

SUBMISSION OF DOCUMENTS



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			26/3/2023																	
Received by ER		محرم باخوم	SUB	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity RESULT OF CROSS HOLE TEST		

NB: Package 1 Only (Package 2 via Aconex)				
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			RESULT OF CROSS HOLE TEST FOOTING P1 PILE P8	
2				
3				
4				
5				
6				
Comments by:			Comments by	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	محمد عبد الحوي			A
Designer				A
GARB *				
ER	Mohammed Gardouh			A
NAT				



إسم العميل : شركة النيل العامة للطرق والكباري
إسم المشروع : كباري مسار الفطار السريع - القطاع الثالث - كوبري ريجوا
الموضوع : اختبارات CHUM
رقم الصادر : E - 188
التاريخ : 2023/03/26

تحية طيبة وبعد ،،،

بالإشارة إلى الموضوع عاليه، مرفق لسيادتكم عدد (2) نسخة من تقرير اختبارات (CHUM) الزيارة التي تمت بتاريخ

2023/03/13 - لعدد (1) خازوق

وتفضلوا سيادتكم بقبول فائق الإحترام ،،،

مكتب النيل الهندسي الاستشاري
د.مهندس/ أنور فاروق القاضي
العضو المنتدب

المرفقات :

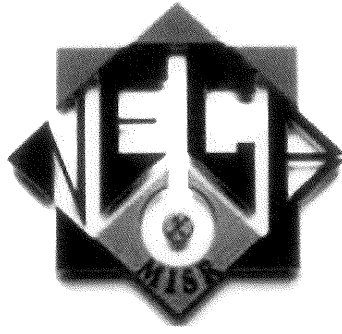
■ عدد (2) نسخة من التقرير.

N.E.C.B	
بيت خبرة هندسي استشاري	
مكتب النيل الهندسي الاستشاري (مصر)	
صادر من رقم : E-188	
رقم المشروع : ٢٠٢٣/٣/٢٦	التاريخ : ٢٠٢٣/٣/٢٦



JAS-ANZ





CROSS-HOLE ULTRASONIC MONITOR (CHUM)

HIGH-SPEED RAIL BRIDGES (3RD SECTOR FROM NILE WEST TO ALAMEIN), REGWA BRIDGE

الهيئة العامة
للطرق والكباري و
النقل الجوي
(GARBLI)



ARAB CONSULTING ENGINEERS
MOHARRAM - BAKHOUM



Report on (1) Concrete Element(S)

Rev	Status	Date	Editor	Checked by
0	Final	13-MAR-2023	SHERIF SALAH, BSc <i>Sherif Salah</i>	DR. ENG. A.P. EL - KADI <i>Dr. Eng. A.P. El-Kadi</i>

This report provides the factual results of the CHUM performed by NECB.

NILE ENGINEERING CONSULTING BUREAU (MISR)

PRO.DR.ING./ FAROUK.I.K.EL KADI

DR.ING. / ANWAR FAROUK ELKADI

EXPERT HOUSE OF ENGINEERING CONSULTANTS

05 Dr. Abdel Hameed Lotfy Street

Po. Box 11371

Nasr City-Cairo-Egypt

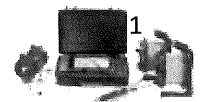
Tel : +2-02-22877600

Fax : +2-02-22700553

E-mail : anwarfelkadi@gmail.com

Internet: www.necb-misr.net

مكتب النيل الهندسي الاستشاري
ش ٢٢ شارع الدكتور عبد الحميد لطفى
مصر ١١٣٧١
هاتف: ٢٢٨٧٧٦٠٠ - ٢٢٧٠٠٥٥٣
فاكس: ٢٢٧٠٠٥٥٣
البريد الإلكتروني: anwarfelkadi@gmail.com
الإنترنت: www.necb-misr.net



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/023.

Checked by : A. F. El-Kadi, PhD.



Document History

Title	NECB Ref.	Rev.	Status	Date	Remark
CSL Report	CSL080/0218/023	0	Formal/ Final	13-03-2023	-



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3^d Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/023.

Checked by : A. F. El-Kadi, PhD.



Contents

1) Introduction.....	4
2) Measuring Technique	5
3) Tested Element(s).....	5
4) 3-D Tomography output (Optional).....	5
5) Conclusion	5
General Tips	6
ANNEXES.....	7
CHUM TEST RESULTS	8
3-D TOMOGRAPHY	9
CHUM Method Statement.....	10

Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/023.

Checked by : A. F. El-Kadi, PhD.



1) Introduction

1.1 Upon the request of "General Nile for Road& Bridges" Cross Hole Ultra Sonic Monitoring (CHUM) following the Project Specifications executed to check the concrete homogeneous for (1) concrete element(s).

1.2 The testing activities can be summarized as follows:

Project /Location	High-Speed Rail Bridges (3rd sector from Nile West to Alamein), Regwa Bridge
Date /Time	13-Mar-2023
Witnessed	Project Engineer; and Client Engineer
NECB Staff	Mohamed Salah, Geotec. Mohamed Ali, Geotec.
No. of tests/Type	1/ Concrete Elements / Bored/ Cast-in situ
CHUM Patern	4 tubes, 6 logs (except if mentioned in item 3 below)
Tested Element (s) Information	As stated in item 3 below and annex 1



Fig. 1 CHUM in Progress



2) The Measuring Technique

2.1 The measuring and the interpretation of the test following ASTM specifications (D6760-17), and AFNOR NF P 94-160-1 (2000) are as shown in the attachments.

2.2 The test equipment (CHUM) manufactured by Piletest UK. The related data are in the attachments.



3) Tested Element(s)

3.1 The tested element (s) data, CHUM input and test output attached in annex 1.

3.2 (6) CHUM logs are available for the tested and reported element(s) arranged as shown in fig.2.

3.3 The tested element(s) have the following dimension:

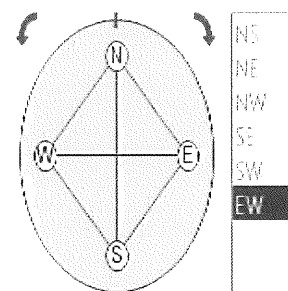


Fig 2 Element with 4 tubes
(6 logs)

S	Pile ID	Type	Dimensions	Available CHUM tubes	Remark
1	P1-P8	Concrete pile	D1.2m / L40.0m	4 /4	-

4) 3-D Tomography output (Optional)

4.1 N/A.

5) Conclusion

Interpretation based on comparing both times interval vs. energy curves, and review wave velocities through test for the tested and reported element. The test results can summarized as follows:



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/023.

Checked by : A. F. El-Kadi, PhD.



5.1 Tested and reported pile # (P1-8) is free from any significant defects, has a homogeneous and good quality concrete, and **Integrity Accepted (up to the end of available CHUM pipes)**.

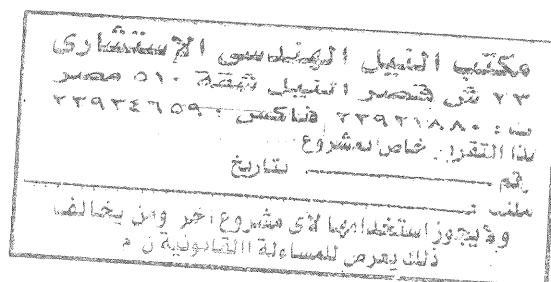
5.2 CHUM results for the tested pile attached in Annex 1.

General Tips

- 1) Low wave velocities near the CHUM tubes zones mean non-uniform tube spacing (green color in 3D Tomography). That will not affect the test results.
- 2) The effective area in 3D Tomography is related to the concrete quality, not the element cross-section.
- 3) Preparing CHUM pipes for test is out of NECB's scope of work.

Cairo, 13 Mar 2023

NILE ENGINEERING CONSULTING BUREAU



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3^d Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/023.

Checked by : A. F. El-Kadi, PhD.



ANNEXES



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3^d Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/023.

Checked by : A. F. El-Kadi, PhD.



CHUM TEST RESULTS



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/022.

Checked by : A. F. El-Kadi, PhD.

CHUM Summary

Pile ID	Profile	Measured length of pipes (m)	Apparent Wave Speed [m/s]	Remarks
P1-P8	12	39.74m	4980	Sound concrete without any significant defect. FAT is very good during the test.
	23	39.74m	4620	
	34	39.74m	4610	
	14	39.74m	4940	
	13	39.74m	4570	
	24	39.74m	4680	

Geotechnical QC&QA Department.

Subject : CHUM Final Report _ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/022.

Checked by : A. F. El-Kadi, PhD.

P1-P8

3/13/2023

Diameter: 1.20m

12

39.74m

Distance: 0.60m

Filter: 1

23

39.74m

Distance: 0.60m

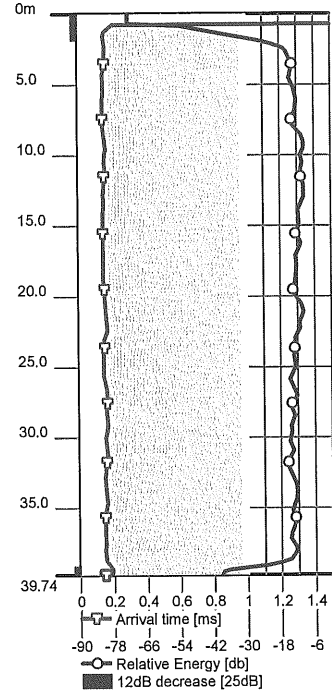
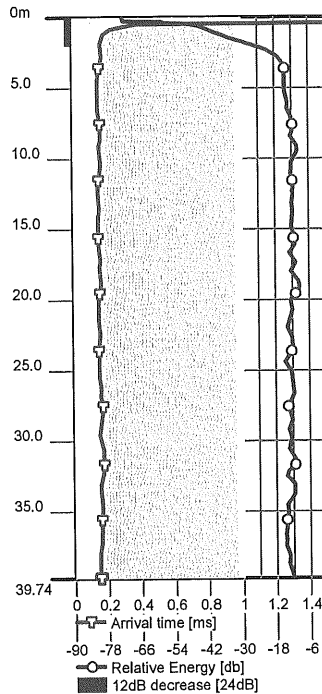
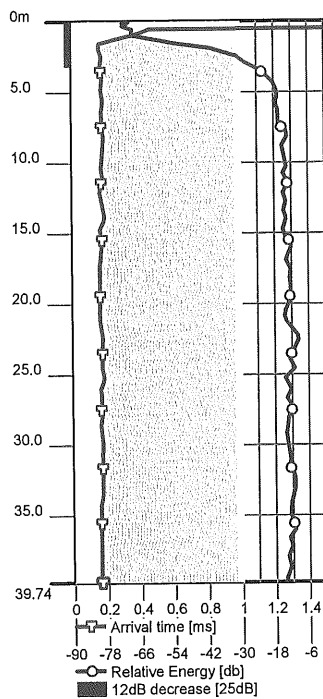
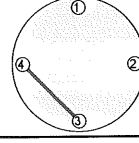
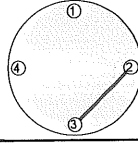
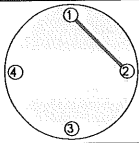
Filter: 1

34

39.74m

Distance: 0.60m

Filter: 1



Geotechnical QC&QA Department.

Subject : CHUM Final Report _ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/022.

Checked by : A. F. El-Kadi, PhD.

P1-P8

3/13/2023

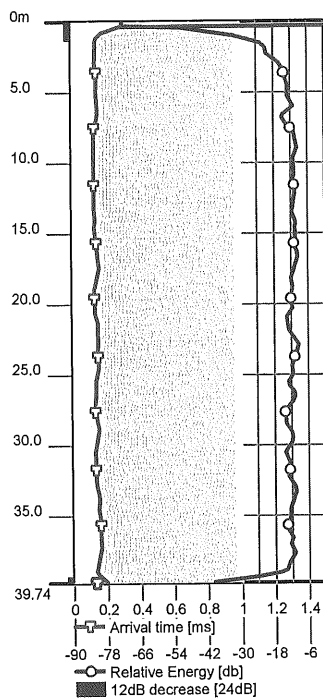
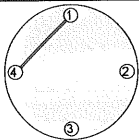
Diameter: 1.20m

14

39.74m

Distance: 0.60m

Filter: 1

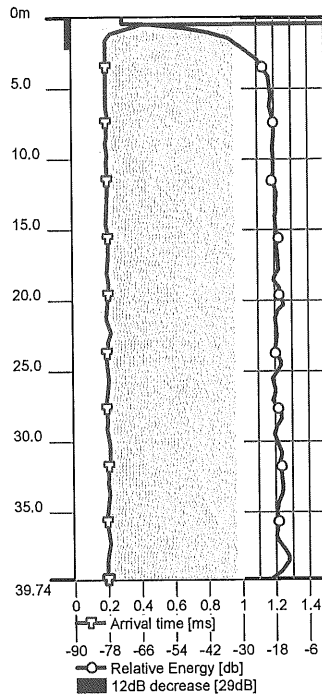
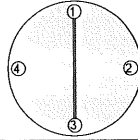


13

39.74m

Distance: 0.85m

Filter: 1

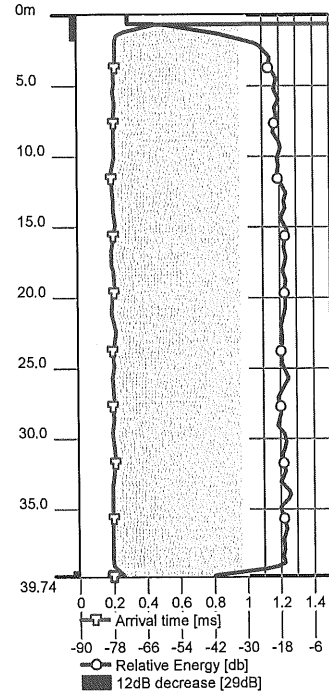
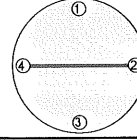


24

39.74m

Distance: 0.85m

Filter: 1



Geotechnical QC&QA Department.

Subject : CHUM Final Report _ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/023.

Checked by : A. F. El-Kadi, PhD.



3D TOMOGRAPHY

N/A

Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM080/0218/023.

Checked by : A. F. El-Kadi, PhD.



CHUM Method Statement



PRO.DR.ING./ FAROUK.I.K.EL KADI
DR.ING. / ANWAR FAROUK EL KADI
Expert House Of Engineering Consultants

05 Dr. Abdel Hameed Lotfy Street
Po. Box 11371
Nasr City-Cairo-Egypt
Tel : +2-02-22877600
Fax : +2-02-22700553
E-mail : anwarfelkadi@gmail.com
Internet: www.necb-misr.net

Table of Content

Item	Description	Page
1.	General	03
2.	Access	03
3.	Data Collection	04
4.	Testing Equipment and Tools	04
5.	Data Processing Techniques	05
6.	Interpretation of results	05
7.	Equipment calibration	05



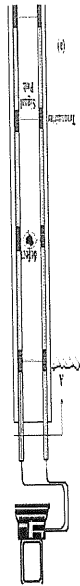
PRO.DR.IRG./ FAROUK.I.K.EL KADI
DR.IRG. / ANWAR FAROUK EL KADI
Expert House Of Engineering Consultants

05 Dr. Abdel Hameed Lotfy Street
P.O. Box 11371
Nasr City-Cairo-Egypt
Tel : +2-02-22877600
Fax : +2-02-22700553
E-mail : anwarfelkadi@gmail.com
Internet: www.necb-misr.net

1) General

- Cross Hole Ultra Sonic Monitor (CHUM) test is for checking the integrity of newly placed drilled shafts, seal footings, and slurry or diaphragm walls. CHUM test relies on the propagation of ultrasonic waves between two or more access tubes to measure the velocity and signal strength of the propagated waves. The testing can be performed on any concrete foundation provided two or more access tubes or core holes capable of holding water are present in the foundation. CHUM can also be used to check the integrity of underwater concrete piers and foundations by strapping access tubes to the sides. Cross hole Tomography can be performed to image critical anomalies found in CHUM tests.

- CHUM tests are typically performed on concrete, particularly concrete drilled shafts. Other materials, which support the transmission of ultrasonic waves, can be tested, such as slurry, rock, grout, water-saturated media, and cemented radioactive wastes.

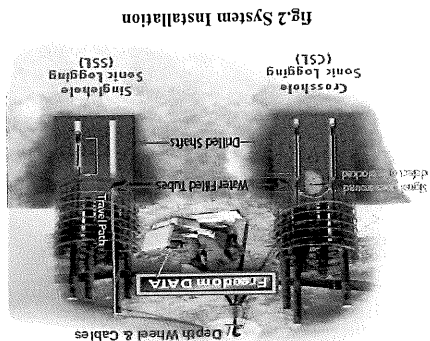


Standards for CHUM method include ASTM D6760 for integrity testing of concrete deep foundations and ACI 228.2R for NDE applications, and FLH 521.830 for determining pulse velocity through concrete in drilled shafts.

2) Access

above the top of the shaft to compensate for the water displaced by the source, receiver, and cables and to allow for easy access. Tubes must be bonded to the concrete for good test results. To minimize de-bonding of tubes, water should be added immediately before or after concrete placement and the tubes should not be mechanically disturbed.

- At least two tubes are needed to perform CHUM test. For good coverage of the test shaft, the following number of tubes be installed is recommended:



- Access tubes must be installed before the construction of the drilled shaft for quality assurance purposes unless core holes are to be drilled in a forensic case.
- PVC or black steel tubes (U.S. schedule 40) are typically used. The tubes are 1.5 (steel tubes only) to 2 inches (38 to 50 mm) in diameter and are typically tied to the rebar cage to ensure close to vertical positions of the tubes.
- The typical tube thickness shall be between 2.0 to 3.0 mm.
- The tubes must extend at least 30cm



PRO.DR.ING./ FAROUK.I.K.EL KADI
DR.ING. / ANWAR FAROUK EL KADI
Expert House Of Engineering Consultants

05 Dr. Abdel Hameed Lotfy Street
Po. Box 11371
Nasr City-Cairo-Egypt
Tel : +2-02-22877600
Fax : +2-02-22700553
E-mail : anwarfelkadi@gmail.com
Internet: www.necb-misr.net

Shaft Diameter	Recommended Number Of Tubes	Tube Spacing
D < 2.5 ft (0.75m)	2 minimum	180 Degree
2.5 < D < 3.5 ft (1.0 m)	3 minimum	120 Degrees
3.5 < D < 5.0 ft (1.5 m)	4 minimum	90 Degrees
5.0 < D < 8.0 ft (2.5 m)	6 minimum	60 Degrees
8.0 < D >	8 minimum	45 Degrees

- The concrete in the shaft should normally be allowed at least (5) days to cure hardened concrete before testing. If "PVC" tubes are used, testing should be done within 10 days after the placement of concrete due to possible tube-concrete de-bonding.

It is very important to fill tubes with clean water immediately before or within one hour after concrete placement. This action inhibits the de-bonding of concrete from the tube. Cap or Seal tube tops to keep out debris.

Also, all CHUM tubes should be prepared using pure water and refilled using pure water at least 24 hr before starting the CHUM test.

CHUM pipes should be leveled before start the test activities.

Tube Grouting

- After CHUM testing is completed and the engineer has accepted the shaft, withdraw the water from access tubes and any other drilled holes. Then fill tubes and holes completely with approved grout mix.

3) Data Collection

- In the CHUM test, the source is lowered to the bottom of one of the tubes, and the receiver is lowered to the bottom of another tube. The source and receiver are pulled simultaneously to allow the horizontal ultrasonic pulse velocity to be

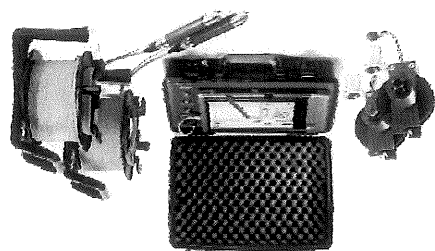


Fig.3 CHUM Equipment

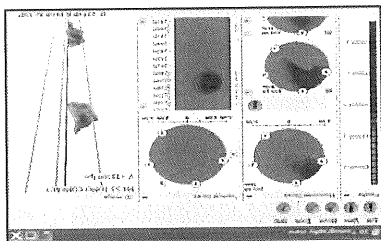
- Testing equipment fig. 3 consists of:
 - o Heavy Duty Computer;
 - o Two Hydro-phones;
 - o Depth Controller wheel; and
 - o Two Cables wheels;

4) Testing Equipment and Tools

A depth wheel controls the measured. A depth wheel controls the resolution of the collected data. Typically, the source is excited every 0.2 ft (6 cm) vertically and a measurement is taken. The source and receiver are pulled to the top of each shaft, thus giving a complete assessment of the concrete quality between the two tubes. CHUM tests are typically performed between all the perimeter tubes to check the perimeter of the shaft. Additional opposing diagonal CHUM tests are also performed to check the integrity of the inner core of the shaft. If there are more than 4 tubes and an anomaly is identified, CHUM tests may be performed of sub diagonal tube pairs to further define an anomaly. A pair of tubes can be logged and the results displayed in less than approximately 5 minutes. The Freedom data PC with the Cross hole Ultrasonic monitor system (CHUM) is used for the collection and analysis of CHUM data.

intrusions. In some severe defects, the signal may be completely lost.
- The variance in the arrival time between CHUM logs is due to the variance in tube spacing.

7) 3D Tomography (optional - fig. 5)



5) Data Processing Techniques
-The collected data from CHUM measurements between two tubes at all depths are saved in one file. The file is scanned to determine first-wave arrival times and energy levels at all depths. A CHUM log shows either the arrival time (or velocity) and signals energy plots vs. depth.
-CHUM system can easily scan any concrete element with enough tubes pairs as mentioned in table 1 above. The quality of the results is affected by the quality bonding between both concrete and steel tubes.

6) Interpretation of results

- In uniform, good quality concrete, the travel time between vertical equidistant tubes will be relatively constant and correspond to reasonable concrete pulse velocity from the bottom to the top of the foundation (see fig. 4).

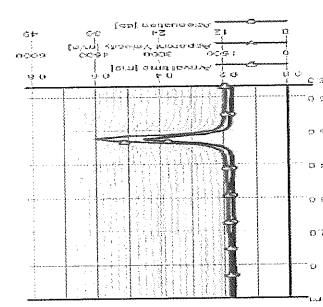


Fig. 4 CHUM interface (Arrival Time along pile length, and Energy,

- CHUM test will also produce records with good signal amplitude and energy in good quality concrete. Longer travel times and lower amplitude/energy signals indicate the presence of irregularities such as poor quality concrete, void, honeycomb, and soil

- The latest calibration certificate for CHUM will attached in the final report.

8) Equipment calibration

- 3D Tomography used for evaluate the concrete quality using wave velocity variation along pile length as follows:
I. Sound wave velocity over 4200m/s excellent concrete;
II. Sound wave velocity over 3657m/s very good concrete;
III. Sound wave velocity 3048 to 3657m/s accept concrete and;
IV. Sound wave velocity less than 3048 m/s questionable concrete.
-The real concrete low quality or shaft defects be clear when receiving the same defective zone on both travelling time - energy curve and 3D tomography. otherwise maybe tube debonding or local ineffective low material quality.

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			7/9/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (25))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:	30 kg/cm ²		
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	11:30 pm	Concrete Volume:	51 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			7/9/2022	A



BAUER EGYPT



SYSTRA

ACE CONSULTING ENGINEERS
MOHARRAM BAKHOUM

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	9
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	7/9/2022
Pile No.	P25	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.53m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.435
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.33 m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585399.934	830504.063
Actual	585399.941	830504.057
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	0.75

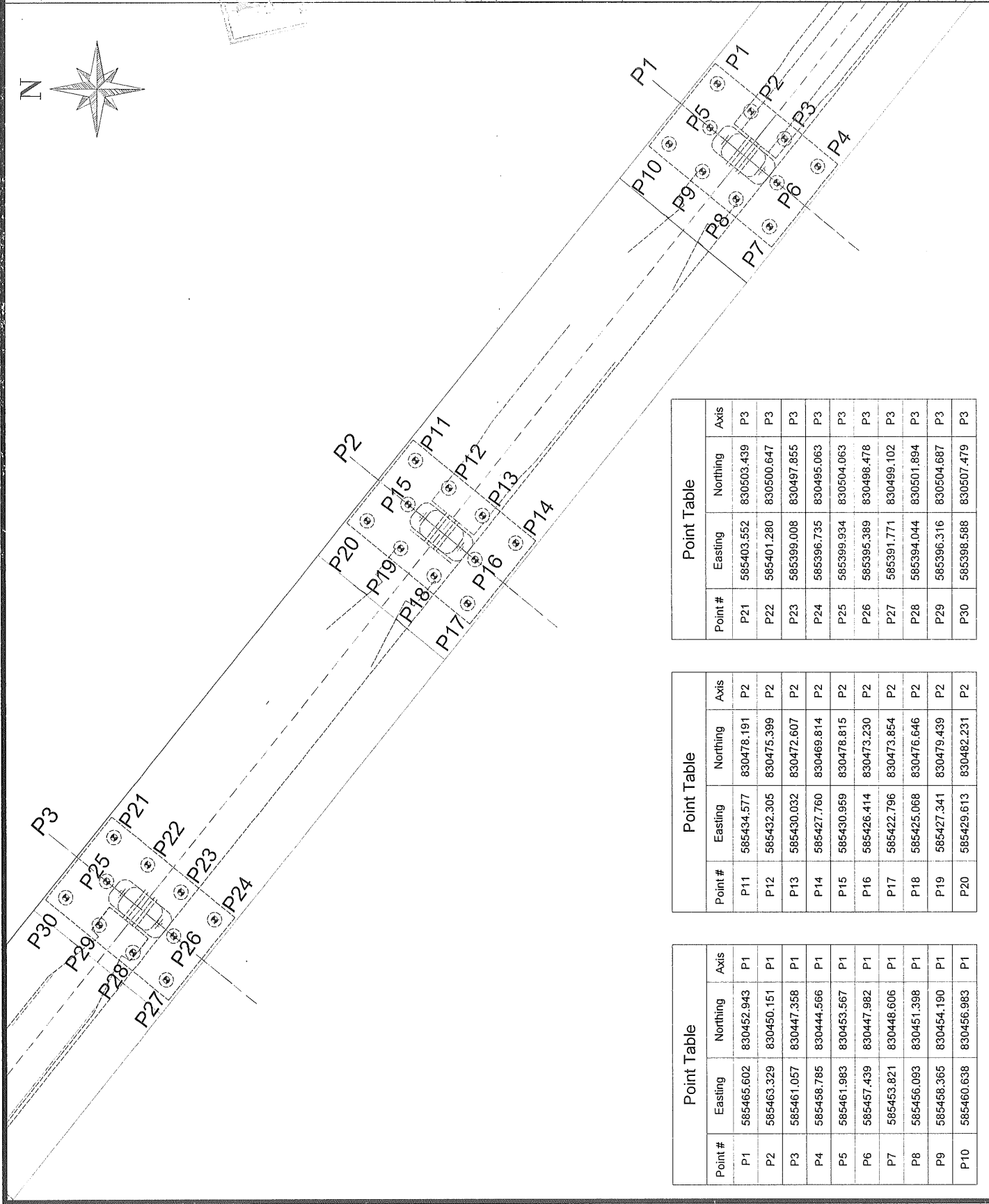
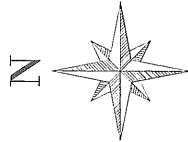
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	6/9	12:30	15:30	Cleaning	-	-	-	
Install Cages	7/9	10:50	12:00	Pouring	7/9	13:30	14:42	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:

-ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
-ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.

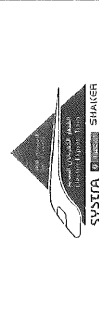


NO.	DATE	BY	REVISION
01	09/2022	K.A.	ISSUED FOR CONSTRUCTION

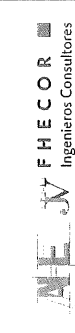
OWNER
 جمهورية مصر العربية
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للطرق والكباري
 والقول البري
 GENERAL

NAME OF PROJECT
 ELECTRIC RAIL EXPRESS TRAIN (HIGH SPEED RAIL)
 SECTION THREE (FROM WEST OF TALE TO AL-JAHIL)

NAME OF OWNER CONSULTANT
 SYSTRA



NAME OF CONTRACTOR CONSULTANT
 FHECOR



NAME OF CONTRACTOR
 REGWA



REGWA BRIDGE PILES COORDINATES FOR APPROVED AXIS FROM P1 - P3			
POINT NO.	DATE	DESIGNED BY	CHECKED BY
P1 - P3	09/2022	Eng. Mohamed Lashin	Eng. Javad Taher
DRAWING NO.		SCALE	
REGWA-001		1:100	
DESIGNED BY		CHECKED BY	
Eng. Mohamed Lashin		Eng. Javad Taher	
APPROVED BY		APPROVED BY	
Eng. Javad Taher		Eng. Javad Taher	

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.006	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى وادى النطرون)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 25
Dimension : 15*15*15 cm
Date of casting : 05/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	03/10/2022	28	8.661	118800	528	560
2	05/09/2022	03/10/2022	28	8.418	128900	573	
3	05/09/2022	03/10/2022	28	8.731	130400	580	

التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عربى
مدير المصنع

Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - Tel: 2672572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel: 29844136 / Fax: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

إيجيبت ميدكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

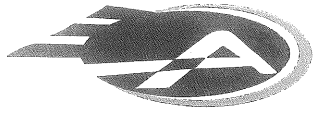
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٥ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

الإدارة

موقع العمل



Al Amal Ready mix

الأمل
للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ٦٠ مليون جنيه
والمصدر ٢٥ مليون جنيه

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

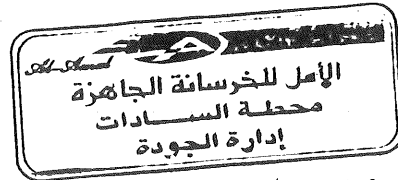
PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B25
Dimension : 15*15*15 cm
Date of casting : 07/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	07/09/2022	14/09/2022	7	8.389	93580	416	454
2	07/09/2022	14/09/2022	7	8.451	104700	465	
3	07/09/2022	14/09/2022	7	8.524	108200	481	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

مركز هليوبوليس



ناصر الماس

Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katamia - Pfart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriael Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقريف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com

GENERAL NOTES

- 1. All dimensions are in millimeters.
- 2. The pile cap and pile dimensions are as indicated.
- 3. The pile cap and pile dimensions are as indicated.
- 4. The pile cap and pile dimensions are as indicated.
- 5. The pile cap and pile dimensions are as indicated.
- 6. The pile cap and pile dimensions are as indicated.
- 7. The pile cap and pile dimensions are as indicated.
- 8. The pile cap and pile dimensions are as indicated.
- 9. The pile cap and pile dimensions are as indicated.
- 10. The pile cap and pile dimensions are as indicated.

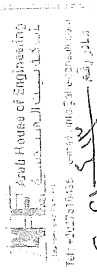
All Levels should be marked before construction in site

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.F = Top of Footing
- T.O.P = Top of Pile
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

DRAWING REFERENCES

- REINFORCED CONCRETE BRIDGE
- REINFORCED CONCRETE BRIDGE
- REINFORCED CONCRETE BRIDGE
- REINFORCED CONCRETE BRIDGE
- REINFORCED CONCRETE BRIDGE
- REINFORCED CONCRETE BRIDGE
- REINFORCED CONCRETE BRIDGE
- REINFORCED CONCRETE BRIDGE
- REINFORCED CONCRETE BRIDGE
- REINFORCED CONCRETE BRIDGE



NO.	DATE	REVISION
1	2010/01/01	ISSUED FOR CONSTRUCTION AS PER REVIEW
2	2010/01/01	NOTICE NO. 001

OWNER
 GENERAL CONTRACTOR
 GENERAL CONTRACTOR
 GENERAL CONTRACTOR
 GENERAL CONTRACTOR
 GENERAL CONTRACTOR
 GENERAL CONTRACTOR
 GENERAL CONTRACTOR
 GENERAL CONTRACTOR
 GENERAL CONTRACTOR
 GENERAL CONTRACTOR

NAME OF PROJECT
 SECTION THREE (FROM WEST OF NAJRA TO ALMAJRA)
 NAME OF OWNER CONSULTANT

NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR

NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR

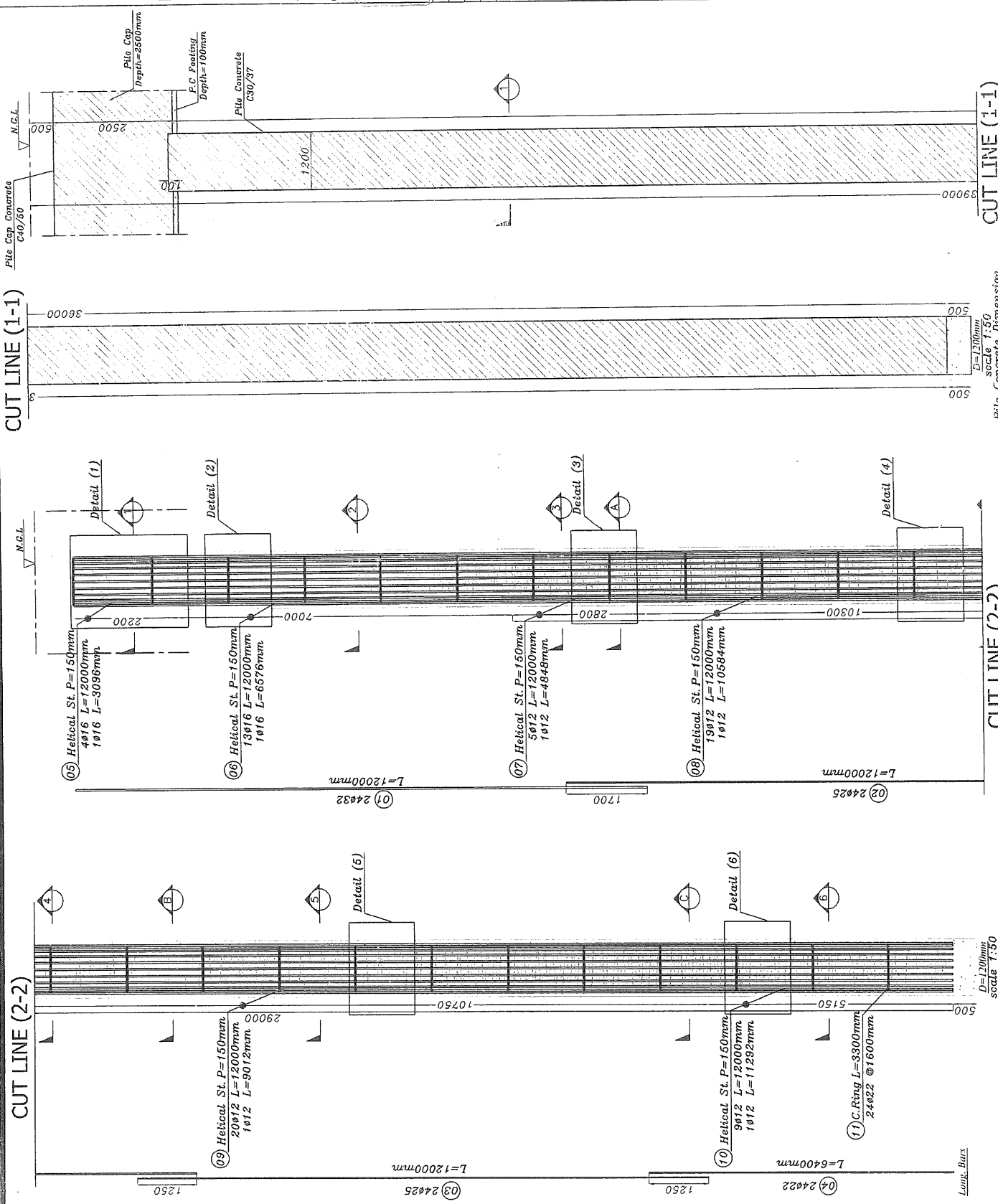
NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR

NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR

NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR

NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR

NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR
 NAME OF CONTRACTOR



CUT LINE (1-1) Pile Concrete Dimensions scale 1:50
 CUT LINE (2-1) Pile Concrete Dimensions scale 1:50
 CUT LINE (2-2) Pile R.R.T scale 1:50

[illegible]

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Natural Ground Level

SRF-V001-CC-010-001-NOT-ED2	REGWA ROAD BRIDGE GENERAL NOTES ABUTMENT 1, DEFINITIVE
SRF-V001-CC-210-002-PHE-ED2	REGWA ROAD BRIDGE SUBSTRUCTURE PIERS #1, P2, P3, REINFORCEMENT

Arab House of Engineering
Tel: 402761472

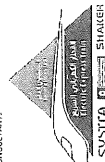
DATE	TIME	REVISION
0	01:00:20Z	1AAS

ISSUED FOR CONSTRUCTION AS PER REVIEW
INVOICE No. 1069

وزارة النقل
الهيئة العامة للنقل والكباري
وزارة النقل
MINISTRY OF TRANSPORT
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
OWNER:
مصلحة مطارات وموانئ
وزارة النقل

ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF MILE TO ALABAMA)

JOURNAL OF CLIMATE

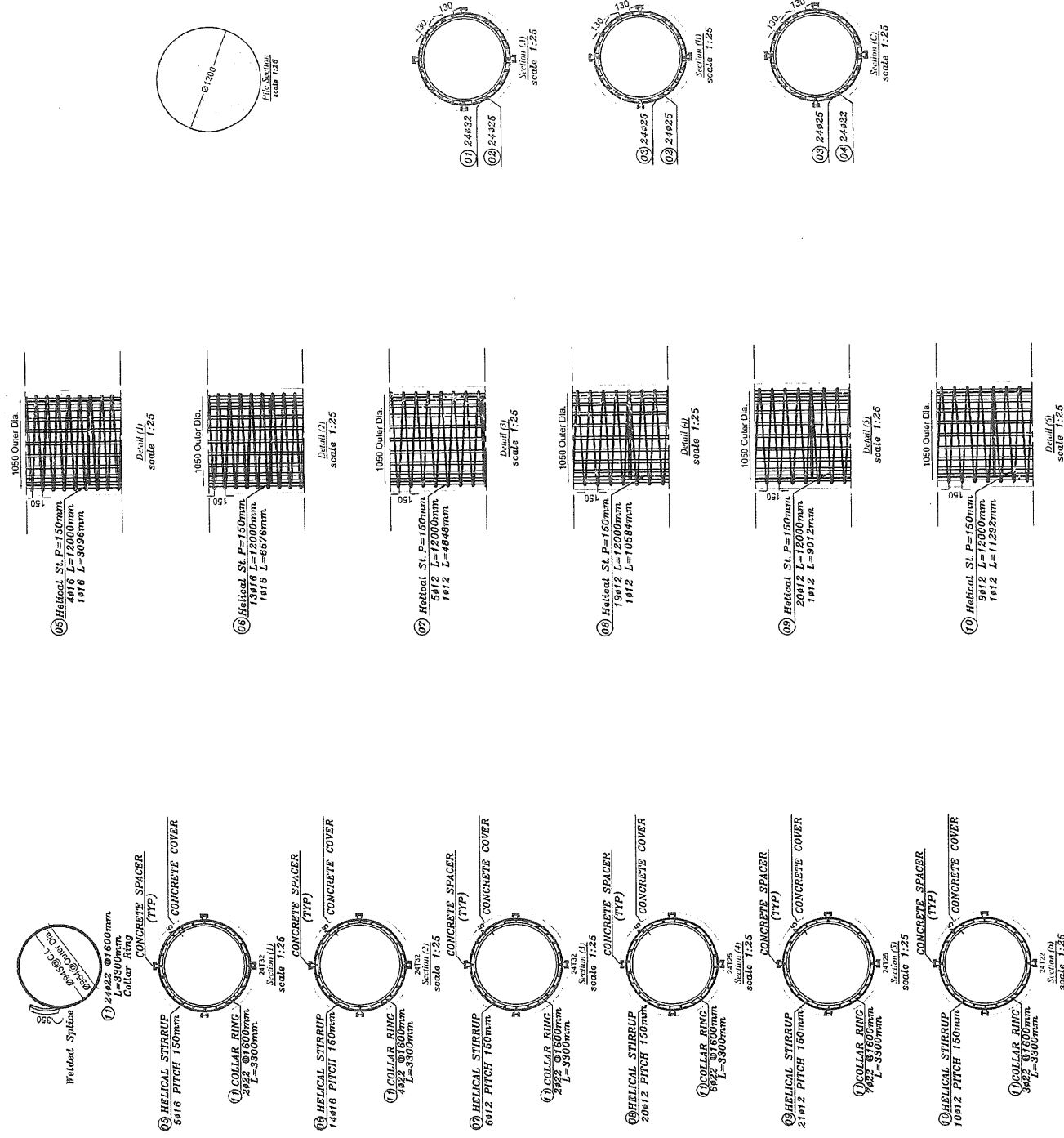


V
FHECOR
Ingenieros Consultores

PILE REINFORCEMENT BARS SHOP DRAWING

HSR-201-SD-110-001 #1E-EO	06-2022	AS SHOWN
DRAWING BY: ENG. Fahim Fazy	CHECKED BY: ENG. Abdullah Mahgoub	REVISED BY: ENG. Mohamed Salah

SUPERVISOR:	APPROVED BY:	DATE:
OR Mahmoud Lashin	Egon Jaster Tucke	1/25/2003



REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			5/9/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (26))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 350 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 12:59 pm	Concrete Volume: 51 m3			
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			5/9/2022	A

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	7
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	5/9/2022
Pile No.	P26	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.37 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.280
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.17m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585395.389	830498.478
Actual	585395.398	830498.485
BAUER Survivor		

Geotechnical Log

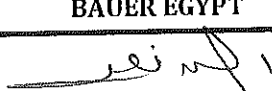
0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

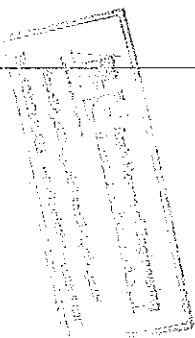
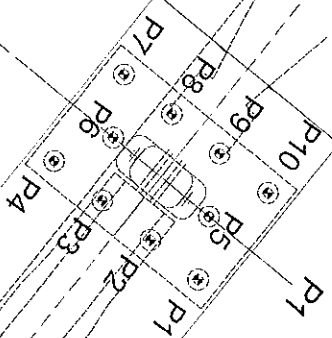
Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	36	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	1.2

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	4/9	13:30	19:35	Cleaning	-	-	-	
Install Cages	5/9	10:43	12:05	Pouring	5/9	12:59	14:17	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			



OWNER
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والكابري
والنقل البحري
القاهرة
EGYPT



DATE, NO.	DATE	PAGE
PC0040	06/20/22	1 255

SUPERVISION	APPROVED BY
DR. Mahabubur Rashid	Ena Javed Tahir

Point Table			
Point #	Easting	Northing	Axis
P21	565405.552	830503.439	P3
P22	565401.280	830500.647	P3
P23	565399.008	830497.855	P3
P24	565396.735	830495.063	P3
P25	565399.934	830504.063	P3
P26	565399.389	830498.478	P3
P27	565391.771	830499.102	P3
P28	565394.044	830501.894	P3
P29	565396.316	830504.687	P3
P30	565396.588	830507.479	P3

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

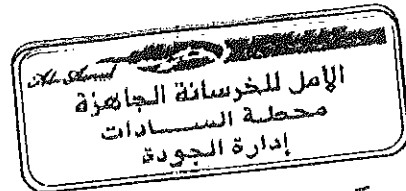
PROJECT : مشروع القطار الكهربائي السريع (كوبرى وادى النطرون)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B26
Dimension : 15*15*15 cm
Date of casting : 05/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	12/09/2022	7	3.630	104400	464	453
2	05/09/2022	12/09/2022	7	8.560	99360	442	
3	05/09/2022	12/09/2022	7	8.687	101900	453	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

مركز هليوبوليس



تامر بالم



Al-Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 26
Dimension : 15*15*15 cm
Date of casting : 07/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	03/10/2022	28	8.557	130900	582	564
2	05/09/2022	03/10/2022	28	8.491	119400	531	
3	05/09/2022	03/10/2022	28	8.661	130400	580	

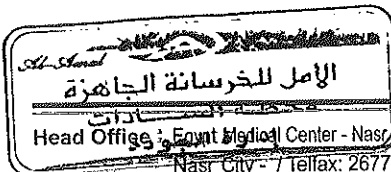
التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع



Head Office : El Nasr Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Pfort 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧).
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٥ - ٧٠٠٣
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			7/9/2022								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (25))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 30 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 11:30 pm			Concrete Volume: 51 m3	
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			7/9/2022	A



SVSTFA

ACE CONSULTING ENGINEERS
MOHARRAM EL-KHAYMA

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	9
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	7/9/2022
Pile No.	P25	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.53m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.435
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.33 m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585399.934	830504.063
Actual	585399.941	830504.057
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

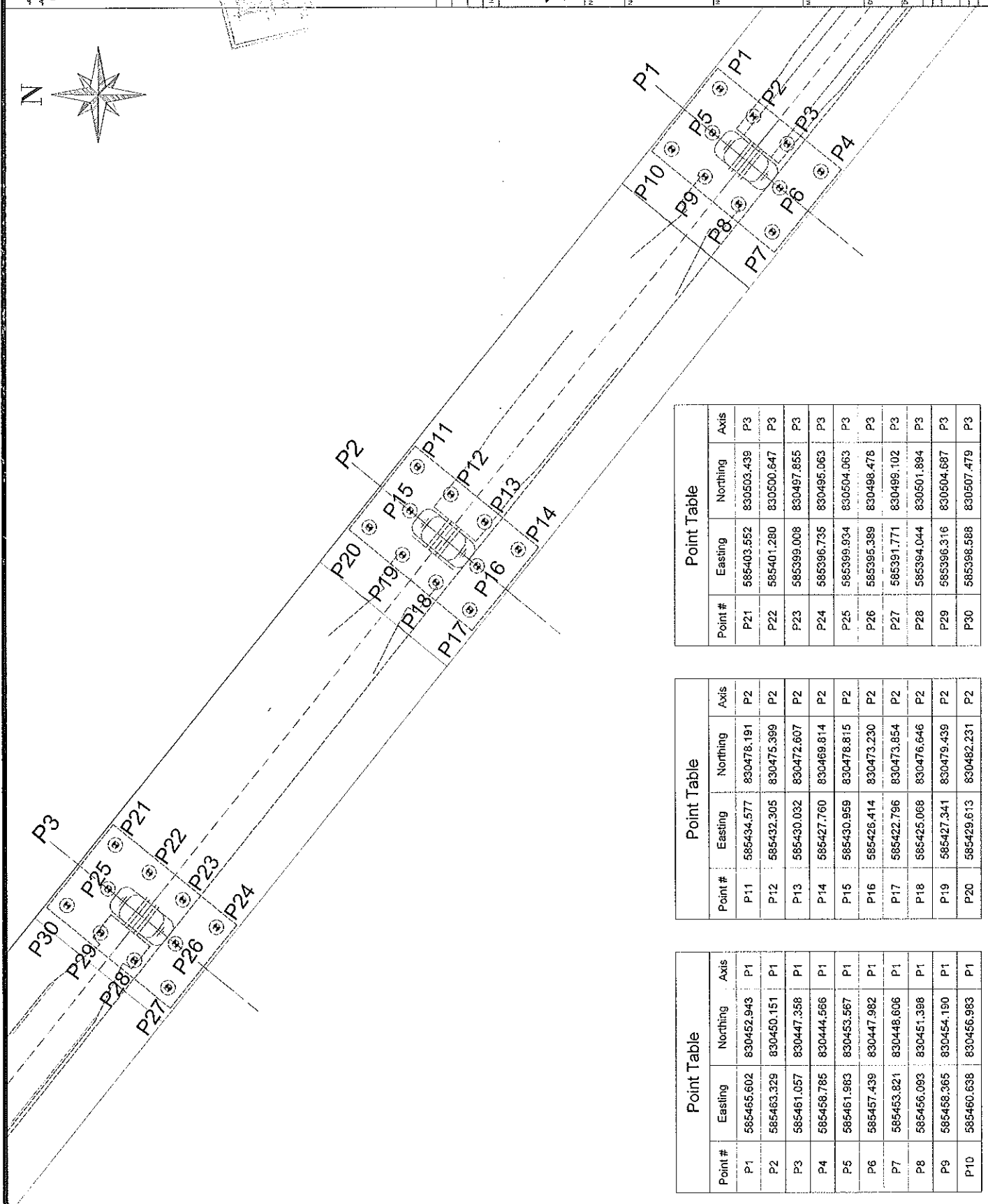
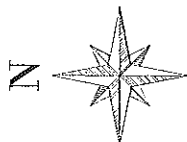
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	0.75

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	6/9	12:30	15:30	Cleaning	-	-	-	
Install Cages	7/9	10:50	12:00	Pouring	7/9	13:30	14:42	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON EDM EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585451.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585451.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Point Table			
Point #	Easting	Northing	Axis
P-11	585434.577	830478.191	P2
P-12	585432.305	830475.399	P2
P-13	585430.032	830472.607	P2
P-14	585427.760	830469.814	P2
P-15	585430.959	830478.815	P2
P-16	585426.414	830473.230	P2
P-17	585422.796	830473.854	P2
P-18	585425.068	830476.646	P2
P-19	585427.341	830479.439	P2
P-20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.847	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.399	830498.478	P3
P27	585391.771	830495.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.558	830507.479	P3

00	UN-2022	K.A	ISSUED FOR CONSTRUCTION	REVISION
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				

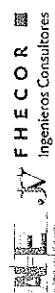

 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والكابون
 والنقل البري
 مرسى عبدة على البحر
 ١٩٨٢
 ١٩٨٢

NAME OF PROJECT	DATE
ELECTRICAL EXPRESS TRAIN/HIGH SPEED RAIL SECTION THREE FROM WEST OF MILE TO ALABAMA	11-10-07

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR/CONSULTANT



MAIN CONTRACTOR



NO. TITLE
REGWA BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM PT : P3

MFGNO.	PICAGE	DATE	COS-7026	SUM : 150
DRAWING BY Elio Khedair Alga	DESIGNED BY Eng Mahmoud Saleh			
SUPERVISOR DR. Mohamed Elwanly		APPROVED BY Elio Jaber Iones		



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الاسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والصندوق ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى وادى النطرون)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 25
Dimension : 15*15*15 cm
Date of casting : 05/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	03/10/2022	28	8.661	118800	528	560
2	05/09/2022	03/10/2022	28	8.418	128900	573	
3	05/09/2022	03/10/2022	28	8.731	130400	580	

التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع

Head Office: Egypt, Madinet Nasr - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - Tel: 2672572 - 26573307

Planet: New Cairo, Katania - Pfort 82 - 83

Tel: 29844136 / Fax: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrelal Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس: ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤٠١٠٩ / ف: ٢٩٨٤١١٣٦

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٥ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

الإدارة

موقع العمل



Al Amal Ready mix

الأمل
للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرحس به ٦٠ مليون جنيه
والمصدر ٢٥ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

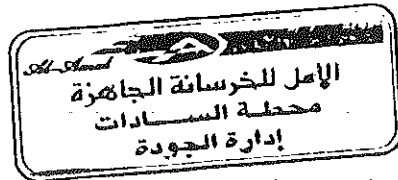
PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B25
Dimension : 15*15*15 cm
Date of casting : 07/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	07/09/2022	14/09/2022	7	8.389	93580	416	454
2	07/09/2022	14/09/2022	7	8.451	104700	465	
3	07/09/2022	14/09/2022	7	8.524	108200	481	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

مركز هليوبوليس



ناصر الماس

Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katamia - Pfart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industreial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقريف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٥ - ٧٠٠٣
ت : ٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com

All services for 20 million
Do not need them either. All services for 20 million
Do not need them either.

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Beating
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

MEGWA HONG DRUG CO	MEGWA HONG DRUG CO
GENERAL NOTES	GENERAL NOTES
AMOUNT 1, DEFINITION	AMOUNT 1, DEFINITION
STRUCTURE	STRUCTURE
PICRSP1, PZ, P3, REINFORCEMENT	PICRSP1, PZ, P3, REINFORCEMENT

And House of Engineering

	DATE	MAS	ISSUED FOR CONSTRUCTION AS PER REVISED NOTICE No. 10079	DIVISION
	DATE	CAC		

OWNER:

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT

وزارة النقل
MINISTRY OF TRANSPORT

الهيئة العامة للنقل والكابري
والتنقل البري

قناة السويس لخطوط النقل

قناة السويس

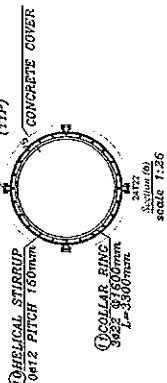
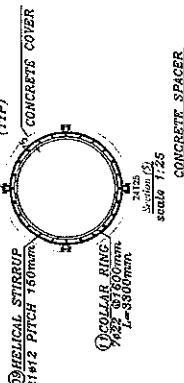
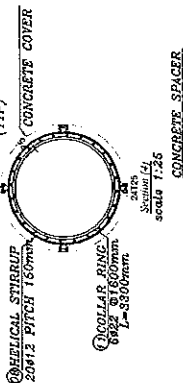
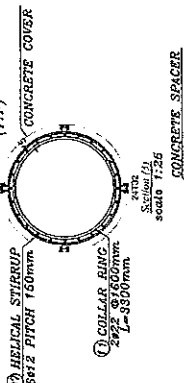
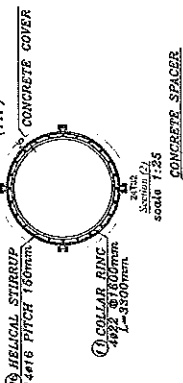
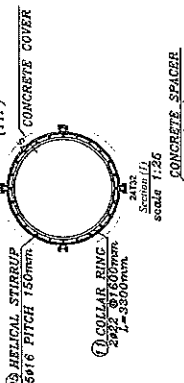
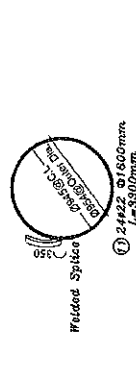
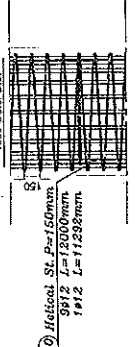
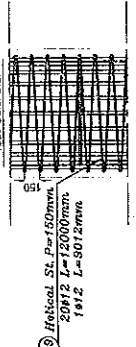
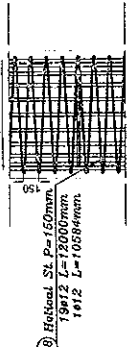
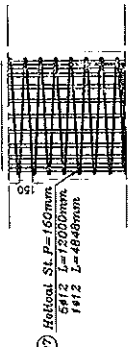
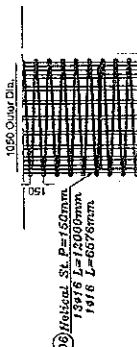
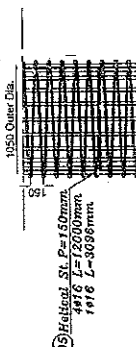
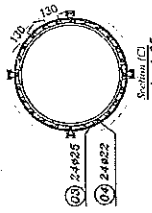
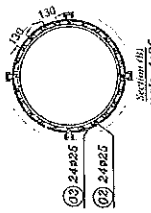
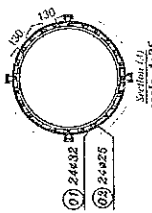
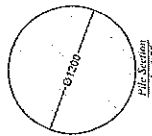
NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF MILE TO ALABAMA)

NAME OF CONTRACTOR CONSULTANT: **FHECOR** Ingenieros Consultores

الجمهورية العراقية
وزارة التعليم والبحث العلمي

HWY. TITLE: RECWA ROAD BRIDGE
MILES AT AXES (P1,P2&P3)
PILE REINFORCEMENT BARS SHOWN

WFO NO.:	DATE:	SOURCE:
CHANGING DT:	CHRONOLOG DT:	AS SCHEDULED
REG. EXPIRY DATE:	END ASSAULT MONTH:	END MONTH DATE:
1		may
SUPERVISORS:		APPROVED DT:
DR. MULLANATH LAKSHMI		END ASSAULT MONTH:



REQUEST to POUR CONCRETE



Contractor Company			Designer Company		
Issued by Contractor	Name	Sign	Date	Time	
Received by ER		محرم باخوم	30/8/2022		
Contractor Reference	النيل العامة				

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (2 7))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 30 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 7:38 pm	Concrete Volume: 51 m3			
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			30/8/2022	A



SVSTRA

ACE CONSULTING ENGINEERING
MOHARRAM EL-DOKKI

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	3
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	30/8/2022
Pile No.	P27	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.75 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.05 m ³	Temporary Casing Level	69.660
Act. Drilling Length	41 m	Act. Concrete Q	50.5 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.55 m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585391.771	830499.102
Actual	585391.764	830499.105
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

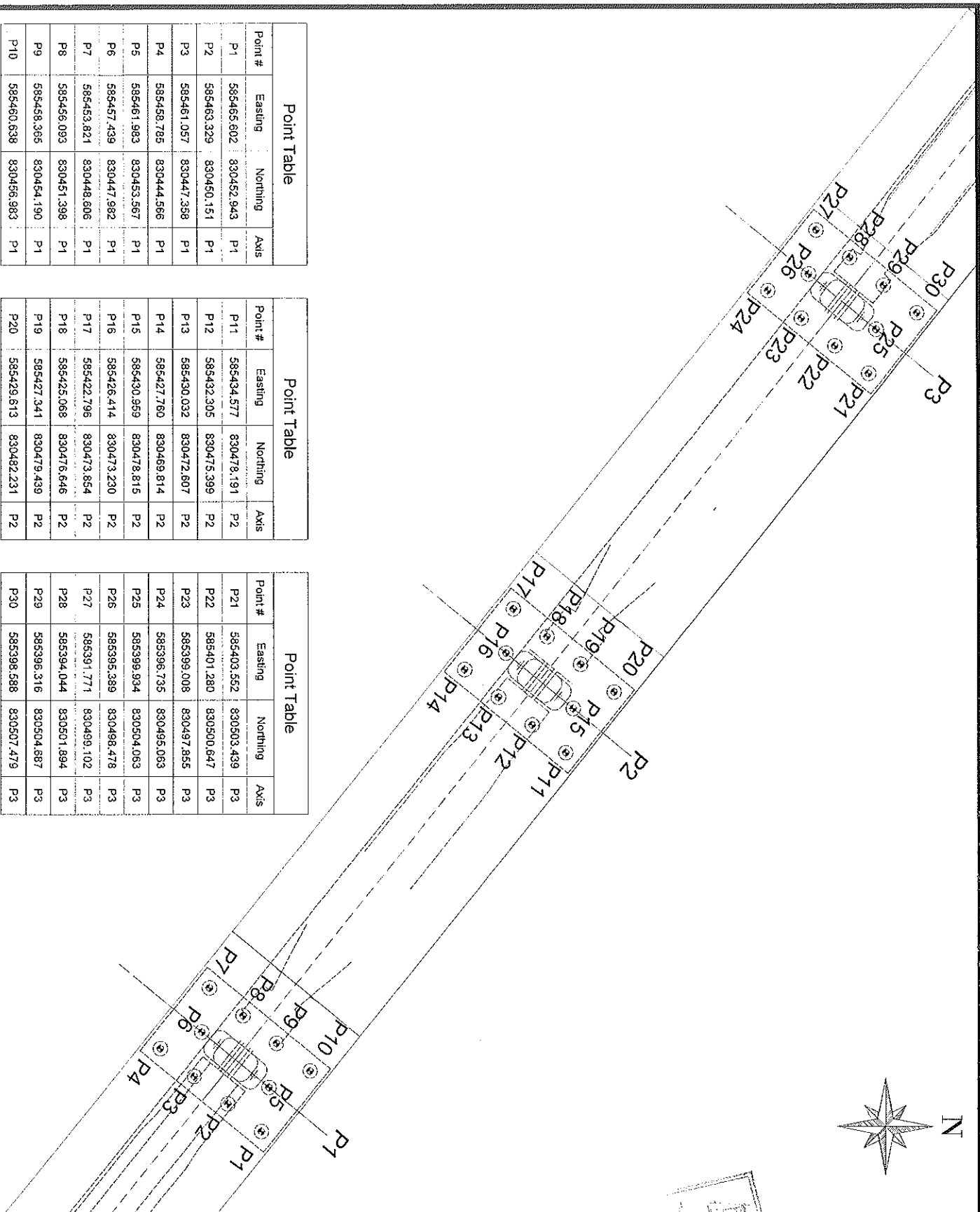
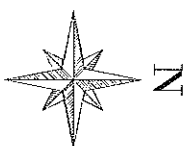
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	36
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	30/8	11:18	16:43	Cleaning	-	-	-	
Install Cages	30/8	17:20	18:34	Pouring	30/8	19:38	21:15	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:
- ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
- ALL COORDINATES ARE BASED ON THE ADJUTANT TRANSVERSE
- MENTIONED AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P1	585456.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.884	P3
P29	585396.316	830504.887	P3
P30	585398.588	830507.479	P3

OWNER
MINISTRY OF ELECTRICITY
GENERAL DIRECTORATE OF ELECTRICITY
GENERAL DIRECTORATE OF ELECTRICITY
GENERAL DIRECTORATE OF ELECTRICITY

DESIGNER
FHECOR Ingenieros Consultores

CLIENT
REGIVA BRIDGE

PROJECT
PILES COORDINATES FOR APPROVED AXIS

DATE
2022

REVISION
1.00

APPROVED BY
[Signature]

DATE
2022

PROJECT
ELECTRICAL EXPRESS TRANSMISSION LINE

SECTION
SECTION THREE FROM WEST OF ILE TO ALUMINI

SCALE
1:1000

DATE
2022

REVISION
1.00

APPROVED BY
[Signature]

DATE
2022

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B27
Dimension : 15*15*15 cm
Date of casting : 30/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

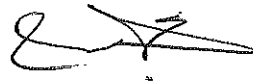
NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	30/08/2022	27/09/2022	28	8.451	130300	579	566
2	30/08/2022	27/09/2022	28	8.378	128600	572	
3	30/08/2022	27/09/2022	28	8.521	122900	546	

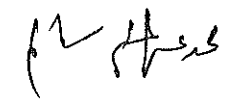
التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عرابى
مدير المصنع







Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industriai Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس: ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٠ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

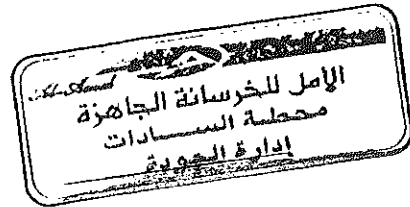
**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B27
Dimension : 15*15*15 cm
Date of casting : 30/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	30/08/2022	03/09/2022	4	8.667	88640	394	393
2	30/08/2022	03/09/2022	4	8.671	89770	399	
3	30/08/2022	03/09/2022	4	8.499	86980	387	

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

مركز هليوبوليس



تامر مالح

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B27
Dimension : 15*15*15 cm
Date of casting : 30/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	30/08/2022	06/09/2022	7	8.388	89800	399	420
2	30/08/2022	06/09/2022	7	8.643	97820	435	
3	30/08/2022	06/09/2022	7	8.592	95940	426	

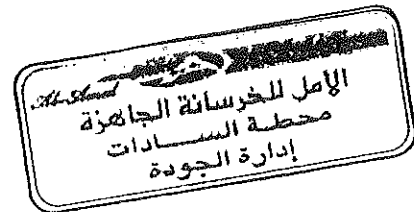
التوقيع:

مهندس / أحمد عرابى
مدير المصنع

(Signature)

مركز صليبيس

(Signature)



(Signature)

[illegible]

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Natural Ground Level

CURE-VOL-1 CC-010-D01-1-01-E02	REGWA ROAD BRIDGE GENERAL NOTES ADDENDUM 1, DUE TO INCON
CURE-VOL-1 CC-710-D02-MIS E02	REGWA ROAD BRIDGE SUBSTRUCTURE PIERS P1, P2, P3, REFORMER

Arab House of Engineering
2027014135

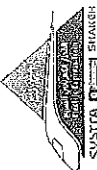
NO.	DATE	ENG.	REV.	REVISION	ISSUED FOR CONSTRUCTION AS PER REVISION
0	3/4/2011	11/13			NOTION No. 1009



جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والكابلات
والنقل البري
وزارة النقل والاتصالات
مصلحة العامة للنقل والاتصالات
OWNER:

NAME OF PROJECT: ELECTRICAL CAPLESS THRU(HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF RILE TO ALABAMA)

NAME OF OWNER CONSULTANT:



NAME OF CONTRACTOR CONSULTANT:

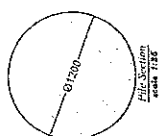
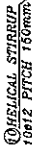
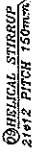
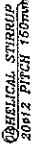
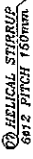
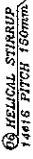
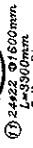
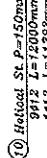
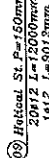
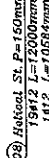
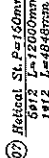
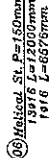
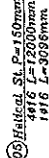
V
FHECOR 
Ingenieros Consultores

MAIN CONTRACTOR:

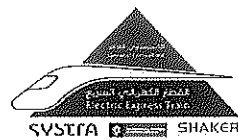


NO. AND TITLE:

ENCL NO. 2	DATE: 08-19-02	SCALE	AS SHOWN
MSD-1001-50-110-01 (R) (S)	CHECKED BY: ENG. Robert Frazier	DRAWING BY: ENG. Robert Frazier	REVIEWED BY: ENG. Matthew Torgue
			
SUPERVISOR:		APPROVED BY:	
MR. Matthew Torgue		MR. Matthew Torgue	



REQUEST to POUR CONCRETE



Contractor Company			Designer Company		
Issued by Contractor	Name	Sign	Date	Time	
			12/9/2022		
Received by ER		محرم باخوم	CON	C1	C2
				C3	DD
				MM	YY
				HH	MM
Contractor Reference	النيل العامة				

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (28))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 30 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 6:40 pm	Concrete Volume: 51 m3			
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			12/9/2022	A



EGYPT



SYSTEMA

AG CONSULTING ENGINEERS
MOHAMMAD BAKHOU

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	13
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	12/9/2022
Pile No.	P28	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.742 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.649
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.54

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585394.044	830501.894
Actual	585394.052	830501.886
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

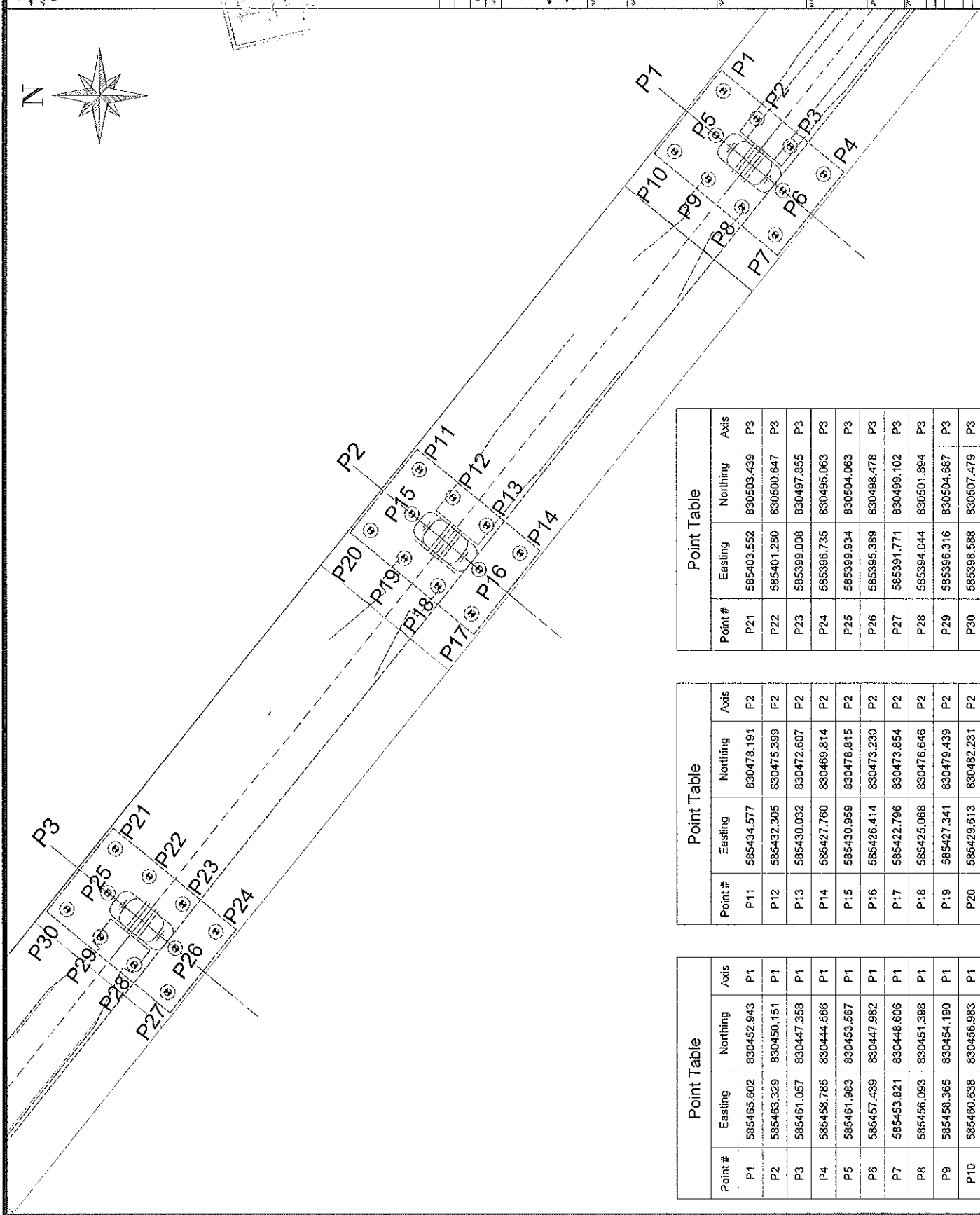
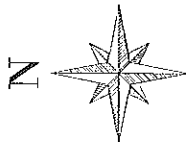
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.03	Less Than 1.5	1.06
Viscosity(Sec.)	30:70 Sec.	35	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	1

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	12/9	9:10	16:00	Cleaning	-	-	-	
Install Cages	12/9	16:30	17:20	Pouring	12/9	18:40	20:10	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

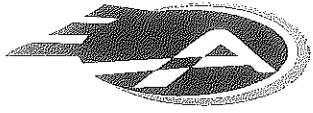
ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERIDATOR) AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point Table				
Point #	Easting	Northing	Axis	
P11	585434.577	830478.191	P2	
P12	585432.305	830475.399	P2	
P13	585430.032	830472.607	P2	
P14	585427.760	830469.814	P2	
P15	585430.959	830478.815	P2	
P16	585426.414	830473.230	P2	
P17	585422.796	830473.854	P2	
P18	585425.068	830476.646	P2	
P19	585427.341	830479.439	P2	
P20	586429.613	830482.231	P2	

Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.557	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.538	830456.983	P1



Al Amal Ready mix

الأمل
للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ١٠ مليون جنيه
والمصدر ٧٥ مليون جنيه

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B28
Dimension : 15*15*15 cm
Date of casting : 12/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	12/09/2022	19/09/2022	7	8.418	107600	478	482
2	12/09/2022	19/09/2022	7	8.537	101800	452	
3	12/09/2022	19/09/2022	7	8.501	116100	516	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

الاستشارى

جودة المشروع

Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572

Planet : New Cairo - Kalamia - Pfar 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقريف

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢

موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com

website : www.alamalreadymix.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B28
Dimension : 15*15*15 cm
Date of casting : 12/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

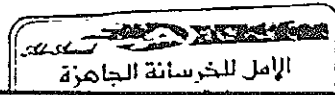
NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	12/09/2022	10/10/2022	28	8.521	125700	559	555
2	12/09/2022	10/10/2022	28	8.377	131200	583	
3	12/09/2022	10/10/2022	28	8.498	117400	522	

التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عبد الرحمن
مدير المصنع



الإدارة : أيجيت موبيل ملل - مدينة نصر - المنطقة العشرة - الدور الخامس وحدة (١٠٧) - ٢٣٥٧٢٢٠٧ - ٢١٧٧٢٥٧٢
Head Office : Egypt - New City - 7th District - Fifth Floor Unit (437) - 23572207 / 23573307
مدينة نصر / تليفون : ٢٣٥٧٢٢٠٧ - ٢١٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - المنطقة لطفه ٨٢ - ٨٧
ت : ٢١٨٨١١٣٦ / ف : ٢١٨٨١١٣٦
مدينة السادات - المنطقة الصناعية لطفه ٧٠٠٢ - ٧٠٠٥
ت : ٠١٨ / ٢١٣٠١١٥ - ف : ٠١٨ / ٢١٣٠١١٥
٠١٠٠٢١٧١١٧ - ٠١٠٠٢١٨٨٠١٣٥ - ٠١٠٢١٨١٥١١٧٣
Planet : New Cairo - Katamia - Part 82 - 83
Tel: 29341138 / Fax: 29340109
01227855596 - 01068844170 - 01006033880
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel: 048 2630145 / Fax: 048 2630140
01028459673 - 01006880635 - 01004976497
E-mail: info@alamarreadymix.com
website: www.alamarreadymix.com

[illegible]

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Columns
- T.O.P = Top of Pile Caps/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

BASELINE MEASUREMENTS	RECON- GEN- ABUTAL	RECON- SUB	PIERS PL. P2
SHNE-V001-CC-010-001-H05-E10			
SHNE-V001-CC-210-002-HE-F02			

Dr. Sub Hoque of Engineering
Department, Bangladesh University of
Engineering and Technology

DATE	FILE	REVISION
0	MAE	ISSUED FOR CONSTRUCTION AS PER INTERVIEW NOTICE NO 1000


 وزارة النقل
 ARAB REPUBLIC OF EGYPT
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والكابري
 والنقل الجوي
 GARNET

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (HIGH NEST OF NILE TO NUMBERS)

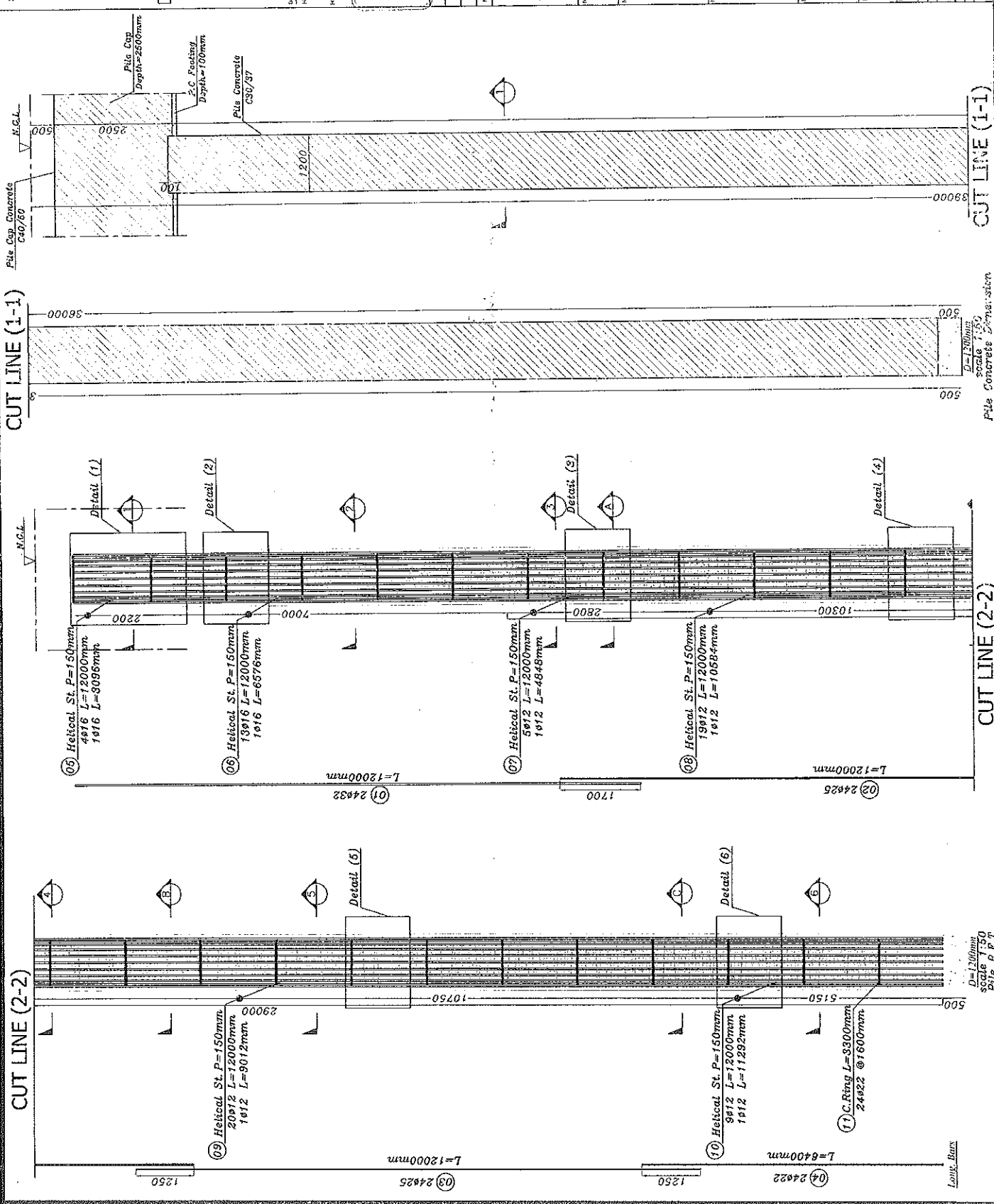


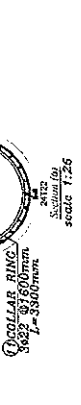
UNITE DI CONTRACTIOM CONSULTANT



MINISTRY OF EDUCATION
GOVERNMENT OF INDIA

DATE: 06-20-2012	AS SHOWN	SCALE:
DRAWING NO.: 000-000-000-1140-01-100	REVIEWED BY:	
DESIGNED BY: ETC. Abdullahi Mohamed	APPROVED BY:	
DATE: 06-20-2012	AS SHOWN	SCALE:
DRAWING NO.: 000-000-000-1140-01-100	REVIEWED BY:	
DESIGNED BY: ETC. Abdullahi Mohamed	APPROVED BY:	





REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			15/9/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (23))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐ Grade: 30 kg/cm ²
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour: 2:50 pm	Concrete Volume: 51 m3		

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			15/9/2022	A



BAUER EGYPT



SYSTRA

ACE CONSULTING ENGINEERS
MOHAMMAD BAKIYOUNBored Piles Construction
Pile Record SheetPile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	17
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	15/9/2022
Pile No.	P29	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.6 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.03 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.570
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.46

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585396.316	830504.687
Actual	585396.322	830504.678
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

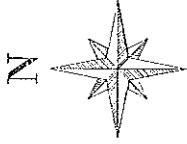
Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.06
Viscosity (Sec.)	30:70 Sec.	33	≤90 Sec.	37
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	15/9	7:00	10:00	Cleaning	-	-	-	
Install Cages	15/9	11:20	14:00	Pouring	15/9	14:50	16:00	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			



NOTES

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON THE EGYPTIAN TRANSVERSE
MERIDIAN AS PER THE RECEIVED SITE SURVEY.

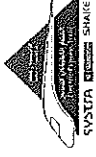


NO.	DATE	BY	REVISION
01	08/02/22	K.A.	ISSUED FOR CONSTRUCTION

OWNER
الهيئة العامة للغمر والملاحة
ARAB REPUBLIC OF EGYPT
GENERAL AUTHORITY OF
CANALS AND WATERWAYS
CARET

NAME OF PROJECT
ELECTRICAL EXPANSION THREE HIGH SPEED 4RIL
SECTION THREE (FROM WEST OF FILE TO HAWASHI)

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT
FHECOR
Ingenieros Consultores



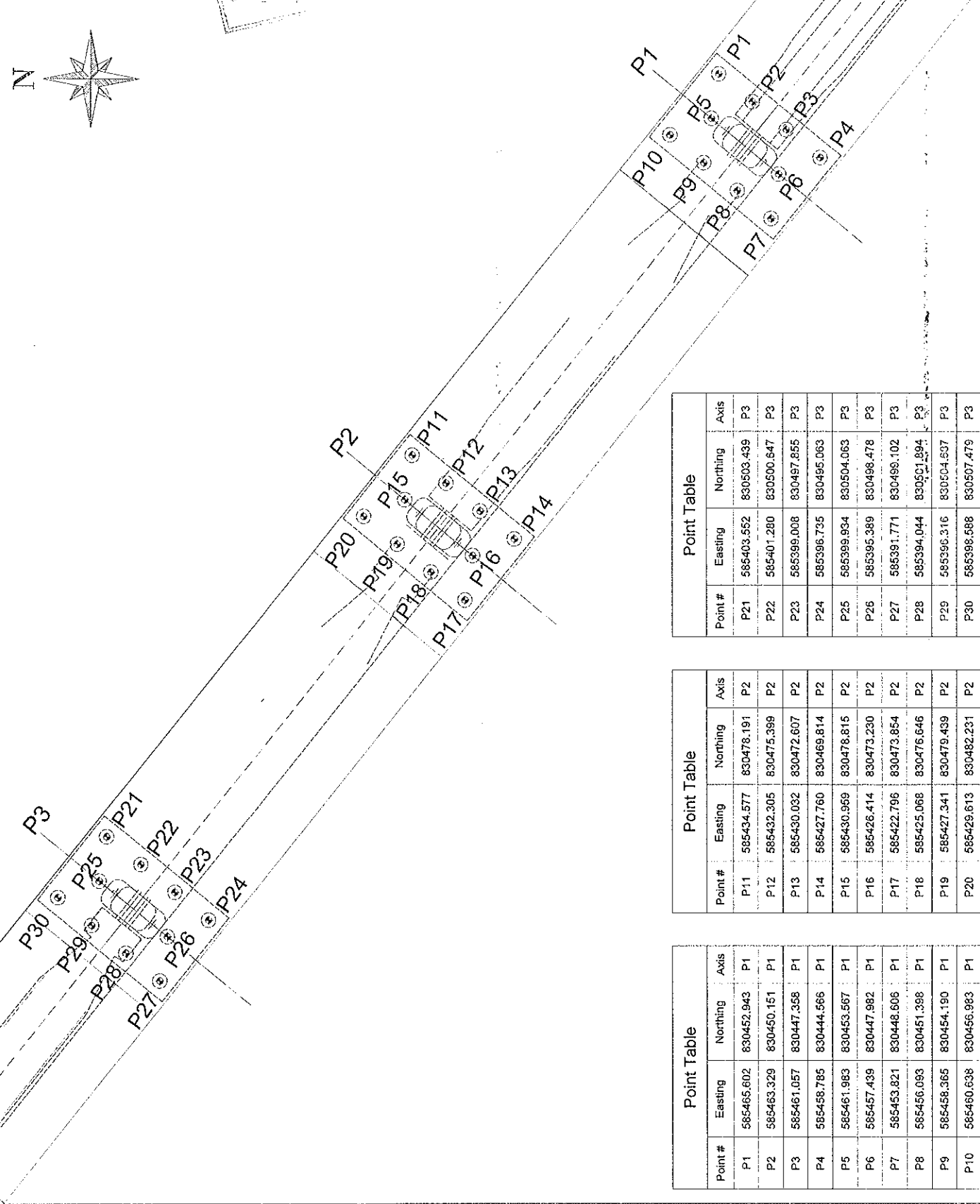
SCALE
1:150

DATE
08/02/22

DRAWING BY
Eng. Mohamed A. El-Sayed

CHECKED BY
Eng. Mohamed A. El-Sayed

APPROVED BY
DR. Mohamed El-Sayed



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830496.478	P3
P27	585391.771	830490.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.507	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830475.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.587	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.608	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م.
رأس المال المرخص به ١٥٠ مليون جنيه
والصندوق ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B29
Dimension : 15*15*15 cm
Date of casting : 15/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	15/09/2022	22/09/2022	7	8.593	106900	475	488
2	15/09/2022	22/09/2022	7	8.346	108800	484	
3	15/09/2022	22/09/2022	7	8.395	114000	507	

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

الاستشارى
[Signature]

جودة المشروع
مركز صلاح بولس
[Signature]

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : مول إيجيبت ميدكال سنتر - الدور الرابع - ش.د. الشيمى - المنطقة العاشرة
مدينة نصر/ تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والصندوق ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B29
Dimension : 15*15*15 cm
Date of casting : 15/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

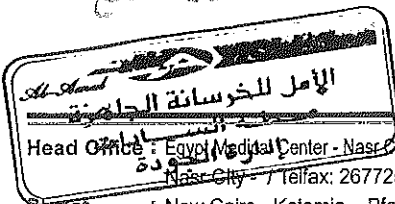
NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	15/09/2022	13/10/2022	28	8.621	146800	652	660
2	15/09/2022	13/10/2022	28	8.432	149100	663	
3	15/09/2022	13/10/2022	28	8.578	149900	666	

التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عرابى
مدير المصنع



Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Tel/fax: 26772572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

الإدارة

: إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر/ تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٦٧٧٢٥٧٢

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٠ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٩٧٣

[illegible]

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

RULIWA ROAD BRIDGE GENERAL NOTES ABUTMENT 1 DETAIL	RECIVA ROAD BRIDGE SUBSTRUCTURE PIERCE PLATE REINFORCEMENT
--	--

NO.	DATE	ENG.	REVISION
0	31-03-2012	MAS	DESIGNED FOR CONSTRUCTION AS PER REVIEW NOTICE NO. 1654


 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والكابري
 والنقل الجوي
 GENERAL AUTHORITY
 OF AIR AND
 MARITIME TRANSPORT

ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF NILE TO ALAMAYNT)

FHECOR
Ingenieros Consultores

PILES AT AXES (P1, P2, P3)
PILE REINFORCEMENT SHOP DRAWING

WORKING NO.	DATE	SCALE
WKS-101-04-1040-10-00	08/2002	A2-300MM
DRAWING BY:	CHECKED BY:	REVIEWED BY:
ENG. Elgiy Parry	ENG. Abdul Nohari	ENG. Muhammad Saleh
		
SUPERVISOR'S		APPROVED BY:
DR. Muhammad Asyraf		ENG. Abdul Tawfik

Total	5672.88
-------	---------

Pile Diameter	Ø12	Ø16	Ø22	Ø25	Ø32
TOTAL LENGTH(M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEOTECHNICAL REPORT.

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			29/8/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (30))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐ Grade: 30 kg/cm ²
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			29/8/2022	A



SYSTRA

AEC CONSULTING ENGINEERS
MOHAMMAD BAKHOUN

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	2
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	29/8/2022
Pile No.	P30	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.56 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.104 m ³	Temporary Casing Level	69.465
Act. Drilling Length	40.8 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.36 m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585398.588	830507.479
Actual	585398.605	830507.474
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	33	≤90 Sec.	36
Sand Content %	Less than 4%	N/A	Less than 2%	1.00

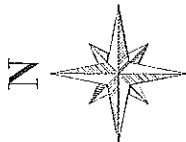
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	29/8	7:30	11:40	Cleaning	-	-	-	
Install Cages	29/8	12:15	13.35	Pouring	29/8	19:20	21:00	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE INDICATED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.



NO.	DATE	REV.	REVISION
1	15/02/2023	1	ISSUED FOR CONSTRUCTION

الجمهورية العربية السورية
جمهورية مصر العربية
وزارة النقل
مجلس إدارة
الهيئة العامة للغاز والكهرباء
والمياه
شركة
مصر
للمشروعات
والتطوير
FHECOR
Ingenieros Consultores

NAME OF PROJECT
ELECTRICAL EXPENSES TRANSFORMER AND
SECTION THREE FROM WEST OF TALE TO LUBRAH
NAME OF OWNER CONSULTANT

NAME OF CONTRACTOR CONSULTANT
FHECOR
Ingenieros Consultores

DATE OF CONTRACTOR CONSULTANT
15/02/2023

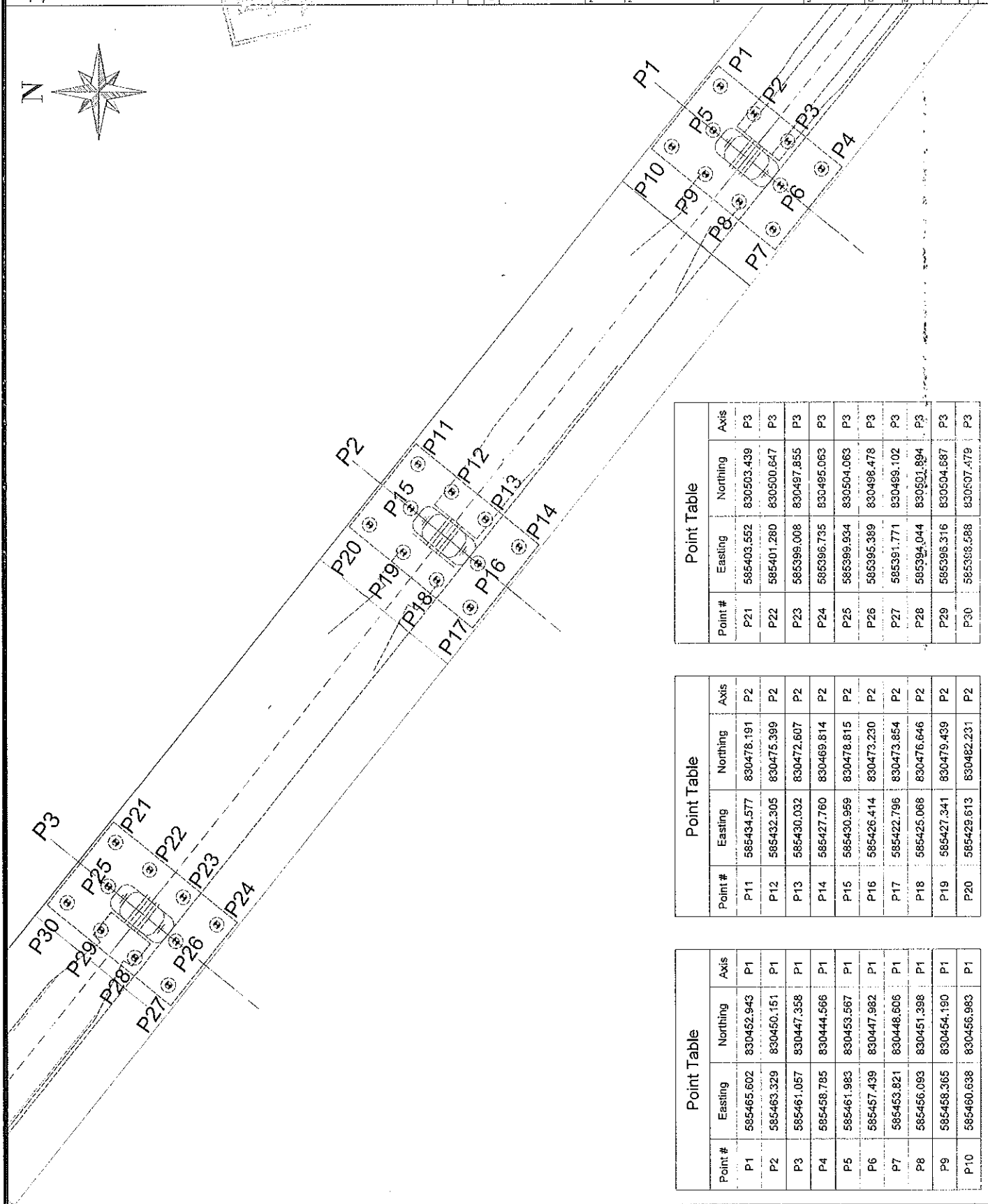
SCALE
1:100

PROJECT TITLE
RECONSTRUCT BRIDGE FOR APPROVED AXIS
PILES COORDINATES FOR APPROVED AXIS
FROM P1 TO P30

DATE
15/02/2023

DRAWN BY
Eng. Mohamed Saleh

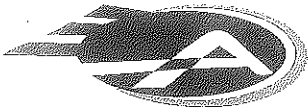
APPROVED BY
Eng. Jassim Lami



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830496.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585398.316	830504.687	P3
P30	585398.288	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٠ مليون جنيه
والمصدر ٢٥ مليون جنيه

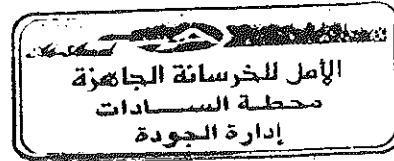
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B30
Dimension : 15*15*15 cm
Date of casting : 29/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	29/08/2022	03/09/2022	5	8.418	95510	424	401
2	29/08/2022	03/09/2022	5	8.479	89660	398	
3	29/08/2022	03/09/2022	5	8.436	85250	379	

التوقيع:

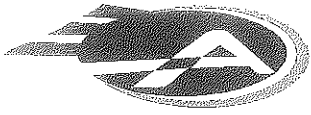
مرکز هالوبوليس مهندس / أحمد عرابى
مدير المصنع



Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrirel Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقرئف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الاسمنتية
رأس المال المخصص به ٦٠ مليون جنيه
والمصدر ٢٥ مليون جنيه

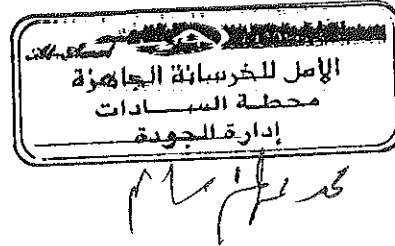
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B30
Dimension : 15*15*15 cm
Date of casting : 29/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	29/08/2022	05/09/2022	7	8.676	87570	389	358
2	29/08/2022	05/09/2022	7	8.618	76090	338	
3	29/08/2022	05/09/2022	7	8.363	77930	346	

التوقيع:

مهندس / أحمد عمر ابى
مدير المصنع



الإدارة : ٤١ ش لوساكا - الدور الثانى شقة ٣ - متفرع من ش محمد المقرئف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katarnia - Pfar 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriai Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت: ٠٤٨ / ٢٦٣٠١٤٥ - ف: ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B30
Dimension : 15*15*15 cm
Date of casting : 29/08/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	29/08/2022	26/09/2022	28	8.689	131800	586	569
2	29/08/2022	26/09/2022	28	8.581	128400	571	
3	29/08/2022	26/09/2022	28	8.661	123700	550	

التوقيع: مهندس / أحمد عزابى
مدير المصنع

مدير عام
مدير المصنع

مدير المصنع

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

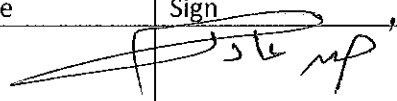
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميدكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤١٠٩٠
٠١٠٦٨٨٤٤١٧٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٠٦٨٨٤٤١٧٠
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٤٩٧٦٤٩٧ - ٠١٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

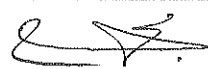
SUBMISSION OF DOCUMENTS



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			٢٠١٨/١٢/٩																	
Received by ER		محرم باخوم	SUB	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		steel bar test

NB: Package 1 Only (Package 2 via Aconex)				
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			Report On Tension and Cold Bend Tests	7
2			Report on chemical analysis test for steel bar specimens	3
3				
4				
Comments by:			Comments by	
التابع مقبولة ولا مانع من العمل. على ان يتم اخذ عينات بصورة دورية طبقاً للمواصفات المعمور				

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
Designer				A
GARB *				
ER	محمد ابراهيم		٢٠١٨/١٢/٩	
NAT				

* Alignment/ Bridges/ Culverts only

رقم التقرير: B0798B/2022

التاريخ: 29/08/2022

تقرير عن نتائج اختبار التحليل الكيميائي على عينات من صلب التسليح

العميل: شركة النيل العامة للطرق والكباري
المشروع: كوبري تقاطع طريق ريجوا من الكم 189+540 الى الكم 189+680
المالك: الهيئة العامة للطرق والكباري
الاستشاري: مكتب محرم باخوم - سيسترا
تم إعداد هذا التقرير بناءً على طلب شركة النيل العامة للطرق والكباري بخصوص إجراء اختبار التحليل الكيميائي على عينات من صلب التسليح.
العينات الموردة:

- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 10 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 12 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 16 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 18 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 22 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 25 مم كود HADIDNA 500DWR .
- عدد "1" عينة صلب تسليح ذو نتوءات بقطر اسمي 32 مم كود EGS ورتبة صلب "B500DWR" طبقاً لما هو وارد بخطاب العميل.

تم توريد العينات إلى الوحدة بتاريخ 11/08/2022 وذلك بمعرفة العميل وعلى مسؤوليته، وقد تم أخذ بيانات العينات من خطاب العميل أو من على العينات.

النتائج

1- عينة صلب تسليح قطر 10 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.32928	0.17006	1.51988	0.01973	0.01946	0.02938	0.00539	0.04283	0.00192	0.00515
Cu %	Nb %	Ti %	V %	W %	Pb %	Sn %	As %	Sb %	Zn %
0.15872	<0.001	0.00060	0.00207	<0.005	0.00404	0.02205	0.02897	0.03350	0.00469
المكافئ الكربوني		0.0340							

رقم التقرير: B0798B/2022

التاريخ: 29/08/2022

2- عينة صلب تسليح قطر 12 مم:

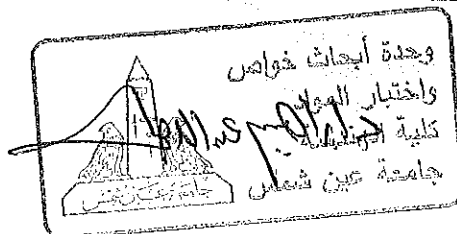
C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.34001	0.21038	1.38039	0.01690	0.02044	0.02901	0.01235	0.06894	0.00230	0.00612
Cu %	Nb %	Ti %	V %	W %	Pb %	Sn %	As %	Sb %	Zn %
0.26864	0.00111	0.00056	0.00226	<0.005	0.00382	0.02138	0.03253	0.02832	0.00413
المكافئ الكربوني		0.60130							

3- عينة صلب تسليح قطر 16 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.32255	0.20032	1.43650	0.01472	0.01781	0.03340	0.00609	0.04549	0.00229	0.00548
Cu %	Nb %	Ti %	V %	W %	Pb %	Sn %	As %	Sb %	Zn %
0.14048	<0.001	0.00080	0.00213	<0.005	0.00434	0.02136	0.03249	0.02748	0.00513
المكافئ الكربوني		0.58269							

4- عينة صلب تسليح قطر 18 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.31215	0.20121	1.44135	0.01980	0.02269	0.03340	0.00569	0.04638	0.00236	0.00564
Cu %	Nb %	Ti %	V %	W %	Pb %	Sn %	As %	Sb %	Zn %
0.14051	0.00176	0.00082	0.00232	<0.005	0.00402	0.02146	0.03725	0.03209	0.00537
المكافئ الكربوني		0.57312							



[Handwritten signature]

رقم التقرير: B0798B/2022

التاريخ: 29/08/2022

5- عينة صلب تسليح قطر 22 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.34562	0.20962	1.36366	0.01552	0.01643	0.03956	0.01049	0.05826	0.00246	0.00785
Cu%	Nb%	Ti%	V%	W%	Pb%	Sn%	As%	Sb%	Zn%
0.25376	0.00209	0.00098	0.00189	<0.005	0.00385	0.01975	0.02643	0.02817	0.00496
المكافئ الكربوني		0.60409							

6- عينة صلب تسليح قطر 25 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.35418	0.17370	1.47633	0.02005	0.01824	0.02260	0.00849	0.04505	0.00221	0.00658
Cu%	Nb%	Ti%	V%	W%	Pb%	Sn%	As%	Sb%	Zn%
0.18224	0.00155	0.00075	0.00246	<0.005	0.00467	0.02008	0.03013	0.02718	0.00630
المكافئ الكربوني		0.62210							

7- عينة صلب تسليح قطر 32 مم:

C %	Si %	Mn %	P %	S %	Cr %	Mo %	Ni %	Al %	Co %
0.35041	0.22069	0.96942	0.02310	0.02192	0.10064	0.01625	0.11050	0.00261	0.01190
Cu%	Nb%	Ti%	V%	W%	Pb%	Sn%	As%	Sb%	Zn%
0.43248	0.00192	0.00132	0.00220	<0.005	0.00451	0.02577	0.03385	0.02639	0.00947
المكافئ الكربوني		0.57200							

قائم بأعمال مدير الوحدة

راجع التقرير

أعد التقرير

وحدة أبحاث خواص واختبار المواد
كلية الهندسة
جامعة عين شمس
د. إبراهيم عبد اللطيف يوسف

كيميائي/ أشرف رزق

Ref. No.: B0798/2022

Date: 28/08/2022

Report on Tension and Cold Bend Tests

Client: شركة النيل العامة للطرق والكباري

Project: كوبري تقاطع طريق ريجوا من الكم 189+540 إلى الكم 189+680

Owner: الهيئة العامة للطرق والكباري

Consultant: مكتب محرم باخوم - سيسترا

Number of Specimens: 21

Type:

Deformed bars

Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		4	5	6
Code		HADIDNA B500DWR		
Nominal Diameter (d_n - mm)		12	12	12
Weight of Specimen (W - g)		281	275	279
Length of Specimen (L - mm)		317	309	310
Weight per Unit	Actual (kg/m')	0.886	0.890	0.900
Length	Deviation from nominal (%)	-0.105	0.293	1.424
Gauge Length (L_o - mm)		60	60	60
Nominal Area (A_n - mm ²)		113.10	113.10	113.10
Yield Load (P_y - ton)		6.50	6.60	6.50
Maximum Load (P_{max} - ton)		8.50	8.50	8.50
Final Length (L_i - mm)		73	74	73
Yield Stress (R_{eH} - N/mm ²)		574.7	583.5	574.7
Tensile Strength (R_m - N/mm ²)		751.5	751.5	751.5
R_m / R_{eH}		1.31	1.29	1.31
Elongation after Breaking (A_5 - %)		21.6	23.3	21.6

(b) Cold Bend Test

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

*Tests were carried out according to ES 262-2/2015 "Steel for the Reinforcement of Concrete".

*All information was taken from the client letter (on his sole responsibility) or from the delivered specimens.

Prepared by
Eng. Karim Mohsen

2/7

Revised by

محمد صلاح

Acting Head of Center
Dr. Ibrahim A. El-Yousfi
جامعة عين شمس

Ref. No.: B0798/2022

Date: 28/08/2022

Report on Tension and Cold Bend Tests

Client: شركة النيل العامة للطرق والكباري
Project: كوبري تقاطع طريق ريجوا من الكم 189+540 إلى الكم 189+680
Owner: الهيئة العامة للطرق والكباري
Consultant: مكتب محرم باخوم - سيسترا
Number of Specimens: 21 **Type:** Deformed bars
Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number	1	2	3
Code	HADIDNA B500DWR		
Nominal Diameter (d_n - mm)	10	10	10
Weight of Specimen (W - g)	195	195	193
Length of Specimen (L - mm)	314	314	313
Weight per Unit	Actual (kg/m)	0.621	0.621
Length	Deviation from nominal (%)	0.778	0.778
Gauge Length (L_0 - mm)	50	50	50
Nominal Area (A_n - mm ²)	78.54	78.54	78.54
Yield Load (P_y - ton)	4.50	4.80	4.80
Maximum Load (P_{max} - ton)	5.70	6.00	6.00
Final Length (L_f - mm)	63	64	64
Yield Stress (R_{eH} - N/mm ²)	572.9	611.1	611.1
Tensile Strength (R_m - N/mm ²)	725.7	763.9	763.9
R_m / R_{eH}	1.27	1.25	1.25
Elongation after Breaking (A_5 - %)	26.0	28.0	28.0

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

*Tests were carried out according to ES 262-2/2015 "Steel for the Reinforcement of Concrete".

*All information was taken from the client letter (on his sole responsibility) or from the delivered specimens.

Prepared by
Eng. Karim Mohsen

1/7

Revised by
د. محمود

وحدة أبحاث خواص واختبار المواد
كلية الهندسة - جامعة عين شمس
Acting Head of Center
Dr. Ibrahim A.L. Yousif

Ref. No.: B0798/2022

Date: 28/08/2022

Report on Tension and Cold Bend Tests

Client: شركة النيل العامة للطرق والكباري
Project: كوبري تقاطع طريق ريجوا من الكم 189+540 إلى الكم 189+680
Owner: الهيئة العامة للطرق والكباري
Consultant: مكتب محرم باخوم - سيسترا
Number of Specimens: 21 **Type:** Deformed bars
Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		7	8	9
Code		HADIDNA B500DWR		
Nominal Diameter (d_n - mm)		16	16	16
Weight of Specimen (W - g)		595	589	590
Length of Specimen (L - mm)		377	374	374
Weight per Unit	Actual (kg/m')	1.578	1.575	1.578
Length	Deviation from nominal (%)	0.045	-0.169	0.000
Gauge Length (L_o - mm)		80	80	80
Nominal Area (A_n - mm ²)		201.06	201.06	201.06
Yield Load (P_y - ton)		11.20	11.00	11.20
Maximum Load (P_{max} - ton)		14.70	14.60	14.70
Final Length (L_i - mm)		98	102	101
Yield Stress (R_{eH} - N/mm ²)		557.0	547.1	557.0
Tensile Strength (R_m - N/mm ²)		731.1	726.1	731.1
R_m / R_{eH}		1.31	1.33	1.31
Elongation after Breaking (A_5 - %)		22.5	27.5	26.2

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

*Tests were carried out according to ES 262-2/2015 "Steel for the Reinforcement of Concrete".

*All information was taken from the client letter (on his sole responsibility) or from the delivered specimens.

Prepared by
Eng. Karim Mohsen
3/7

Revised by
د. محمد هلال

Acting Head of Center
وحدة أبحاث خواص واختبار المواد
واختبار المواد
كلية الهندسة
جامعة عين شمس
Dr. Ibrahim A.L. Yousif

Ref. No.: B0798/2022

Date: 28/08/2022

Report on Tension and Cold Bend Tests

Client: شركة النيل العامة للطرق والكباري
Project: كوبري تقاطع طريق ريجوا من الكم 189+540 إلى الكم 189+680
Owner: الهيئة العامة للطرق والكباري
Consultant: مكتب محرم باخوم - سيسترا
Number of Specimens: 21 **Type:** Deformed bars
Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		10	11	12
Code		HADIDNA B500DWR		
Nominal Diameter (d_n - mm)		18	18	18
Weight of Specimen (W - g)		816	825	832
Length of Specimen (L - mm)		423	428	432
Weight per Unit	Actual (kg/m')	1.929	1.928	1.926
Length	Deviation from nominal (%)	-3.380	-3.456	-3.538
Gauge Length (L_o - mm)		90	90	90
Nominal Area (A_n - mm ²)		254.47	254.47	254.47
Yield Load (P_y - ton)		14.20	14.20	14.10
Maximum Load (P_{max} - ton)		18.60	18.50	18.60
Final Length (L_i - mm)		113	113	111
Yield Stress (R_{eH} - N/mm ²)		558.0	558.0	554.0
Tensile Strength (R_m - N/mm ²)		730.9	727.0	730.9
R_m / R_{eH}		1.31	1.30	1.32
Elongation after Breaking (A_5 - %)		25.5	25.5	23.3

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

*Tests were carried out according to ES 262-2/2015 "Steel for the Reinforcement of Concrete".

*All information was taken from the client letter (on his sole responsibility) or from the delivered specimens.

Prepared by
Eng. Karim Mohsen
4/7

Revised by
د. محمود

وحدة أبحاث خواص واختبار المواد
كلية الهندسة
جامعة عين شمس
Acting Head of Center
Dr. Ibrahim A.L. Yousif

Ref. No.: B0798/2022

Date: 28/08/2022

Report on Tension and Cold Bend Tests

Client: شركة النيل العامة للطرق والكباري

Project: كوبري تقاطع طريق ريجوا من الكم 189+540 إلى الكم 189+680

Owner: الهيئة العامة للطرق والكباري

Consultant: مكتب محرم باخوم - سيسترا

Number of Specimens: 21

Type:

Deformed bars

Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		13	14	15
Code		HADIDNA B500DWR		
Nominal Diameter (d_n - mm)		22	22	22
Weight of Specimen (W - g)		1301	1273	1300
Length of Specimen (L - mm)		455	442	455
Weight per Unit Length	Actual (kg/m')	2.859	2.880	2.857
	Deviation from nominal (%)	-4.130	-3.435	-4.204
Gauge Length (L_o - mm)		110	110	110
Nominal Area (A_n - mm ²)		380.13	380.13	380.13
Yield Load (P_y - ton)		22.00	22.10	22.20
Maximum Load (P_{max} - ton)		28.50	28.50	28.60
Final Length (L_i - mm)		134	133	132
Yield Stress (R_{eH} - N/mm ²)		578.7	581.3	584.0
Tensile Strength (R_m - N/mm ²)		749.7	749.7	752.3
R_m / R_{eH}		1.30	1.29	1.29
Elongation after Breaking (A_5 - %)		21.8	20.9	20.0

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

*Tests were carried out according to ES 262-2/2015 "Steel for the Reinforcement of Concrete".

*All information was taken from the client letter (on his sole responsibility) or from the delivered specimens.

Prepared by
Eng. Karim Mohsen

5/7

Revised by

د. محمود

Acting Head of Center
Dr. Ibrahim A. L. Yousif
جامعة عين شمس

Ref. No.: B0798/2022

Date: 28/08/2022

Report on Tension and Cold Bend Tests

Client: شركة النيل العامة للطرق والكباري
Project: كوبري تقاطع طريق ريجوا من الكم 189+540 إلى الكم 189+680
Owner: الهيئة العامة للطرق والكباري
Consultant: مكتب محرم باخوم - سيسترا
Number of Specimens: 21
Type: Deformed bars
Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		16	17	18
Code		HADIDNA B500DWR		
Nominal Diameter (d_n - mm)		25	25	25
Weight of Specimen (W - g)		1902	1936	1863
Length of Specimen (L - mm)		505	494	485
Weight per Unit Length	Actual (kg/m')	3.766	3.919	3.841
	Deviation from nominal (%)	-2.209	1.756	-0.264
Gauge Length (L_o - mm)		125	125	125
Nominal Area (A_n - mm ²)		490.87	490.87	490.87
Yield Load (P_y - ton)		29.00	28.60	28.60
Maximum Load (P_{max} - ton)		37.50	37.20	37.00
Final Length (L_i - mm)		153	155	154
Yield Stress (R_{eH} - N/mm ²)		590.7	582.6	582.6
Tensile Strength (R_m - N/mm ²)		763.9	757.8	753.7
R_m / R_{eH}		1.29	1.30	1.29
Elongation after Breaking (A_5 - %)		22.4	24.0	23.2

(b) Cold Bend Test

Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

*Tests were carried out according to ES 262-2/2015 "Steel for the Reinforcement of Concrete".

*All information was taken from the client letter (on his sole responsibility) or from the delivered specimens.

Prepared by
Eng. Karim Mohsen

6/7

Revised by

د. محمد باخوم



Ref. No.: B0798/2022

Date: 28/08/2022

Report on Tension and Cold Bend Tests

Client: شركة النيل العامة للطرق والكباري
Project: كوبري تقاطع طريق ريجوا من الكم 189+540 إلى الكم 189+680
Owner: الهيئة العامة للطرق والكباري
Consultant: مكتب محرم باخوم - سيسترا
Number of Specimens: 21 **Type:** Deformed bars
Delivered by: Client on 11/08/2022

(a) Tension Test

Specimen Number		19	20	21
Code		EGS		
Nominal Diameter (d_n - mm)		32	32	32
Weight of Specimen (W - g)		3379	3409	3520
Length of Specimen (L - mm)		538	551	564
Weight per Unit Length	Actual (kg/m')	6.281	6.187	6.241
	Deviation from nominal (%)	-0.467	-1.953	-1.094
Gauge Length (L_o - mm)		160	160	160
Nominal Area (A_n - mm ²)		804.25	804.25	804.25
Yield Load (P_y - ton)		43.00	45.00	45.20
Maximum Load (P_{max} - ton)		59.00	59.60	59.00
Final Length (L_i - mm)		192	194	190
Yield Stress (R_{eH} - N/mm ²)		534.6	559.5	562.0
Tensile Strength (R_m - N/mm ²)		733.6	741.0	733.6
R_m / R_{eH}		1.37	1.32	1.31
Elongation after Breaking (A_5 - %)		20.0	21.2	18.7

(b) Cold Bend Test

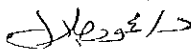
Number of specimens passed the test (ALL)

Number of specimens failed the test (NON)

*Tests were carried out according to ES 262-2/2015 "Steel for the Reinforcement of Concrete".

*All information was taken from the client letter (on his sole responsibility) or from the delivered specimens.

Prepared by
Eng. Karim Mohsen

Revised by




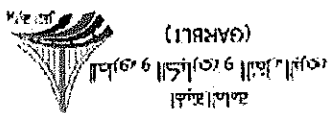
7/7



CROSS-HOLE ULTRASONIC MONITOR (CHUM)

HIGH-SPEED RAIL BRIDGES (3RD SECTOR FROM NILE WEST TO

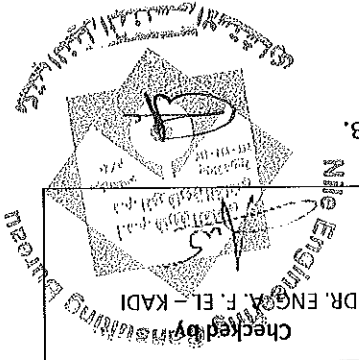
ALAMEIN), REGWA BRIDGE



Report on (2) Concrete Element(s)

Rev	0	Date	05-OCT-2022
Status	Final	Editor	SHERIF SALAH, BSc
Checked by	DR. ENG. A. F. EL - KADI		

This report provides the factual results of the CHUM performed by NECB.



NILE ENGINEERING CONSULTING BUREAU (MISR)
PRO.DR.ING./ FAROUK.I.K.EL KADI
DR.ING. / ANWAR FAROUK ELKADI

EXPERT HOUSE OF ENGINEERING CONSULTANTS

05 Dr. Abdel Hameed Lotfy Street

P.O. Box 11371

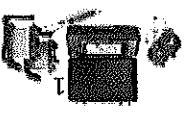
Nasr City-Cairo-Egypt

Tel : +2-02-22877600

Fax : +2-02-22700553

E-mail : anwarfelkadi@gmail.com

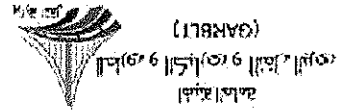
Internet: www.necb-misr.net





CROSS-HOLE ULTRASONIC MONITOR (CHUM)

HIGH-SPEED RAIL BRIDGES (3RD SECTOR FROM NILE WEST TO ALAMEIN), REGWA BRIDGE



Report on (2) Concrete Element(s)

Rev	0	Date	05-OCT-2022
Status	Final	Editor	SHERIF SALAH, BSc
Checked by DR. ENG. A. F. EL - KADI			

This report provides the factual results of the CHUM performed by NECB.

NILE ENGINEERING CONSULTING BUREAU (MISR)

PRO.DR.ING. / FAROUK.I.K.EL KADI

DR.ING. / ANWAR FAROUK ELKADI

EXPERT HOUSE OF ENGINEERING CONSULTANTS

05 Dr. Abdel Hameed Lotfy Street

Po. Box 11371

Nasr City-Cairo-Egypt

Tel : +2-02-22877600

Fax : +2-02-22700553

E-mail : anwarfelkadi@gmail.com

Internet: www.necb-misr.net



Geotechnical QC&QA Department
 Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".
 To : General Nile for Road& Bridges".
 NECB Ref. : CHUM182/1101/022.
 Status : Formal Final_Rev 0, Oct 05th, 2022
 Checked by : A. F. El-Kadi, PhD.

1) Introduction

1.1 Upon the request of "General Nile for Road& Bridges" Cross Hole Ultra Sonic Monitoring (CHUM) following the Project Specifications executed to check the concrete homogeneous for (2) concrete element(s).
 1.2 The testing activities can be summarized as follows:

Project /Location	High-Speed Rail Bridges (3 rd sector from Nile West to Alamein), Regwa Bridge
Date /Time	05-Oct-2022
Witnessed	Project Engineer, and Client Engineer
NECB Staff	Amr Salah, BSc. Mohamed Ali, Geotec.
No. of tests/Type	2/ Concrete Elements / Bored/ Cast-in situ
CHUM Pattern	4 tubes, 6 logs (except if mentioned in item 3 below)
Tested Element (s)	As stated in item 3 below and annex 1
Information	

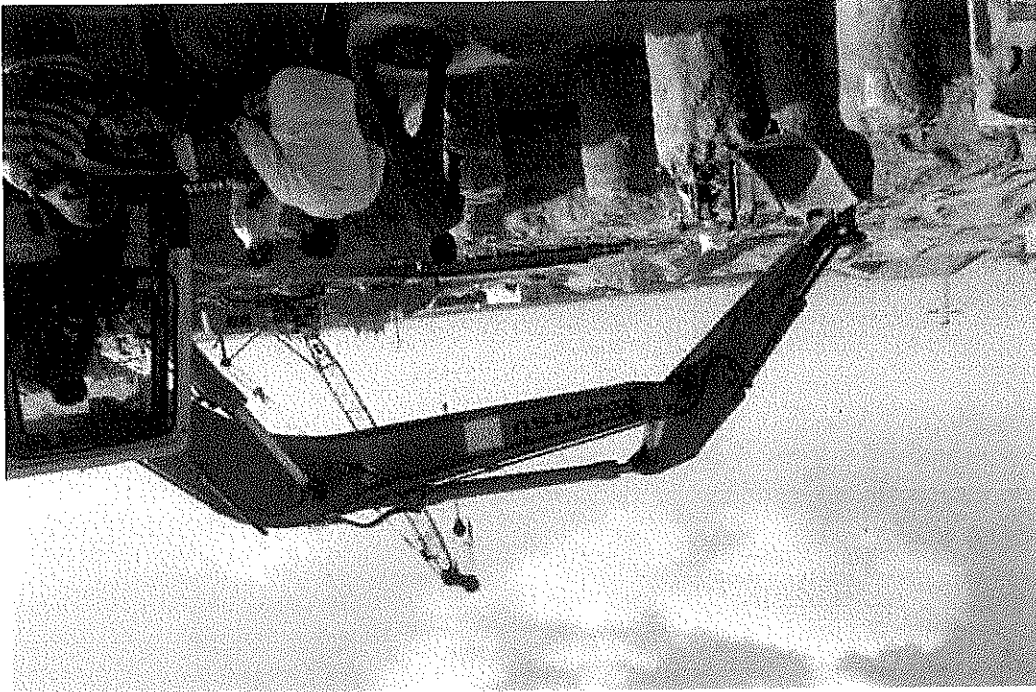


Fig. 1 CHUM in Progress

Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM182/1101/022.

Status : Formal Final_ Rev 0, Oct 05th, 2022

Checked by : A. F. El-Kadi, PhD.



Contents

1) Introduction.....	3
2) Measuring Technique	4
3) Tested Element(s).....	4
4) 3-D Tomography output (Optional).....	4
5) Conclusion	4
General Tips.....	5
ANNEXES.....	6
CHUM TEST RESULTS.....	7
3-D TOMOGRAPHY	8
CHUM Method Statement.....	9

Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM182/1101/022.

Status : Formal Final_Rev 0, Oct 05th, 2022

Checked by : A. F. El-Kadi, PhD.



2) The Measuring Technique

2.1 The measuring and the interpretation of the test following ASTM specifications (D6760-17), and AFNOR NF P 94-160-1 (2000) are as shown in the attachments.

2.2 The test equipment (CHUM) manufactured by Piletest UK. The related data are in the attachments.



3) Tested Element(s)

3.1 The tested element (s) data, CHUM input and test output attached in annex 1.

3.2 (6) CHUM logs are available for the tested and reported element(s) arranged as shown in fig.2.

3.3 The tested element(s) have the following dimension:

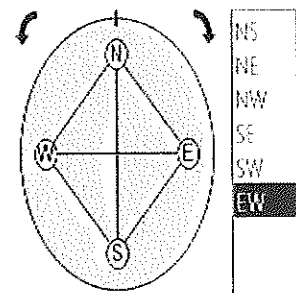


Fig 2 Element with 4 tubes (6 logs)

S	Pile ID	Type	Dimensions	Available CHUM tubes	Remark
1	P2-P13	Concrete pile	D1.2m / L40.0m	4 /4	-
2	P3-P29	Concrete pile	D1.2m / L40.0m	4 /4	-

4) 3-D Tomography output (Optional)

4.1 N/A.

5) Conclusion

Interpretation based on comparing both times interval vs. energy curves, and review wave velocities through test for the tested and reported element, in addition to Tomography results. The test results can summarized as follows:



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road & Bridges".

NECB Ref. : CHUM182/1101/022.

Status : Formal Final_Rev 0, Oct 05th, 2022

Checked by : A. F. El-Kadi, PhD.



5.1 Tested and reported pile # (P3-29) is free from any significant defects, has a homogeneous and good quality concrete, and **Integrity Accepted (up to the end of available CHUM pipes)**.

5.2 For pile P2-13: CHUM detects high anomalies (Flaw) starting from depth 20.8m to 21.6m. The effective areas are varying from 84 to 88%.

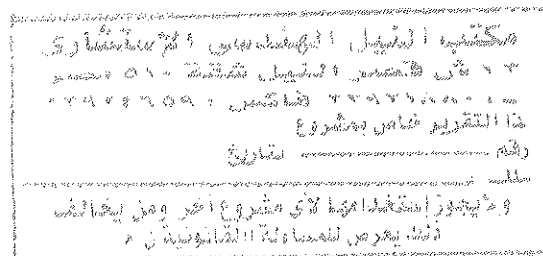
5.3 CHUM results for all tested piles, in addition to the tomography results attached in Annex 1&2.

General Tips

- 1) Low wave velocities near the CHUM tubes zones mean non-uniform tube spacing (green color in 3D Tomography). That will not affect the test results.
- 2) The effective area in 3D Tomography is related to the concrete quality, not the element cross-section.
- 3) Preparing CHUM pipes for test is out of NECB's scope of work.

Cairo, 5 Oct 2022

NILE ENGINEERING CONSULTING BUREAU



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM182/1101/022.

Status : Formal Final_Rev 0, Oct 05th, 2022

Checked by : A. F. El-Kadi, PhD.



ANNEXES



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM182/1101/022.

Status : Formal Final_Rev 0, Oct 05th, 2022

Checked by : A. F. El-Kadi, PhD.



CHUM TEST RESULTS

Subject : CHUM Final Report _ High Speed Rail _3rd Sector.

To : General Nile for Road& Bridges.

NECB Ref.: CHUM182/1101/022.

CHUM Annex



CHUM Summary

S	Pile ID	Profile	Measured length of pipes (m)	Apparent Wave Speed [m/s]	Remarks
1	P2P13	12	39.44m	4520	CHUM detects a relative energy reduction from depth 20.8m to 21.6m. The effective area varies between 84 %to 88%.
		23	38.15m	4520	
		34	38.94m	4590	
		14	38.89m	4550	
		13	38.79m	4630	
		24	39.19m	4430	
2	P3P29	12	31.98m	4470	Sound concrete without any significate anomaly. FAT is perfect during test.
		23	37.74m	4440	
		34	37.73m	4510	
		14	31.98m	4360	
		13	32.43m	4560	
		24	38.58m	4530	

Subject : CHUM Final Report_ High Speed Rail _3rd Sector.

To : General Nile for Road& Bridges.

NECB Ref.: CHUM182/1101/022.

CHUM Annex



P2P13

10/5/2022

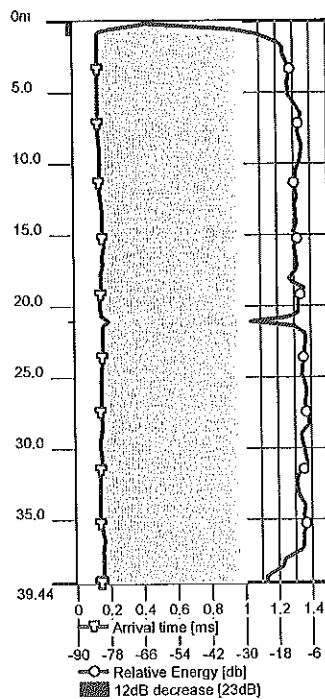
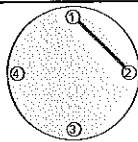
Diameter: 1.20m

12

39.44m

Distance: 0.55m

Filter: 1

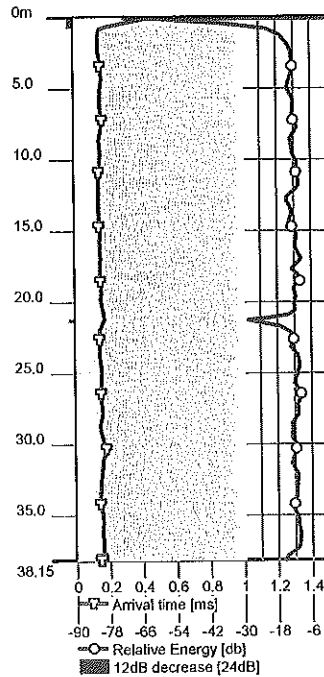
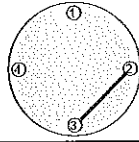


23

38.15m

Distance: 0.55m

Filter: 1

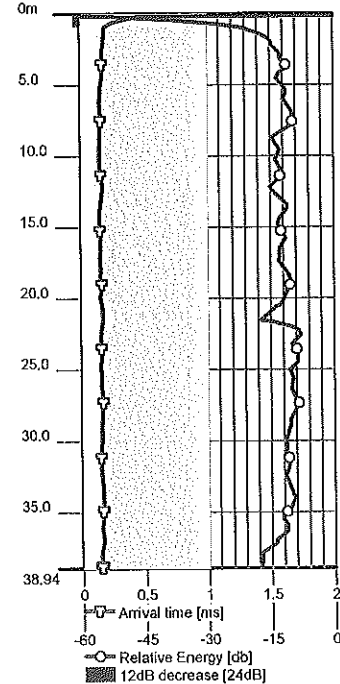
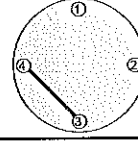


34

38.94m

Distance: 0.55m

Filter: 1



Subject : CHUM Final Report _ High Speed Rail _3rd Sector.
 To : General Nile for Road& Bridges.
 NECB Ref.: CHUM182/1101/022.
 CHUM Annex



P2P13

10/5/2022

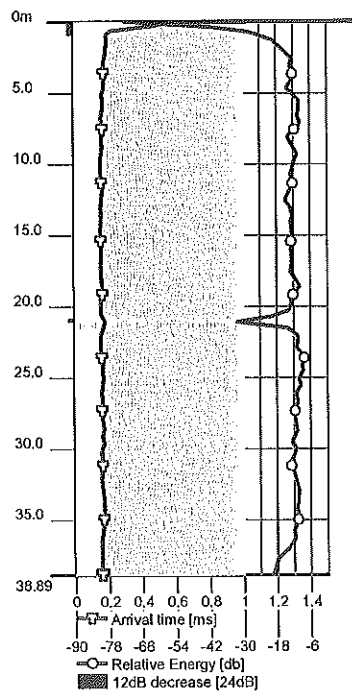
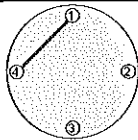
Diameter: 1.20m

14

38.89m

Distance: 0.55m

Filter: 1

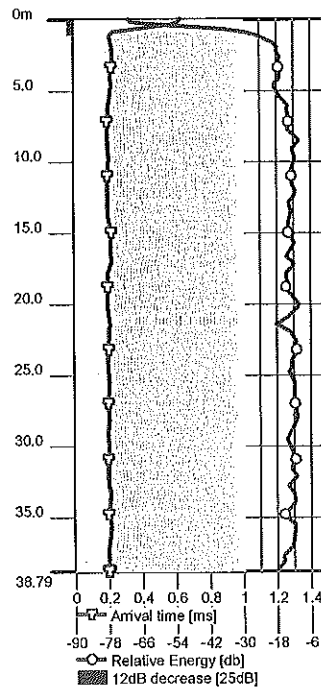
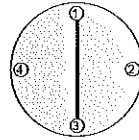


13

38.79m

Distance: 0.85m

Filter: 1

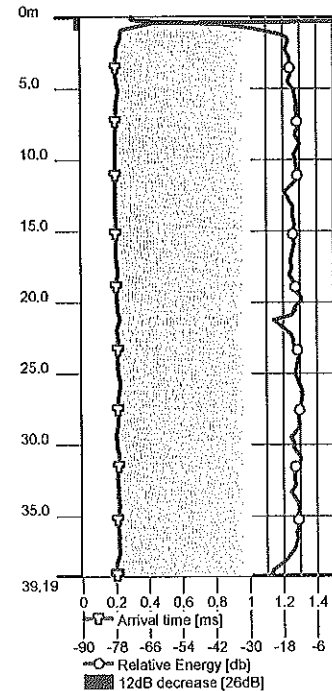
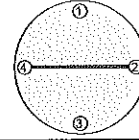


24

39.19m

Distance: 0.85m

Filter: 1



Subject : CHUM Final Report_ High Speed Rail _3rd Sector.

To : General Nile for Road& Bridges.

NECB Ref.: CHUM182/1101/022.

CHUM Annex



P3P29

10/5/2022

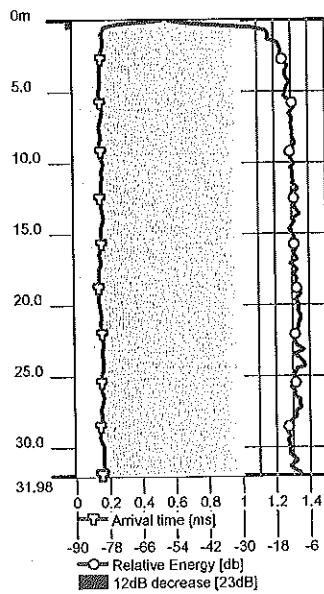
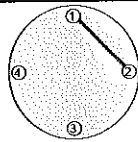
Diameter: 1.20m

12

31.98m

Distance: 0.55m

Filter: 1

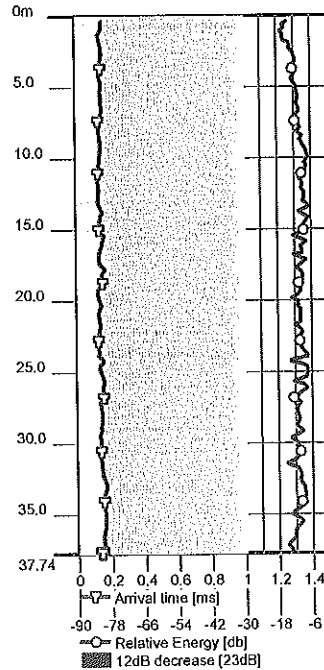
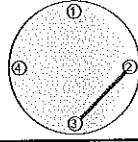


23

37.74m

Distance: 0.55m

Filter: 1

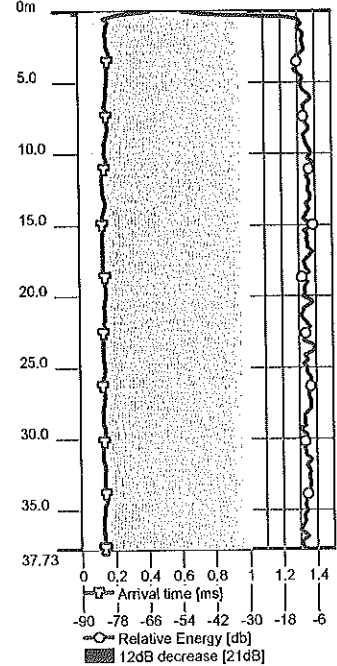
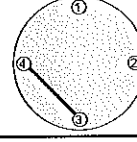


34

37.73m

Distance: 0.55m

Filter: 1



Subject : CHUM Final Report_ High Speed Rail _3rd Sector.

To : General Nile for Road& Bridges.

NECB Ref.: CHUM182/1101/022.

CHUM Annex

**P3P29**

10/5/2022

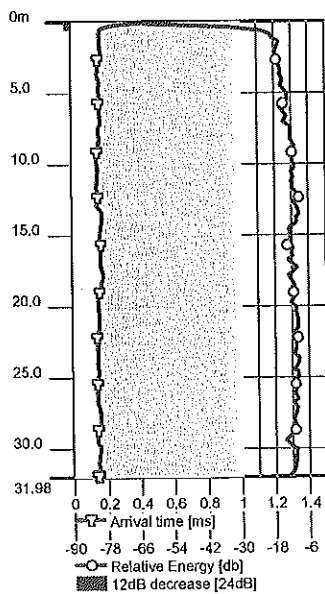
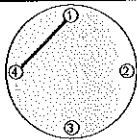
Diameter: 1.20m

14

31.98m

Distance: 0.55m

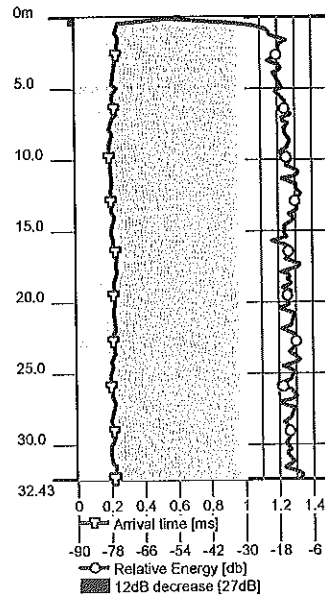
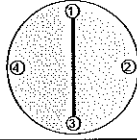
Filter: 2

**13**

32.43m

Distance: 0.85m

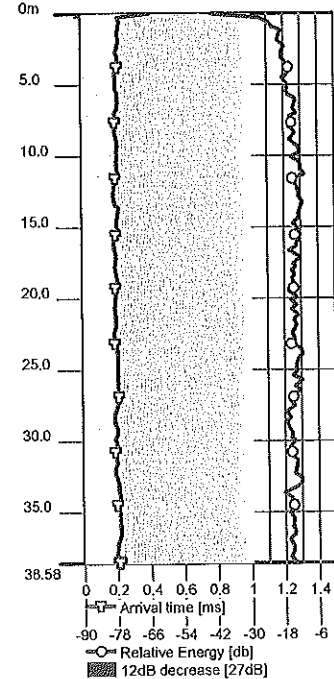
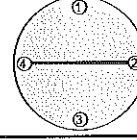
Filter: 2

**24**

38.58m

Distance: 0.85m

Filter: 2



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3rd Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM182/1101/022.

Status : Formal Final_ Rev 0, Oct 05th, 2022

Checked by : A. F. El-Kadi, PhD.



3D TOMOGRAPHY

N/A



Geotechnical QC&QA Department.

Subject : CHUM Final Report_ High Speed Rail Bridges, 3^d Sector".

To : General Nile for Road& Bridges".

NECB Ref. : CHUM182/1101/022.

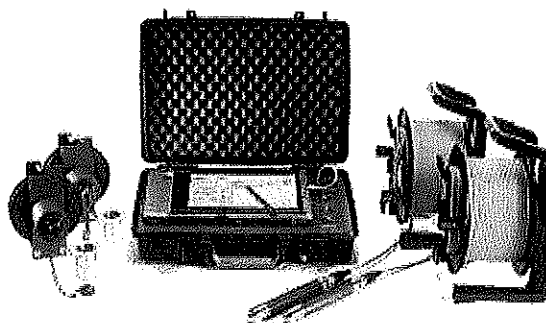
Status : Formal Final_Rev 0, Oct 05th, 2022

Checked by : A. F. El-Kadi, PhD.



CHUM Method Statement





CROSS-HOLE ULTRA SONIC MONITOR

GENERIC METHOD STATEMENT

NILE ENGINEERING CONSULTING BUREAU (MISR)

PRO.DR.ING. / FAROUK.I.K.EL KADI

DR.ING. / ANWAR FAROUK EL KADI

EXPERT HOUSE OF ENGINEERING CONSULTANTS

05 Dr. Abdel Hameed Lotfy Street

Po. Box 11371

Nasr City-Cairo-Egypt

Tel : +2-02-22877600

Fax : +2-02-22700553

E-mail : anwarfelkadi@gmail.com

Internet: www.necb-misr.net

Table of Content

Item	Description	Page
1.	General	03
2.	Access	03
3.	Data Collection	04
4.	Testing Equipment and Tools	04
5.	Data Processing Techniques	05
6.	Interpretation of results	05
7.	Equipment calibration	05

1) General

- Cross Hole Ultra Sonic Monitor (CHUM) test is for checking the integrity of newly placed drilled shafts, seal footings, and slurry or diaphragm walls. CHUM test relies on the propagation of ultrasonic waves between two or more access tubes to measure the velocity and signal strength of the propagated waves. The testing can be performed on any concrete foundation provided two or more access tubes or core holes capable of holding water are present in the foundation. CHUM can also be used to check the integrity of underwater concrete piers and foundations by strapping access tubes to the sides. Cross hole Tomography can be performed to image critical anomalies found in CHUM tests.
- CHUM tests are typically performed on concrete, particularly concrete drilled shafts. Other materials, which support the transmission of ultrasonic waves, can be tested, such as slurry, rock, grout, water-saturated media, and cemented radioactive wastes.



Standards for CHUM method include ASTM D6760-16 for integrity testing of concrete deep foundations and ACI 228.2R for NDE applications, and FLH 521.830 for determining pulse velocity through concrete in drilled shafts.

2) Access

- Access tubes must be installed before the construction of the drilled shaft for quality assurance purposes unless core holes are to be drilled in a forensic case.
- PVC or black steel tubes (U.S. schedule 40) are typically used. The tubes are 1.5 (steel tubes only) to 2 inches (38 to 50 mm) in diameter and are typically tied to the rebar cage to ensure close to vertical positions of the tubes.
- The tubes must extend at least 30cm above the top of the shaft to

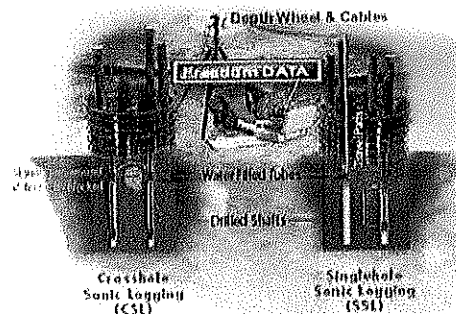


fig.2 System Installation

compensate for the water displaced by the source, receiver, and cables and to allow for easy access. Tubes must be bonded to the concrete for good test results. To minimize de-bonding of tubes, water should be added immediately before or after concrete placement and the tubes should not be mechanically disturbed.

- At least two tubes are needed to perform CHUM test. For good coverage of the test shaft, the following number of tubes be installed is recommended:

Shaft Diameter	Recommended Number Of Tubes	Tube Spacing
D < 2.5 ft (0.75m)	2 minimum	180 Degree
2.5 < D < 3.5 ft (1.0 m)	3 minimum	120 Degrees
3.5 < D < 5.0 ft (1.5 m)	4 minimum	90 Degrees
5.0 < D < 8.0 ft (2.5 m)	6 minimum	60 Degrees
8.0 < D <	8 minimum	45 Degrees

- The concrete in the shaft should normally be allowed at least 1-2 days to cure to hardened concrete before testing. If "PVC" tubes are used, testing should be done within 10 days after the placement of concrete due to possible tube-concrete de-bonding.

It is very important to fill tubes with clean Water immediately before or within one hour after concrete placement. This action inhibits de-bonding of concrete from the tube. Cap or Seal tube tops to keep out debris.

Also, all CHUM tubes should be washed using pure water and refilled using pure water at least 24 hr before starting CHUM test.

CHUM pipes should be leveled before start the test activities.

Tube Grouting

- After CHUM testing is completed and the engineer has accepted the shaft, remove all water from access tubes and any other drilled holes. Then fill tubes and holes completely with approved grout mix.

3) Data Collection

- In a CHUM test, the source is lowered to the bottom of one of the tubes, and

the receiver is lowered to the bottom of another tube. The source and receiver

are pulled simultaneously to allow the horizontal ultrasonic pulse velocity to be measured. A depth wheel controls the resolution of the collected data.

- Typically, the source is excited every 0.2 ft (6 cm) vertically and a measurement is taken. The source and receiver are pulled to the top of each shaft, thus giving a complete assessment of the concrete quality between the two tubes. CHUM tests are typically performed between all the perimeter tubes to check the perimeter of the shaft. Additional opposing diagonal CHUM tests are also performed to check the integrity of the inner core of the shaft. If there are more than 4 tubes and an anomaly is identified, CHUM tests may be performed of sub diagonal tube pairs to further define an anomaly. A pair of tubes can be logged and the results displayed in less than approximately 5 minutes. The Freedom data PC with the Cross hole Ultrasonic monitor system (CHUM) is used for the collection and analysis of CHUM data.

4) Testing Equipment and Tools

- Testing equipment fig. 3 consists of:
 - o Heavy Duty Computer;
 - o Two Hydro-phones;
 - o Depth Controller wheel;and
 - o Two Cables wheels;

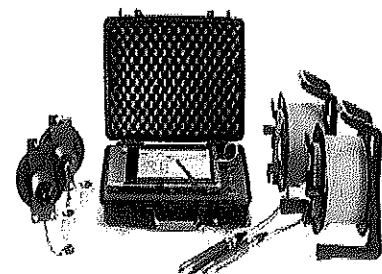


Fig.3 CHUM Equipment

5) Data Processing Techniques

- The collected data from CHUM measurements between two tubes at all depths are saved in one file. The file is scanned to determine first wave arrival times and energy levels at all depths. A CHUM log shows either the arrival time (or velocity) and signals energy plots vs. depth.
- CHUM system can easily scan any concrete element with enough tubes pairs as mentioned in table 1 above. The quality of the results is affected by the quality bonding between both concrete and steel tubes.

6) Interpretation of results

- In uniform, good quality concrete, the travel time between vertical equidistant tubes will be relatively constant and correspond to reasonable concrete pulse velocity from the bottom to the top of the foundation (see fig. 4).

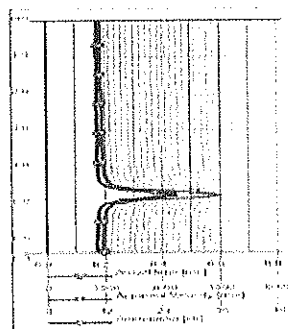


Fig. 4 CHUM interface (Arrival Time along pile length, and Energy,

- CHUM test will also produce records with good signal amplitude and energy in good quality concrete. Longer travel times and lower amplitude/energy signals indicate the presence of irregularities such as poor quality concrete, void, honeycomb, and soil

intrusions. In some severe defects, the signal may be completely lost.

- The variance in the arrival time between CHUM logs is due to the variance of tube spacing.



7) 3D Tomography (optional - fig. 5)

- 3D Tomography used for evaluate the concrete quality using wave velocity variation along pile length as follows:
 - Sound wave velocity over 4200m/s excellent concrete;
 - Sound wave velocity over 3657m/s very good concrete;
 - Sound wave velocity 3048 to 3657m/s accept concrete and;
 - Sound wave velocity less than 3048 m/s questionable concrete.
- The real concrete low quality or shaft defects be clear when receiving same defected zone on both of traveling time - energy curve and 3D tomography. otherwise maybe tube debonding or local uneffective low material quality.

8) Equipment calibration

- Calibration certificate for CHUM will attached in the final report.



Developing, manufacturing and marketing of deep
Foundation quality assurance NDT equipment since 1996

ORIGINAL

CERTIFICATE OF IN-HOUSE CALIBRATION

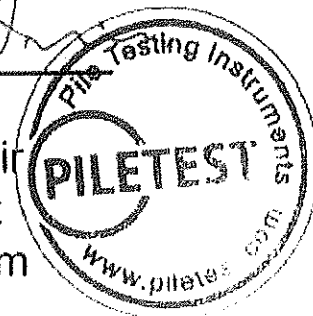
15222-2

Calibration date	2021-05-11
Valid till	2024-05-10

#	item	S/N	Results
1	CHUM System	1433	Pass
2	CHUM transducers	T 1451, T1700	Pass

I hereby certify that the above CHUM system was successfully calibrated according to all the requirements of ASTM standard D6760-16 using in-house method CALCH03A

Erez I. Amir
President
Piletest.com



PILETEST.COM

20-22 Wenlock Road | London N 7GU | **United Kingdom**
P: +44 870 752 4081 | F: +44 870 23 738 | Sales@piletest.com | www.piletest.com



Developing, manufacturing and marketing of deep
Foundation quality assurance NDT equipment since 1996

IN-HOUSE Calibration Report

2021-05-11

UUC	S/N	
CHUM System	1433	
Temperature	20	°C

Results

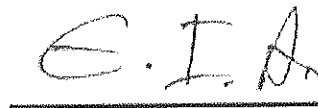
Measured wave speed	340.0	m/s
Expected wave speed	343.3	m/s
Intercept	-3.6	us
R2	0.9999	
Results	Pass	

Measurements

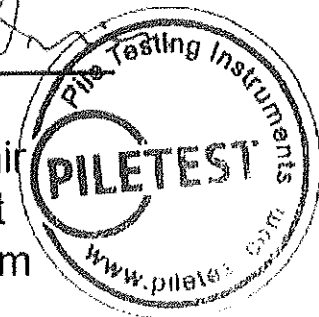
FAT (sec)	Distance (m)
0.0001460	0.051
0.0003020	0.102
0.0005740	0.197
0.0008700	0.301
0.00820	0.401
0.0014720	0.501
0.0017600	0.6

Summary

I hereby certify that the above CHUM system was successfully calibrated according to all the requirements of ASTM standard D6760-16 using in-house method CALCH03A



Erez I. Amir
President
Piletest.com



PILETEST.COM

20-22 Wenlock Road | London N 7GU | **United Kingdom**
P: +44 870 752 4081 | F: +44 870 23 738 | Sales@piletest.com | www.piletest.com

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			2/5 / 2023																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : Insulating For Footing Layer (1)		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Work Activity	Insulating For Footing P3 Layer (2)
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P3

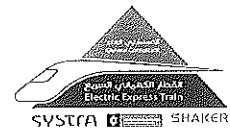
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1				
2				
3				
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Mohammed Gardouni			A

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			2/5 / 2023																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : Insulating For Footing Layer (1)		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Work Activity	Insulating For Footing P2 Layer (2)
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P2

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1				
2				
3				
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employee Representative	Mohammed Gad/ouh			A

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			31/4 / 2023																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity : Insulating For Footing Layer (1)		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Work Activity	Insulating For Footing P3 Layer (1)
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1				
2				
3				
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Mohammed Gardoun			A

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			31/4 / 2023																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : Insulating For Footing Layer (1)		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Work Activity	Insulating For Footing P2 Layer (1)
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P2

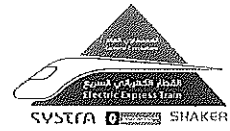
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1				
2				
3				
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Moham med Gardawh			A

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			17/6/2023								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : INSULATING FOR FOOTING P1 LAYER 1		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

WORK Activity	INSULATING FOR FOOTING P1 LAYER 1
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P1

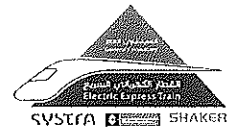
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1				
2				
3				
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Mohammed Gardoun			A

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			24/6/2023																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity : INSULATING FOR FOOTING P1 LAYER 2		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
WORK Activity	INSULATING FOR FOOTING P1 LAYER 2			
Location	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P1			
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1				
2				
3				
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Mohamed Gardah			A

MATERIAL APPROVAL REQUEST



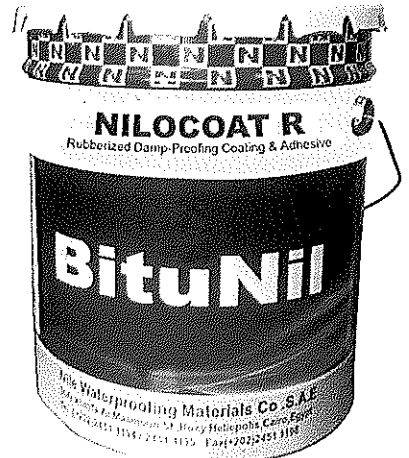
Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			25/3/2023																	
Contractor Reference																				
Received by ER		محرم باخوم	MAR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity IT Will be used to insulate footing		
CODE - 3	Sub Element of Activity		

Description of Materials	NILOCOAT R is a rubberized bitumen damp-proofing coating /adhesive, specially formulated to provide high resistance to the passage of water vapor, and is highly resistant to re-emulsification when in long term contact with water .		
Location to be Used	REGWA		
Sample only	Yes / No	Materials Type	Insulation Materials
Supplier Name		Data Sheet provided	Yes attached / No
Reference in BoQ		Specification	Clause
Prequalification reference		Test Samples Results	
Reference Photos	Yes attached / No	Other	
Comments by:	Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC -R
Contractor	Ahmed Adel			A
QA/QC *				A
GARB**				
Employers Representative	Mohammed Gardony		25/3/2023	A

* Designer



NILOCOAT R

Rubberized Damp-Proofing Coating & Adhesive

Properties	Test Method	NILOCOAT R
Composition		Rubberized bitumen, water, emulsifying agents
Bitumen modifier	ASTM D 2939	SBR
Specific gravity	ASTM D 2939	1.05 ±0.02
Flammability		No tendency to flash or ignite
Drying time (firm set)		Less than 24 hrs at 80% RH [+5%] @ 27°C [±2°C]
Heat resistance, at 100°C		No flow, sag or blistering
Flexibility at 0°C		No cracking or flaking
Residue by evaporation, %		60 [nominal]
Water vapor transmission (g/m2/24Hrs)		0.8
Water resistance	ASTM D 2939	No blistering or re-emulsification in water
Shelf Life	-	12 Month (in factory sealed container, stored in a shaded ventilated area)

The information given in this Technical Data Sheet is given to the best of our knowledge based on laboratory test and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the product itself.

Distributor:



Nile Waterproofing Material Co. S.A.E

شركة النيل للمواد العازلة ش.م.م

H.Q: 50, Al Khalifa Al Maamoun St. Roxy - Heliopolis, Cairo - Egypt, Tel : (202) 24511194 - 24511195 Fax: (202) 24511198.

MATERIAL APPROVAL REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			25/3/2023																	
Contractor Reference																				
Received by ER		محرم باخوم	MAR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity IT Will be used to inject the tubes that were used in the (ultra Sonic) experiment		
CODE-3	Sub Element of Activity		

Description of Materials	Sika Intraplast Z (Expanding Grout Admixture) (injection material)		
Location to be Used	REGWA (FOOTING P1)		
Sample only	Yes / No	Materials Type	Expanding Grout Admixture (injection material)
Supplier Name		Data Sheet provided	Yes attached / No
Reference in BoQ		Specification	Clause
Prequalification reference		Test Samples Results	
Reference Photos	Yes attached / No	Other	
Comments by:		Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Aakel			A
QA/QC *				A
GARB**				
Employers Representative	Mohammed Gardony		25/3/2023	A

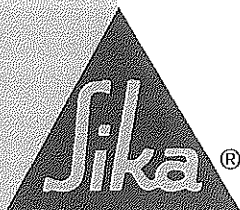
* Designer

** Alignment/Bridges: Culvert only

Intraplast® -Z

Expanding Grout Admixture

Product Description	An expanding grout admixtures which introduce micro bubbles into the cement mix. Wet volume expansion and increased fluidity, without segregation, are the enhanced performance characteristics when using Intraplast® -Z.
Uses	Intraplast® -Z is used to increase cohesion in cement grouts (addition of sand is possible). Intraplast® -Z develop hydrogen gas. In general Intraplast® -Z can be used for grouting of: ■ Pre-stressed cable ducts. ■ Rock and soil anchoring. ■ Bearing plates. ■ Pre-placed aggregates grouting. ■ Tunnel linings.
Advantages	Intraplast® -Z provide the following beneficial properties: ■ Increased frost resistance. ■ Improved fluidity. ■ Increased cohesion. ■ Volume expansion in the wet state. ■ Slight retardation of set (Intracrete only).
Approvals / Standards	■ Intraplast® -Z has been tested as per SCAQMD Rule 1168' Result VOC Content 0 g/L
Technical Data	
Colour	Grey
Density	1.0 ± 0.1 kg/l
Storage Conditions	Dry
Shelf Life	12 months
Packaging	160 x 1 kg or 20 x 1 kg
Application	
Dosage	2% by weight of cement. (1 kg sachet per 50 kg cement).
Dispensing	Add directly to the cement mix water, in the mixer. Sand may be added as required.
Important Recommendations	For pre-stressed concrete work, where mechanical batching is carried out, a mixing time of 4 minutes with a W/C ratio of 0.36 - 0.40 has been found to give the best results. The most effective mixing sequence has proven to be; water, cement and finally the admixture. Cements containing fly ash are unsuitable.



Typical Results

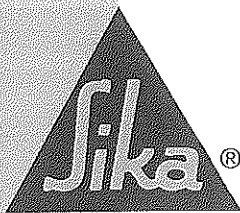
		Control	Sample 1	Sample 2
Mix Design	Cement	1	1	1
	Water	0.50	0.45	0.45
Intraplast® Z per 50 kg OPC		-	500 gm	1000 gm
Flow Test – JA Cone 3 mins after mixing (3 mins $\pm$ 0.3 sec)		3.09 Sec.	3.18 Sec.	3.31 Sec.
Density (kg/m ³)		1.840	1.850	1.885
Air Content (%)		8.2	5.8	6.4
Expansion (%)	3 days	-	-	0.470
	7 days	-	-	0.738
Compressive Strength (N/mm ²)	1 day	13.4	11.8	13.7
	7 days	26.0	29.2	30.6
	28 days	41.7	43.2	47.5

Safety Instructions

Ecology	Do not dispose of into water or soil but according to local regulations.
Transport	Non-hazardous.
Safety Precautions	Contact with eyes, skin may cause irritation. Wear gloves and goggles.
Toxicity	Non-Toxic under relevant health and safety codes.

Legal notes

■ The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



Sika Egypt for Construction Chemicals

El Abour City
1st Industrial zone (A)
Section # 10 Block 13035,
Egypt

Tel :+202-
46100714/15/16/17/18
Fax :+202- 46100759
Mob :+2012- 3908822/55
www.sika.com.eg



MATERIAL APPROVAL REQUEST



Contractor Company			Designer Company																	
	Name	Sign	Date	Time																
Issued by Contractor			25/3/2023																	
Contractor Reference																				
Received by ER		محرم باخوم	MAR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity IT Will be used to insulate footing		
CODE - 3	Sub Element of Activity		

Description of Materials	NILOCOAT R is a rubberized bitumen damp-proofing coating /adhesive, specially formulated to provide high resistance to the passage of water vapor, and is highly resistant to re-emulsification when in long term contact with water .		
Location to be Used	REGWA		
Sample only	Yes / No	Materials Type	Insulation Materials
Supplier Name		Data Sheet provided	Yes attached / No
Reference in BoQ		Specification	Clause
Prequalification reference		Test Samples Results	
Reference Photos	Yes attached / No	Other	
Comments by:	Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC -R
Contractor	Ahmed Adel			A
QA/QC *				A
GARB**				
Employers Representative	Mohammed Gardoni		25/3/2023	A

* Designer

NILOCOAT R

Rubberized Damp-Proofing Coating & Adhesive

Properties	Test Method	NILOCOAT R
Composition		Rubberized bitumen, water, emulsifying agents
Bitumen modifier	ASTM D 2939	SBR
Specific gravity	ASTM D 2939	1.05 ±0.02
Flammability		No tendency to flash or ignite
Drying time (firm set)		Less than 24 hrs at 80% RH [+5%] @ 27°C [±2°C]
Heat resistance, at 100°C		No flow, sag or blistering
Flexibility at 0°C		No cracking or flaking
Residue by evaporation, %		60 [nominal]
Water vapor transmission (g/m2/24Hrs)		0.8
Water resistance	ASTM D 2939	No blistering or re-emulsification in water
Shelf Life	-	12 Month (in factory sealed container, stored in a shaded ventilated area)

The information given in this Technical Data Sheet is given to the best of our knowledge based on laboratory test and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the product itself.

Distributor:



Nile Waterproofing Material Co. S.A.E

شركة النيل للمواد العازلة ش.م.م

H.Q: 50, Al Khalifa Al Maamoun St. Roxy - Heliopolis, Cairo - Egypt, Tel : (202) 24511194 - 24511195 Fax: (202) 24511198.

REQUEST to POUR CONCRETE



Contractor Company				Designer Company							
Issued by Contractor	Name <i>Joseph</i>	Sign <i>[Signature]</i>	Date 27/8/2022	Time							
Received by ER			CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference											

CODE 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE 2	Work Activity		
CODE 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference				
Location of Pour				
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade:
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour:			Concrete Volume:	

Comments by:	Comments by:

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Joseph</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>[Signature]</i>	<i>[Signature]</i>		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	27/08/2022
Pile No.	non- working Test Pile	Structure	bridge	Pile Cutoff Level	—
pier	—	Ground Level	67.85	Pile Toe Level	29.96
Theoretical Pile Length from caisson level	39.25 m	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	37.89 m	Theoretical concrete Q	46.33 m ³	Temporary Casting Level	69.21
Act. Drilling Length	41 m	Act. concrete Q	50.5m ³	Steel Top Level	68.61
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	0.6

Pile Survey

Coordinates	EAST	North
Theoretical	585430.032	830472.607
Actual	585430.043	830472.625

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.06
Viscosity(Sec.)	30:70 Sec.	0:00	≤90 Sec.	37
Sand Content %	Less than 2%	N/A	Less than 2%	1.5

Geotechnical Log	
0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	27/08/2022	07:30	12:00	Cleaning	—	—	—
Install Cages	28/08/2022	13:00	14:44	pouring	27/08/2022	18:27	19:57

	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5
Slump	21.1	21.3	20.9	21.6	21.4
Temperature	30 c	29.5 c	29 c	29 c	28 c

	BAUER EGYPT	NILE COMPANY	OWNER / if Required
Signature			

GENERAL NOTES:
 1. All dimensions are in mm.
 2. Do not exceed the maximum allowable stress in steel or concrete.
 3. The concrete shall be of grade C40/50.
 4. The steel reinforcement shall be of grade S420MPa.
 5. The pile shall be cast in place.
 6. The pile shall be cast in place.
 7. The pile shall be cast in place.

All Levels should be reduced before construction in site

ABBREVIATION:
 T.O.A. = Top of Arch
 T.O.C. = Top of Column
 T.O.P. = Top of Pile Cap
 T.O.B. = Top of Bridge
 T.O.F. = Top of Footing
 N.G.L. = Normal Ground Level

DRAWING REFERENCES:
 REINFORCEMENT BAR SCHEDULE
 REINFORCEMENT BAR SCHEDULE
 REINFORCEMENT BAR SCHEDULE

NO.	DATE	REV.
1	10/10/2017	ISSUED FOR CONSTRUCTION

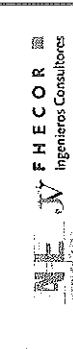
OWNER:
 ARAB REPUBLIC OF EGYPT
 MINISTRY OF TRANSPORT
 GENERAL AUTHORITY OF
 CANAL PROJECTS

NAME OF PROJECT:
 ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
 SECTION THREE (FROM WEST OF NAILE TO NAILE)

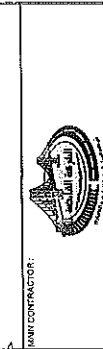
NAME OF OWNER CONSULTANT:



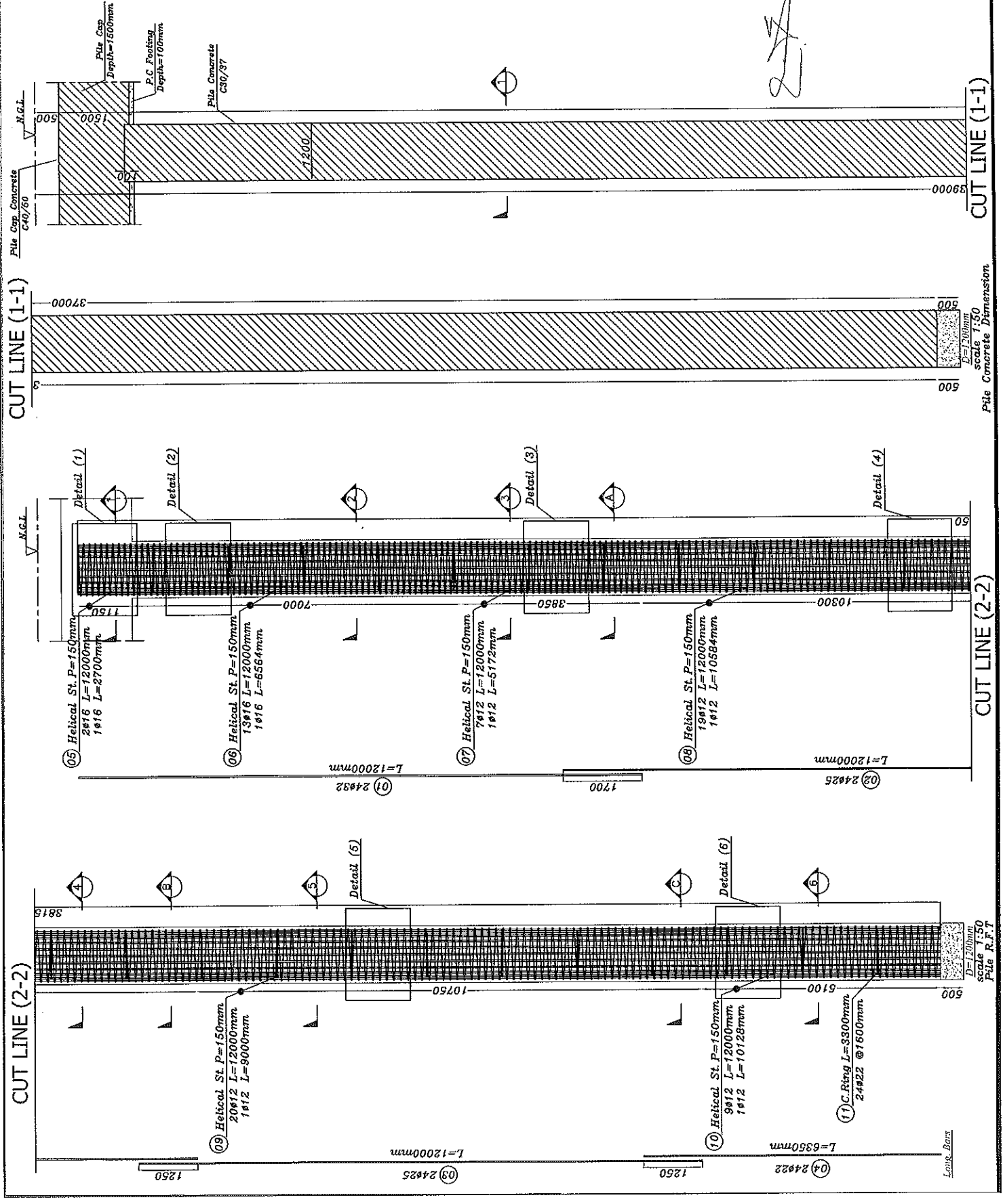
NAME OF CONTRACTOR CONSULTANT:



NAME OF CONTRACTOR:



DRAWING TITLE PILE REINFORCEMENT BAR SCHEDULE	
DATE 01/2022	SCALE AS SHOWN
DRAWING BY ENG. MOHAMED MOHAMED	CHECKED BY ENG. MOHAMED MOHAMED
DESIGNED BY ENG. MOHAMED MOHAMED	REVIEWED BY ENG. MOHAMED MOHAMED
APPROVED BY ENG. MOHAMED MOHAMED	



CUT LINE (1-1)

CUT LINE (2-2)

scale 1:50
Pile Concrete Dimension

scale 1:50
Pile R.F.T

[illegible]

ABBREVIATION :
 -T.O.A = Top of Age
 -T.O.C = Top of Cor
 -T.O.P = Top of Pill
 -T.O.B = Top of Bed
 -T.O.F = Top of F
 -N.S.L = Normal G

SAVING REFERENCES:

1.	DATE	ENG.	ISSUED FOR CONSTRUCTION
2.	DATE	ENG.	REVISION

السالك:

وزارة النقل
الهيئة العامة للنقل والبحري
والتجارة

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والبحري
والتجارة

OWNER:

شركة النقل
شركة النقل

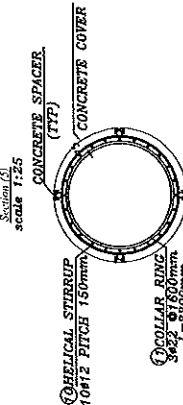
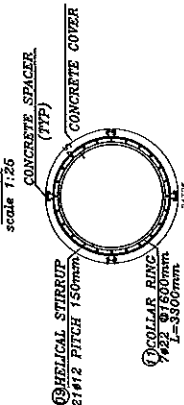
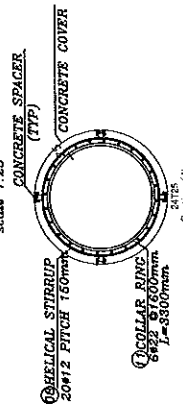
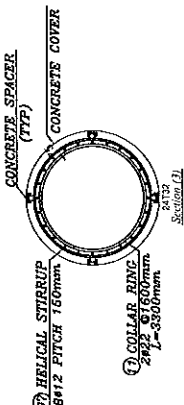
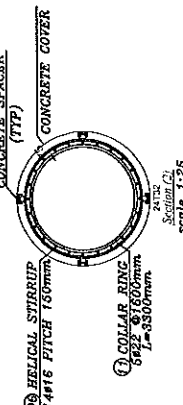
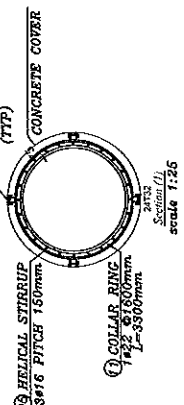
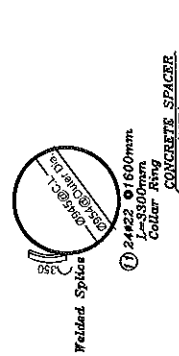
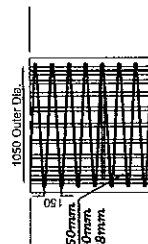
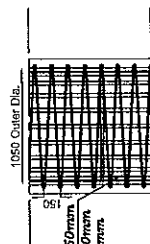
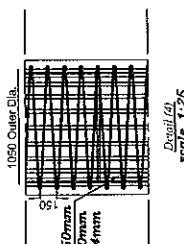
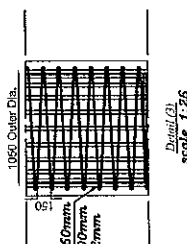
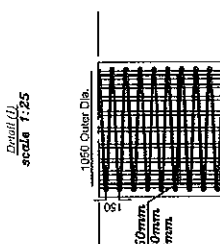
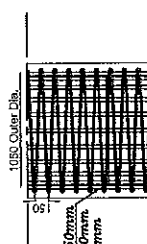
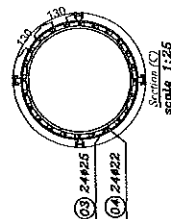
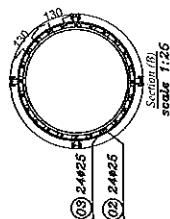
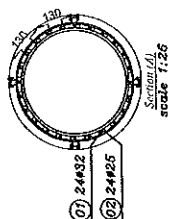
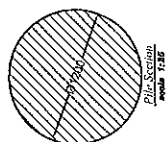
SECTION THREE (FROM WEST OF NILE TO ALAMING)
ELECTRICAL EXPRESS (HIGH SPEED RAIL)



FHEC
FHECOR
Ingenieros Consultores

DWG. TITLE:

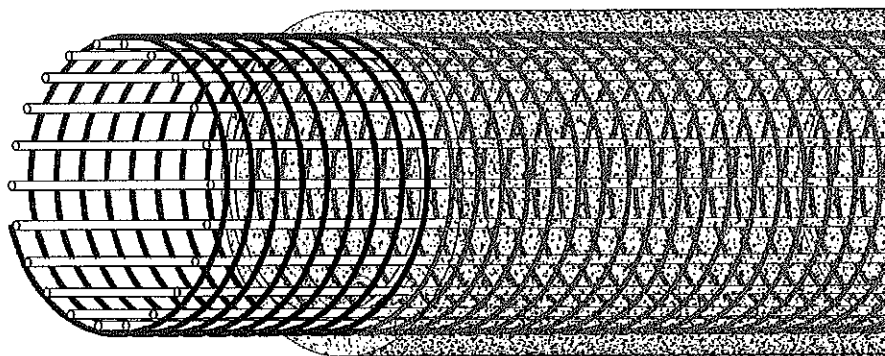
DRAWING BY: EBC, Abbotabad Highway EBC, Islamabad Station	DATE: 07-2022	SCALE: AS SHOWN
SUPERVISOR: (Mr. Muhammad Usman)	APPROVED BY: Eng. Asad Tahir	



Total	5651.29
-------	---------

ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 1600 TON ACCORDING TO GEOTECHNICAL REPORT.
LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.

3D View For Pile 1200mm



GENERAL NOTES:

- Do not measure light drawings. All dimensions should be taken at right angles.
- Pin Corolla (D30/37) = 41/41 Pin Corolla (D40/54)
- Corolla (D40/54) = 73/73
- Lip Sella Between Helical Setae (D40/54) = 64/64
- Lip Sella Between Helical Setae (D40/54) = 64/64
- Lip Sella Between Helical Setae (D40/54) = 48/48

All Levels should be revised before construction in site

ABBREVIATION :

- T.O.A = Top of Asphalt
-T.O.C = Top of Column
-T.O.P = Top of Pile Cap/Pile
-T.O.B = Top of Bearing
-T.O.F = Top of Frame
-N.G.L = Normal Ground Level

READING REFERENCES:

REGWA ROAD BRIDGE GENERAL NOTES ABUTMENT 1, DEFINITION	REGWA ROAD BRIDGE SUBSTRUCTURE PIERS P1, P2, P3, REINFORCEMENT (1)
RE-V001-QC-010601-NOT-E02	RE-V001-QC-21002-PIE-E02

1	10/2/2022	NAS	ISSUED FOR CONSTRUCTION
2	DATE	ENO.	REVISION

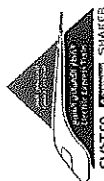
OWNER	العالم:


 وزارة النقل
 الجمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والكباري
 والقول البري
 ٢٠٢٠

NAME OF PROJECT:

ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF NILE TO ALAMON)

NAME OF OWNER CONSULTANT:



NAME OF CONTRACTOR CONSULTANT:

ARE
FHECOR
Ingenieros Consultores

WIN CONTRACTOR:



FILE LOAD TEST

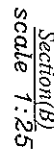
PILE REINFORCEMENT BARS SHOP DRAWING

NO. 102	DATE: 07-2022	SCALE:
DESIGNED BY: DR. LAMMOUD LAMMOUD	CHECKED BY: ENG. AMRUTAN KHAMRAT	AS SHOWN
DRAWING BY: ENG. MAMMOUD MAMMOUD	ENG. AMRUTAN KHAMRAT	REVISED BY:
ENG. MAMMOUD MAMMOUD	ENG. AMRUTAN KHAMRAT	ENG. MAMMOUD MAMMOUD
SUPERVISOR:	APPROVED BY:	
DR. LAMMOUD LAMMOUD	ENG. AMRUTAN KHAMRAT	

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	1	2	3	4	5	6	7
2	8	9	10	11	12	13	14
3	15	16	17	18	19	20	21
4	22	23	24	25	26	27	28
5	29	30	31				



2000



1

FHECOR
Ingenieros Consultores

DWG. TITLE: REVOLVA ROAD BRIDGE
DATE: 04-03-2004

PILE CAP REINFORCEMENT BARS SHOP DRAWING

DWG NO: _____ DATE _____ SCALE _____

MSRE-0001-SD-100-004411-ET0	07/2022	AS SM
DRAWING BY:	CHECKED BY:	REVISED

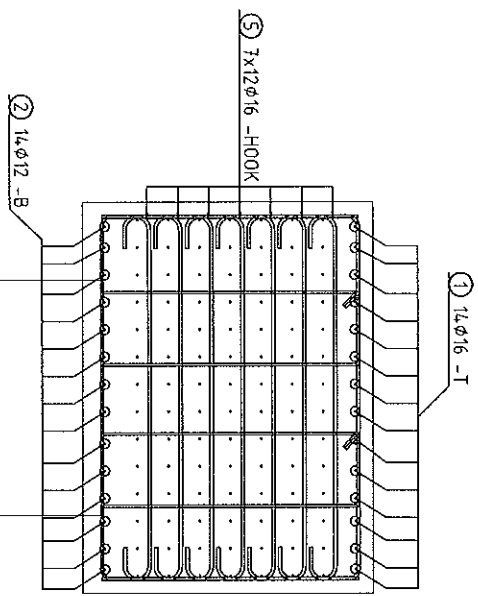
ENG. MOHAMMAD MOHAMMAD	ENG. ABDULLAH ALIYEV	ENG. SHAMIR
------------------------	----------------------	-------------

--	--	--	--

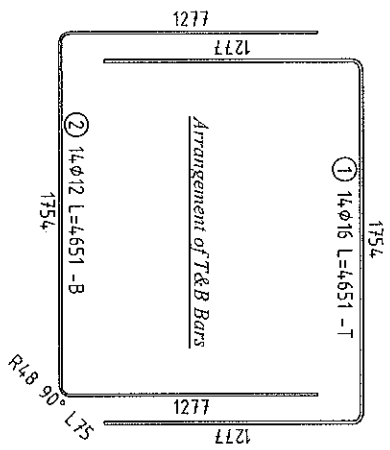
SUPERVISOR:	APPROVED BY:
DR. Murrell L. Williams	ERG. JAMES TORRES

[illegible]

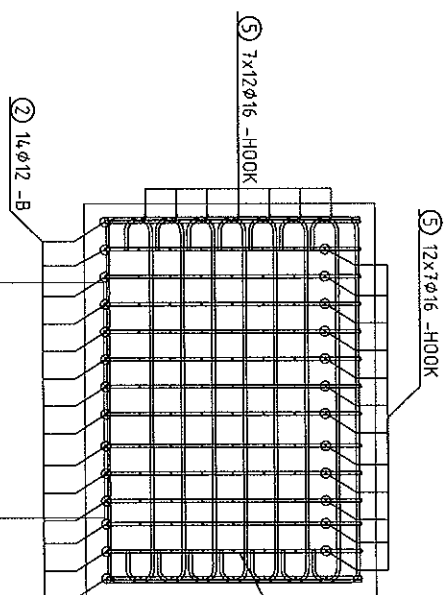
1201 L201
R64 180° 17L
⑤ 7x12φ16 L=2600 -H00K
18L9
R64 180° 17L



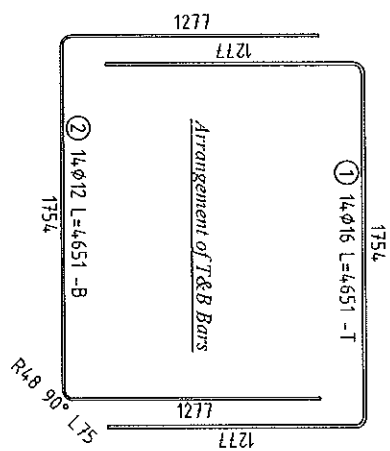
Section (A)
scale 1:25



1201 L201
R64 180° 17L
⑤ 12x7φ16 L=2600 -H00K
18L9
R64 180° 17L



Section (B)
scale 1:25



Handwritten signature

GENERAL NOTES:
- All dimensions are in millimeters.
- In case of conflict, the details shall prevail over the general notes.
- The concrete shall be of grade C25/30.
- The reinforcement shall be of grade S420.
- The bars shall be lap welded or welded mesh.
- The bars shall be bent at 90° or 45°.
- The bars shall be bent at 90° or 45°.
- The bars shall be bent at 90° or 45°.

ABBREVIATION:
- T.O.A = Top of Asphalt
- T.O.P = Top of Pavement
- T.O.B = Top of Bridge Deck
- T.O.L = Top of Road Level
- N.O.L = Normal Ground Level

NO.	DATE	ENG.	REVISION
1	11/03/2022	MAS	ISSUED FOR CONSTRUCTION

OWNER
Ministry of Transport
Ministry of Transport
Ministry of Transport
Ministry of Transport

NAME OF PROJECT
SECTION THREE (FROM WEST OF ME TO ALMAHAL)
NAME OF OWNER CONSULTANT
SYSTIA SHAKER

NAME OF CONTRACTOR
FHECOR Ingenieros Consultores

DATE	SCALE
07/2022	AS SHOWN
DRAWING BY	CHECKED BY
ENG. AMINAH ALHARBI	ENG. AMINAH ALHARBI
APPROVED BY	APPROVED BY
ENG. AMINAH ALHARBI	ENG. AMINAH ALHARBI

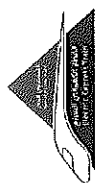
- All dimensions are in millimeters.
- Co and max/min: Horn drawings: all dimensions should
be met or exceeded.
- Plus Corrosion C0707 - Min Cap Corrosion C4050
- Certificate Govt: T&E
- Lap Splice Behavior Helical Straps
- Lap Splice Behavior Helical Straps
- Lap Splice Behavior Helical Straps

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

[illegible]

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
والمواصلات
والبحر
GARNET
الهيئة العامة للغمر والتفتيش
بمطار القاهرة

ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF NILE TO ALAMANI)

W. J. V. FHECOR
Ingenieros Consultores

6. TITLE: REGINA ROAD BRIDGE
PILE LOAD TEST

CG. NO:	DATE:	SCALE:
---------	-------	--------

07-2022 AG 540

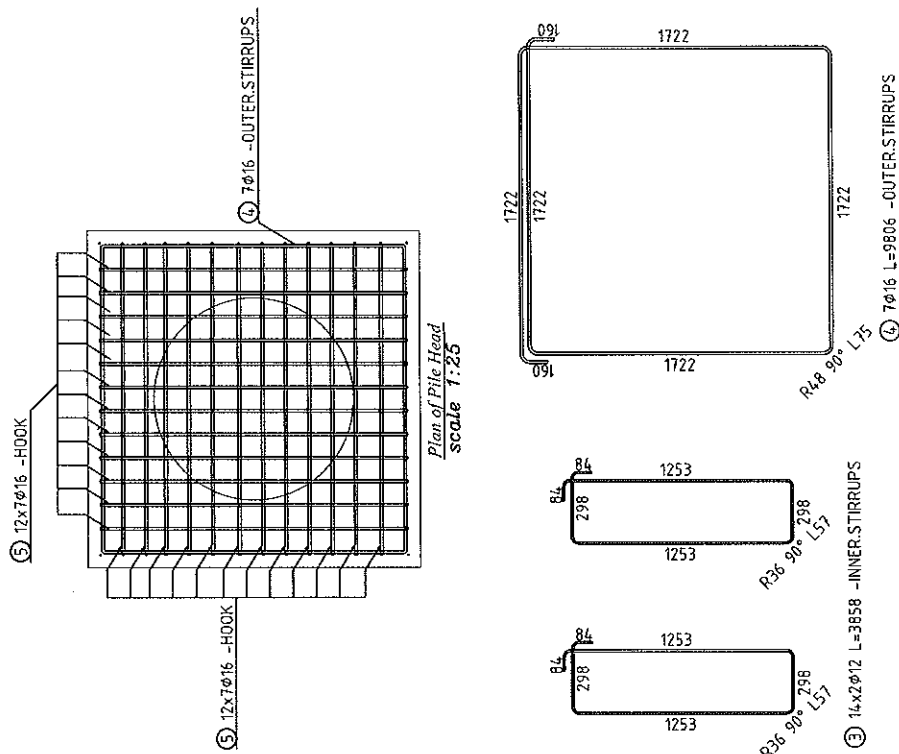
DRAWING BY:	CHECKED BY:	REVISED BY:
-------------	-------------	-------------

ENG. Mohammed Moutamad	ENG. Abdulaziz Moutamad	ENG. Moutamad
------------------------	-------------------------	---------------

[illegible]

SUPERVISOR:	APPROVED BY:

Drs. MINSHOU COSMOS



Mark	φ [mm]	Shape [mm]	Length [mm]	QTY	Mass [kg]	% of total	Notes
①	φ16		4459	28	197.05	17.6%	-T
②	φ12		4459	28	110.84	9.9%	-B
③	φ12		3498	28	86.95	7.8%	-INNER STIRRUPS
④	φ16		9230	7	101.98	9.1%	-OUTER STIRRUPS
⑤	φ16		2344	168	621.55	55.6%	-HOOK

Total mass = 1118.37 kg

Total mass = 1118.37 kg

Pile Diameter	Ø12	Ø16
TOTAL LENGTH(M)	222.796	583.254
TOTAL WEIGHT(Kg)	197.79	920.58

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			18/3/2023																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : pouring PC FOR Footing p1		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

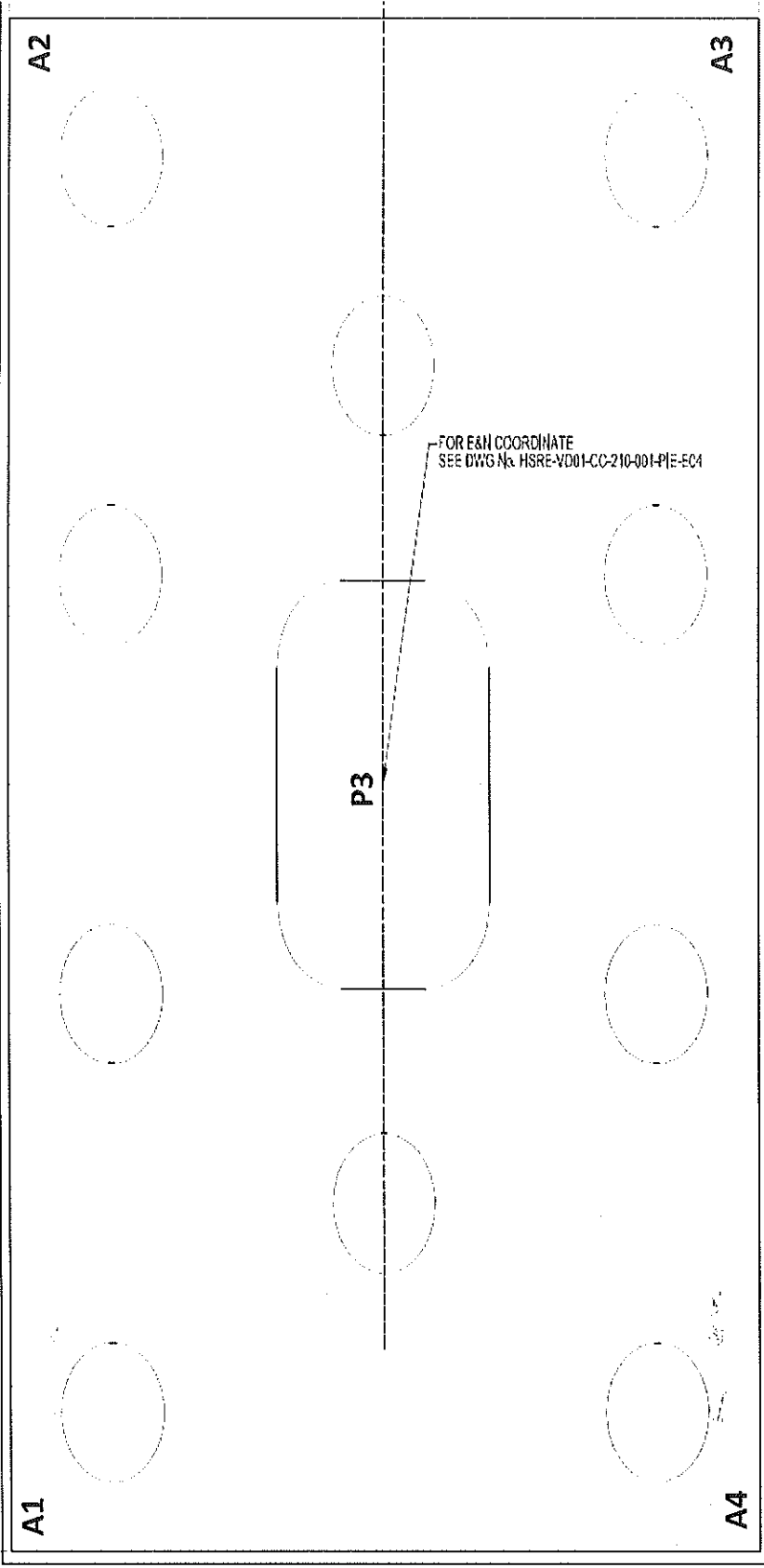
Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	12 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
Comments by:			Comments by:	

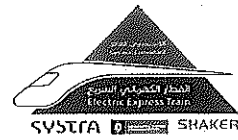
APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adh			A
QA/QC				A
Employer Representative	Mohammed Gadelouh			A



P.C FOOTING (P3) Coordinates		P.C FOOTING (P3) Dimensions	
X		Z	
A1	585467.43	830453.131	64.04
A2	585460.45	830458.811	
A3	585451.992	830448.418	
A4	585458.972	830442.737	

REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			٢٠٢٢ / ١٠ / ٤								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	الفيل العامة										

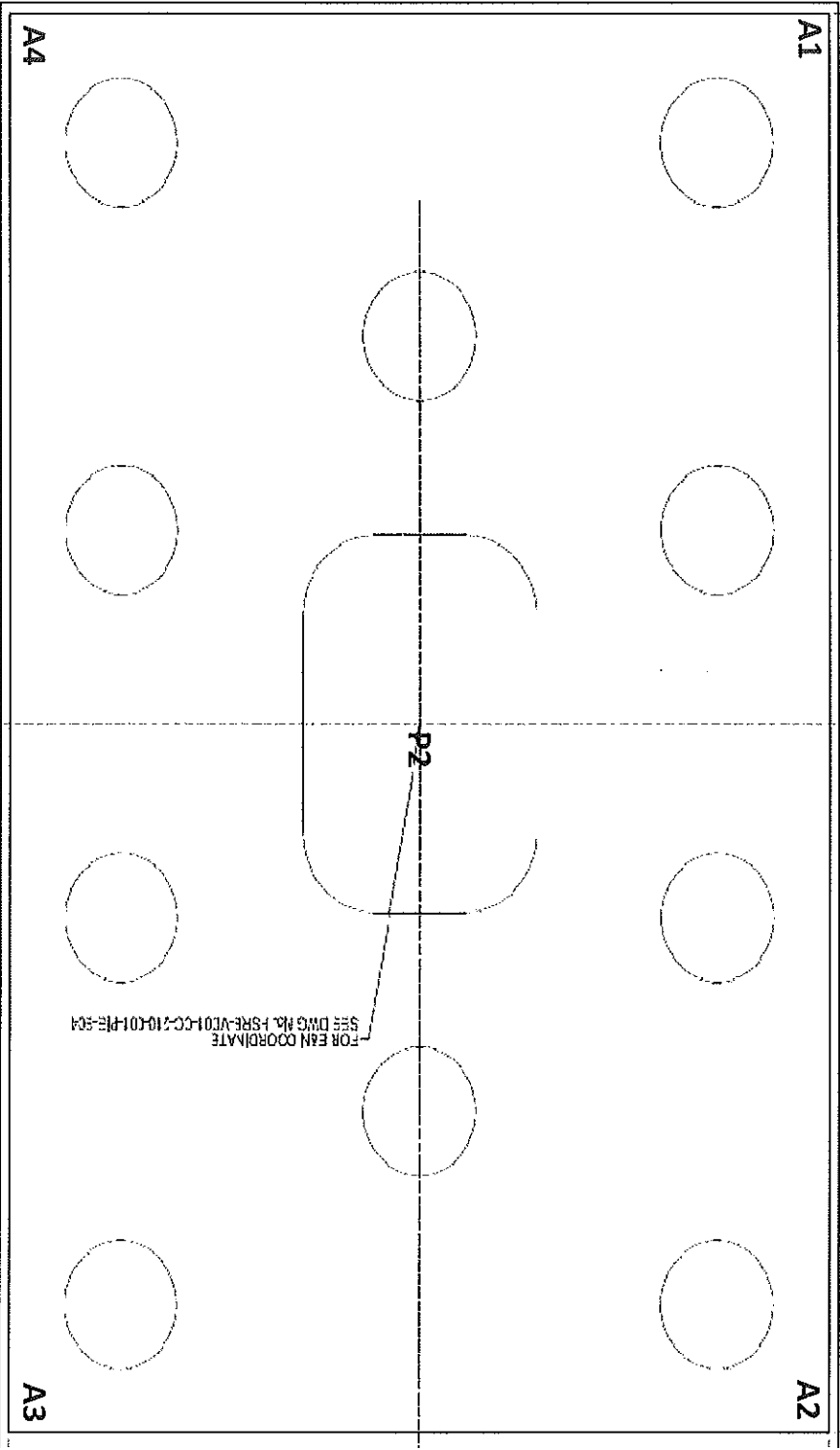
CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (P2 P.C FOOTING)			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 150 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour:	1:00 pm	Concrete Volume:	12m ³	
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			P.C FOOTING COORDINATES,level and dimensions	1
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	محمد محمود		٢٠٢٢ / ١٠ / ٤	



P.C FOOTING (P2) Coordinates		P.C FOOTING (P2) Dimensions	
X		Z	
A1	585429.425	830484.06	64.907
A2	585436.406	830478.379	
A3	585427.948	830467.986	
A4	585420.967	830473.666	

REQUEST to POUR CONCRETE

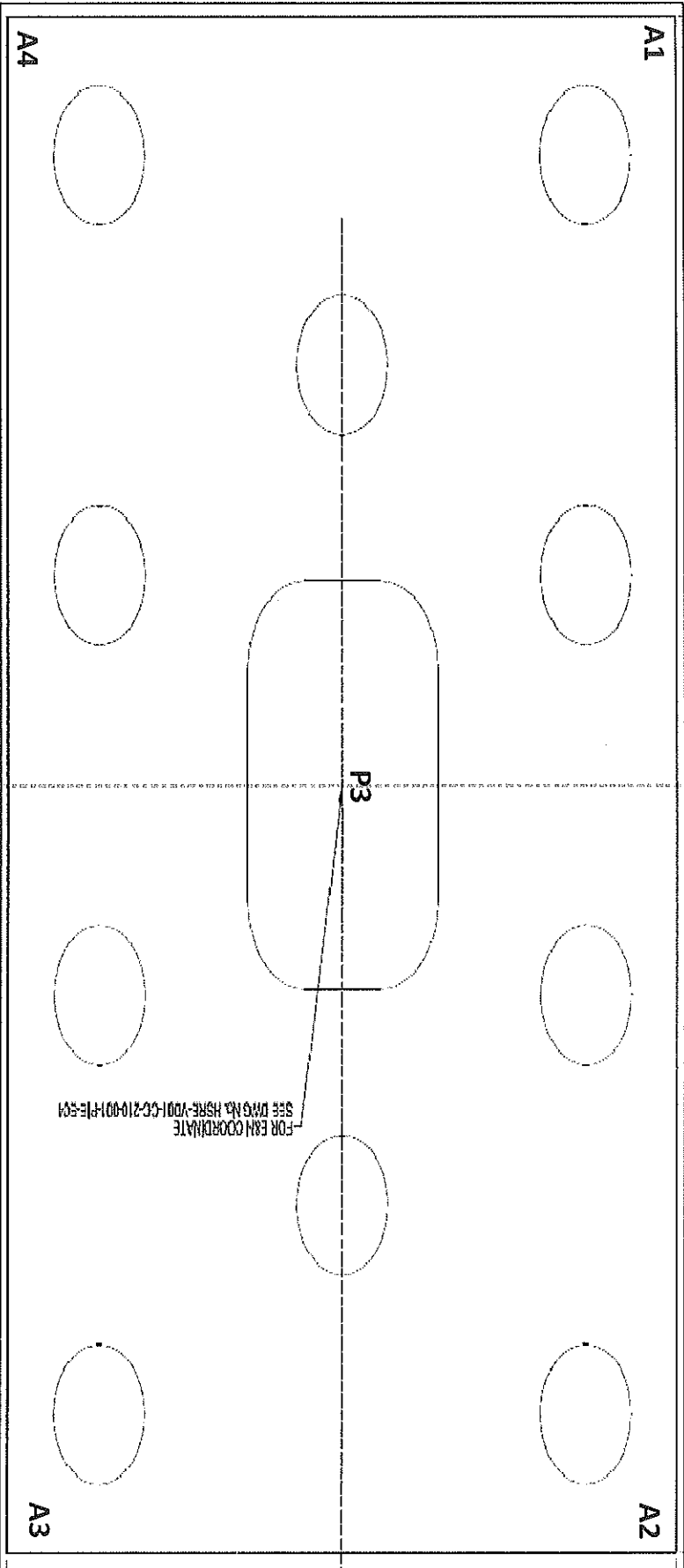


Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
	نادر رمزي		29/9/2022								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

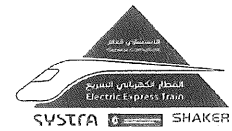
THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (P3 P.C FOOTING)			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 150 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour:	1:00 pm	Concrete Volume:	12m ³	
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			P.C FOOTING COORDINATES,level and dimensions	1
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	محمد عبد الله		29/9/2022	



P.C FOOTING (P2) Coordinates		P.C FOOTING (P2) Dimensions	
X		Z	
A1	585398.401	830509.308	13.4m
A2	585405.381	830503.627	9m
A3	585396.923	830493.234	
A4	585389.942	830498.914	

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name <i>Ahmed Adel</i>	Sign <i>[Signature]</i>	Date 21/6/2023	Time																
Received by ER		Work Activity CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

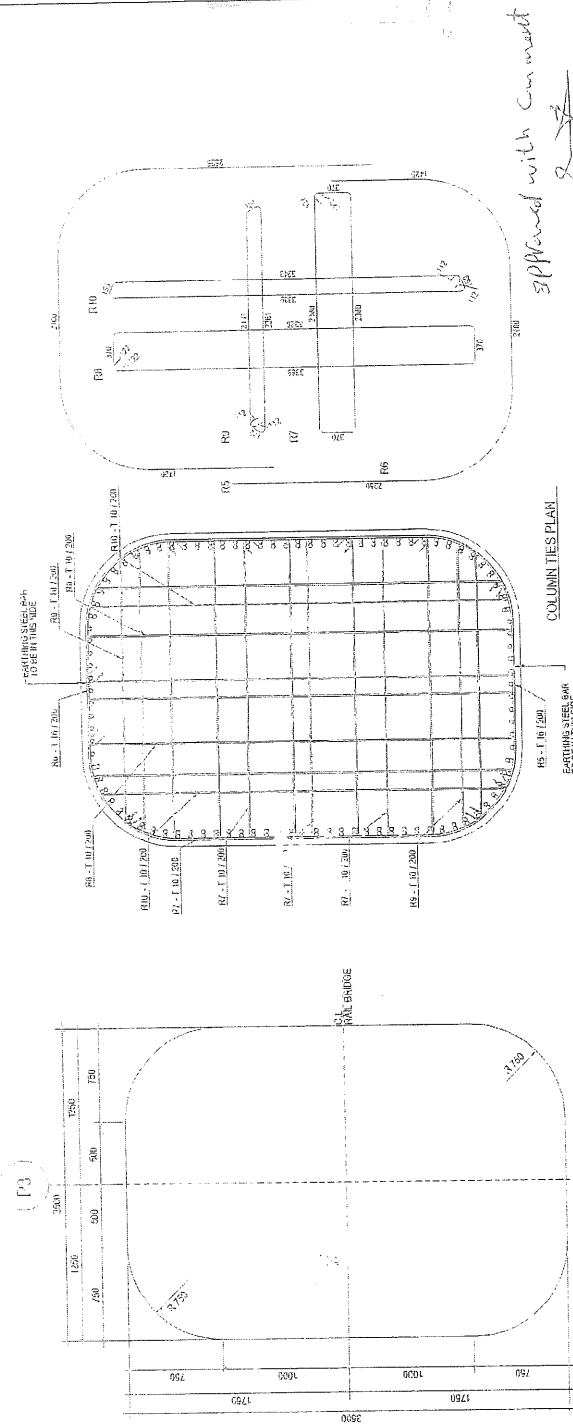
CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity : POURING Pier P1 Stem 4M HIGHT		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Location of Pour		Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km Pier P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade:
			Concrete Volume: 33M3	
Item	Document No	Revision	Title	Number of Sheets
1			SHOPDRAWING FOR COLUMN P1	
2			RESULT OF COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
3			COULMN COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Ahmed Adel</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>Mohammed Gardouh</i>	<i>[Signature]</i>		A

REVISION

1. ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
4. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
6. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
7. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
8. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
9. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
10. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.



Approved with Comment
2/2/2023

NO.	DATE	BY	REVISION
1	2/2/2023	...	...

PROJECT: ...

CLIENT: ...

DESIGNER: ...

CHECKED BY: ...

DATE: ...

SCALE: ...

PROJECT TITLE: ...

PROJECT LOCATION: ...

PROJECT DESCRIPTION: ...

PROJECT STATUS: ...

PROJECT OWNER: ...

PROJECT MANAGER: ...

PROJECT ENGINEER: ...

PROJECT ARCHITECT: ...

PROJECT STRUCTURAL ENGINEER: ...

PROJECT ELECTRICAL ENGINEER: ...

PROJECT MECHANICAL ENGINEER: ...

PROJECT CIVIL ENGINEER: ...

PROJECT ENVIRONMENTAL ENGINEER: ...

PROJECT SAFETY ENGINEER: ...

PROJECT QUALITY ENGINEER: ...

PROJECT HEALTH ENGINEER: ...

PROJECT LEGAL ENGINEER: ...

PROJECT FINANCIAL ENGINEER: ...

PROJECT COMMUNICATIONS ENGINEER: ...

PROJECT INFORMATION TECHNOLOGY ENGINEER: ...

PROJECT PROJECT MANAGEMENT ENGINEER: ...

PROJECT PROJECT COORDINATOR: ...

PROJECT PROJECT ASSISTANT: ...

PROJECT PROJECT CLERK: ...

PROJECT PROJECT OFFICE: ...

PROJECT PROJECT OFFICE ADDRESS: ...

PROJECT PROJECT OFFICE PHONE: ...

PROJECT PROJECT OFFICE FAX: ...

PROJECT PROJECT OFFICE EMAIL: ...

PROJECT PROJECT OFFICE WEBSITE: ...

PROJECT PROJECT OFFICE SOCIAL MEDIA: ...

PROJECT PROJECT OFFICE CONTACT PERSON: ...

PROJECT PROJECT OFFICE CONTACT PHONE: ...

PROJECT PROJECT OFFICE CONTACT FAX: ...

PROJECT PROJECT OFFICE CONTACT EMAIL: ...

PROJECT PROJECT OFFICE CONTACT WEBSITE: ...

PROJECT PROJECT OFFICE CONTACT SOCIAL MEDIA: ...

NOTES:

P7^N



FHECOR
Ingenieros Consultores

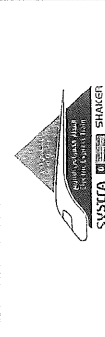
Arab House of Engineering
شركة البيت الهندسية
Tid: 2027610435 email: info@ah-engineering.com
شارع رقم ١٠٠٠

NO	12/02/22	N.A	END	FOR SUBMITAL
NO	DATE	END	REVISION	

الملك
جمهورية مصر العربية
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للطرق والكباري
القاهرة
GENERAL

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN HIGH SPEED-ARAB
SECTION THREE (FROM WEST OF AIN EL HELWAN)

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT

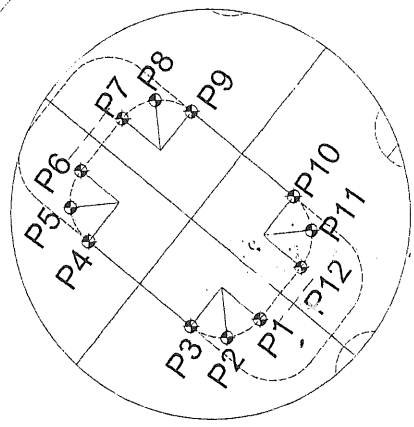
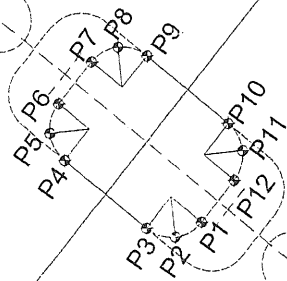
FHECOR
Ingenieros Consultores

NAME OF CONTRACTOR



DWG TITLE
COLUMNS COORDINATES
AT REGINA BRIDGE

DWG NO	DATE	COO. COOR	12/02/22	SCALE
1	12/02/22	1	1	1
DRAWING BY	CHECKED BY	END. N.A	END. A.A	END. A.A
SUPERVISOR	AT FACILITY BY	END. A.A	END. A.A	END. A.A



Point Table

Point #	Easting	Northing	Axis
P1	585458.219	830449.733	P1
P2	585457.946	830450.238	P1
P3	585458.110	830450.788	P1
P4	585459.373	830452.339	P1
P5	585459.878	830452.612	P1
P6	585460.428	830452.447	P1
P7	585461.204	830451.816	P1
P8	585461.476	830451.311	P1
P9	585461.312	830450.761	P1
P10	585460.049	830449.210	P1
P11	585459.544	830448.937	P1
P12	585458.994	830449.102	P1



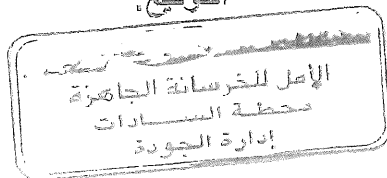
الأصل

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبري رجا)
CLIENT : شركة النيل العامة للطرق والكباري
ELEMENT : column (P1) stem
Dimension : 15*15*15 cm
Date of casting : 21/06/2023
MIX DESIGN STRENGTH : 500 kg / cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	21/06/2023	19/07/2023	28	8.542	149000	662	651
2	21/06/2023	19/07/2023	28	8.508	147200	654	
3	21/06/2023	19/07/2023	28	8.476	143400	637	

التوقيع:



مدير المركز

مدير المختبر

Head Office: Egypt National Center for Quality Control and Assurance
New City, Telefax: 02 25722009 - 02 24711453
Mokhi: 010 0109 010

Head Office: New Cairo - Heliopolis - Part 52 - 63

Tel: 02 25722009 - 02 24711453

Mobile: 010 0109 010

E-mail: info@encqa.gov.eg

Website: www.encqa.gov.eg

Facebook: www.facebook.com/encqa

Twitter: www.twitter.com/encqa

مركز مراقبة الجودة الوطني - القاهرة الجديدة - حي هليوبوليس - الجزء 52 - 63

الهاتف: 02 25722009 - 02 24711453

الفاكس: 02 25722009 - 02 24711453

البريد الإلكتروني: info@encqa.gov.eg

الموقع الإلكتروني: www.encqa.gov.eg

الصفحة الفيسبوكية: www.facebook.com/encqa

الصفحة التويترية: www.twitter.com/encqa

الصفحة اليوتيوبية: www.youtube.com/encqa

الصفحة الانستغرامية: www.instagram.com/encqa

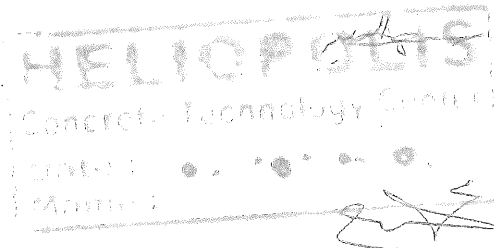
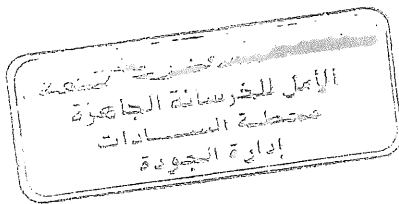
الصفحة لينكد إن: www.linkedin.com/encqa

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : column (P1)
Dimension : 15*15*15 cm
Date of casting : 21/06/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	21/06/2023	28/06/2023	7	8.532	133600	594	595
2	21/06/2023	28/06/2023	7	8.574	136100	605	
3	21/06/2023	28/06/2023	7	8.484	131600	585	

التوقيع :



Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Naser City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadet City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
010228459673 - 01003650635 - 01004 - 76497

مركز البحوث والدراسات
للمواد الإنشائية الجاهزة
والخرسانة الجاهزة
مركز البحوث والدراسات
للمواد الإنشائية الجاهزة
والخرسانة الجاهزة
مركز البحوث والدراسات
للمواد الإنشائية الجاهزة
والخرسانة الجاهزة

الإدارة
موقع العمل

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name Ahmed Adel	Sign 	Date 11/6/2023	Time																
Received by ER		Work Activity CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : POURING Pier P2 Stem 4M HIGHT		
CODE-3	Sub Element of Activity		

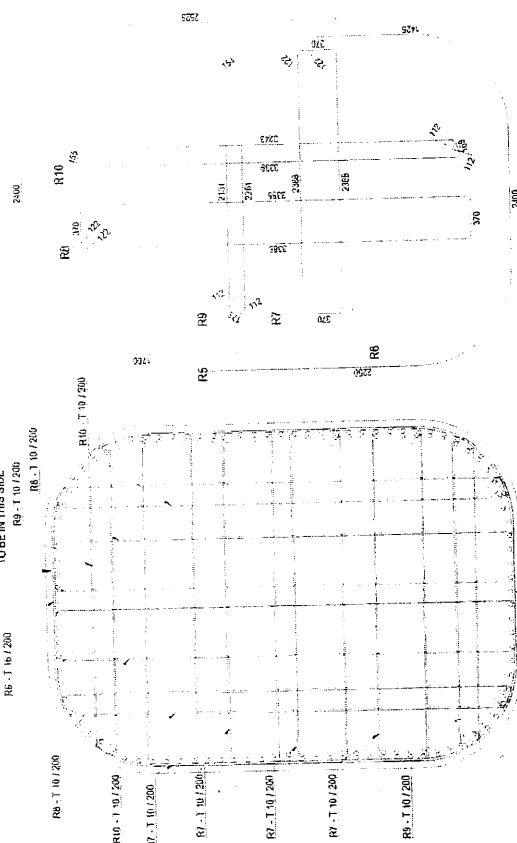
THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Location of Pour		Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km Pier P2		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade:
			Concrete Volume: 33M3	
Item	Document No	Revision	Title	Number of Sheets
1			SHOPDRAWING FOR COLUMN P2	
2			RESULT OF COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
3			COULMN COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammed Gardouh			A

NOTES:

- 1- ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN MILLIMETERS. ALL ELEVATIONS & COORDINATES ARE 5-DIGIT IN THE UTM.
- 2- FOR PROJECT GENERAL NOTES, SEE DRAWING NO. 100-000000-000000.
- 3- SEE DRAWING NO. 100-000000-000000 FOR SETTING OUT COORDINATES.
- 4- REINFORCED CONCRETE GRADE C40/50.
- 5- FOR EARTHWORK & BRIDGE DETAILS, SEE DRAWING NO. 100-000000-000000.
- 6- FOR REINFORCING STEEL, SEE DRAWING NO. 100-000000-000000.

EARTHWORK STEEL BAR TO BE IN THIS SIDE



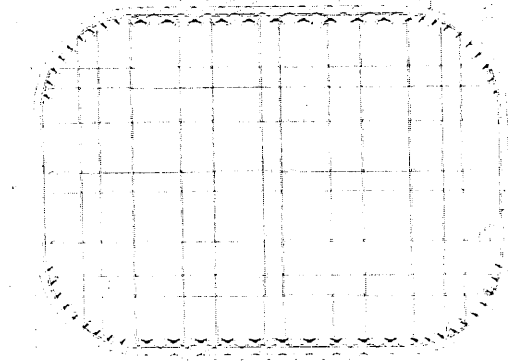
EARTHWORK STEEL BAR TO BE IN THIS SIDE

RB - 1/10/200

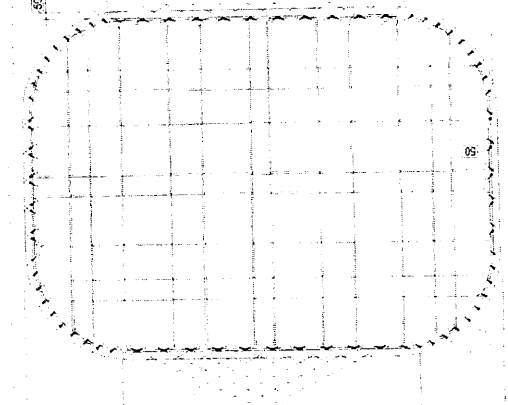
COLUMN TIES PLAN

approved with notes
9/5/2023

COLUMN CONCRETE DIMENSIONS

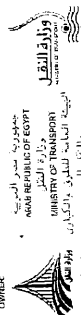


INNER BARS ARRANGEMENT PLAN



OUTER BARS ARRANGEMENT PLAN

NO.	DATE	BY	FOR
0	15/04/2023	MM	AS PER INSTRUCTIONS
1	15/04/2023	MM	AS PER INSTRUCTIONS
2	15/04/2023	MM	AS PER INSTRUCTIONS
3	15/04/2023	MM	AS PER INSTRUCTIONS
4	15/04/2023	MM	AS PER INSTRUCTIONS
5	15/04/2023	MM	AS PER INSTRUCTIONS
6	15/04/2023	MM	AS PER INSTRUCTIONS
7	15/04/2023	MM	AS PER INSTRUCTIONS
8	15/04/2023	MM	AS PER INSTRUCTIONS
9	15/04/2023	MM	AS PER INSTRUCTIONS
10	15/04/2023	MM	AS PER INSTRUCTIONS
11	15/04/2023	MM	AS PER INSTRUCTIONS
12	15/04/2023	MM	AS PER INSTRUCTIONS
13	15/04/2023	MM	AS PER INSTRUCTIONS
14	15/04/2023	MM	AS PER INSTRUCTIONS
15	15/04/2023	MM	AS PER INSTRUCTIONS
16	15/04/2023	MM	AS PER INSTRUCTIONS
17	15/04/2023	MM	AS PER INSTRUCTIONS
18	15/04/2023	MM	AS PER INSTRUCTIONS
19	15/04/2023	MM	AS PER INSTRUCTIONS
20	15/04/2023	MM	AS PER INSTRUCTIONS



NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN HIGH SPEED RAIL
SECTION THREE (FROM VIET OF RAIL TO ALAMAH)

NAME OF OWNER CURRENT TAT



NAME OF CONTRACTOR CONSULTANT

NE J FHECOR
Ingenieros Consultores

MAIN CONTRACTOR



DRWG TITLE

REGINA ROAD BRIDGE
CONCRETE DIMENSIONS
PER @ AXES P2 PLAN & SECTIONS

DATE: 15/04/2023

AS SHOWN

CHECKED BY: Eng. Ezzat Elsay

APPROVED BY: Eng. Ezzat Elsay

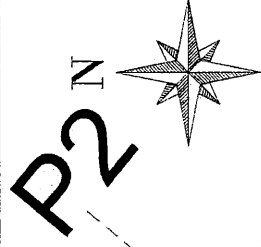
DATE: 15/04/2023

SCALE

APPENDIX

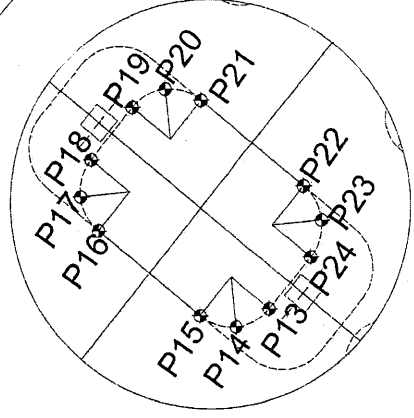
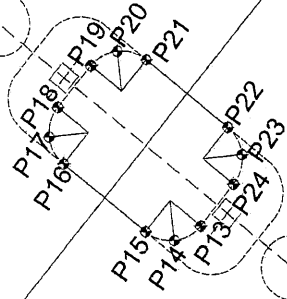
BY: 15/04/2023

NOTES:



Arab House of Engineering
شركة بيت الهندسة
Tél: +2027109435 e-mail: info@ah-e.com
صاحب رقم ١٥

Point Table				
Point #	Easting	Northing	Axis	
P13	585427.194	830474.981	P2	
P14	585426.921	830475.486	P2	
P15	585427.085	830476.036	P2	
P16	585428.348	830477.587	P2	
P17	585428.853	830477.860	P2	
P18	585429.403	830477.696	P2	
P19	585430.179	830477.064	P2	
P20	585430.451	830476.559	P2	
P21	585430.287	830476.009	P2	
P22	585429.025	830474.458	P2	
P23	585428.519	830474.185	P2	
P24	585427.969	830474.350	P2	



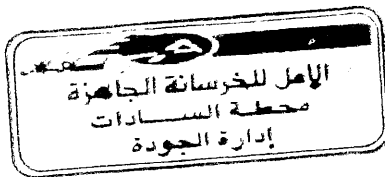
FOR SUBMITTAL		REVISION	
NO.	DATE	NO.	DATE
00	12/2022		
OWNER			
جمهورية مصر العربية ARAB REPUBLIC OF EGYPT وزارة النقل MINISTRY OF TRANSPORT الهيئة العامة للطرق والكباري R.A.G.E. GENERAL			
NAME OF PROJECT			
ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL) SECTION THREE (FROM WEST OF NILE TO ALAMAH)			
NAME OF OWNER CONSULTANT			
SYSTEM SHAKER			
NAME OF CONTRACTOR CONSULTANT			
FHECOR Ingenieros Consultores			
MAIN CONTRACTOR			
DWG TITLE			
COLUMNS COORDINATES AT REGVA BRIDGE			
DWG NO.	COL. CO-02	DATE	SCALE
150	12/2022		1:50
DRAWING BY	DESIGNED BY	CHECKED BY	
ENG. O.M.	ENG. K.A.	ENG. A.A.	
SUPERVISOR		APPROVED BY	
EN. MUSTAFA MANSOUR		EN. JAFET TOUNG	

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : column (P2) stem
Dimension : 15*15*15 cm
Date of casting : 11/06/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	11/06/2023	18/06/2023	7	8.632	123000	547	538
2	11/06/2023	18/06/2023	7	8.681	113200	503	
3	11/06/2023	18/06/2023	7	8.567	126700	563	

التوقيع:



تأشير المهندس

تأشير المهندس

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimali St. - Tanta District
Nesr City/Telefax: 02 35573307 - 02 34713558
Mobile: 0110116777
Work Office : New Cairo - Katameia - Part 82 - 83
Tel: 30341176 Fax: 30340109
T: 027450595 H: 026814170 M: 0106055860
El-Dokki City - Industrial Zone (P) - Part 700P - 2006
Tel: 0240360007 Fax: 0240360040
T: 0240360007 M: 0240360040

الإدارة : 1. محل الشركة بميدان، كاتاميا، شارع شيمالى - الطابق الرابع - المنطقة الصناعية
شركة النيل للخرسانة الجاهزة : 02 35573307 - 02 34713558
موبايل : 0110116777
موقع العمل : 2. المنطقة الصناعية - القليوبية - كاتاميا - الجزء 82 - 83
027450595 - 026814170 - 0106055860
0240360007 - 0240360040
0240360007 - 0240360040
0240360007 - 0240360040

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : column (P2) stem
Dimension : 15*15*15 cm
Date of casting : 18/06/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	18/06/2023	16/07/2023	28	8.496	149800	666	653
2	18/06/2023	16/07/2023	28	8.510	148300	659	
3	18/06/2023	16/07/2023	28	8.587	142600	634	

التوقيع:

الامر للخرسانة الجاهزة
محطة السادات
إدارة الجودة

Head Office : Egypt Medical Center mall - Fourth Floor - Dr. Shmouni - Tenth District
New City, Telecom. 02 25512007 - 02 247 1556
Mobile 01111907310

Workshop : New Cairo - Helwan - Part 80 - 85

Tel : 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

01111907310 - 01111907310 - 01111907310

REQUEST to POUR CONCRETE



Contractor Company			Designer Company	
Issued by Contractor	Name	Sign	Date	Time
			11/6/2023	
Received by ER		Work Activity	CON	
Contractor Reference	النيل العامة			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : POURING COLUMN P3 FIRST STAGE 4M HIGHT		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km COLUMN (P3)			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	
	Grade:			
	Concrete Volume: 33M3			
Item	Document No	Revision	Title	Number of Sheets
1			SHOPDRAWING FOR COLUMN P3	
2			RESULT OF COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
3			COULMN COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Mohamed ABD			A
QA/QC				A
Employer Representative	Mohammed Gadouh			A

NOTES:

P3 N



FHECOR
Ingenieros Consultores

Arab House of Engineering
مركز البحوث والدراسات الهندسية
Toll: +967 11 4435
www.ahouseofengineering.com
شارع ربيع
٩٢٧٧
٢٠٢١/١٠

NO.	12002	K.A.	ENG.	NEWBAY
DATE				

OWNER
مملكة البحرين
Ministry of Transport
وزارة النقل
الهيئة العامة للطرق والمواصلات
General

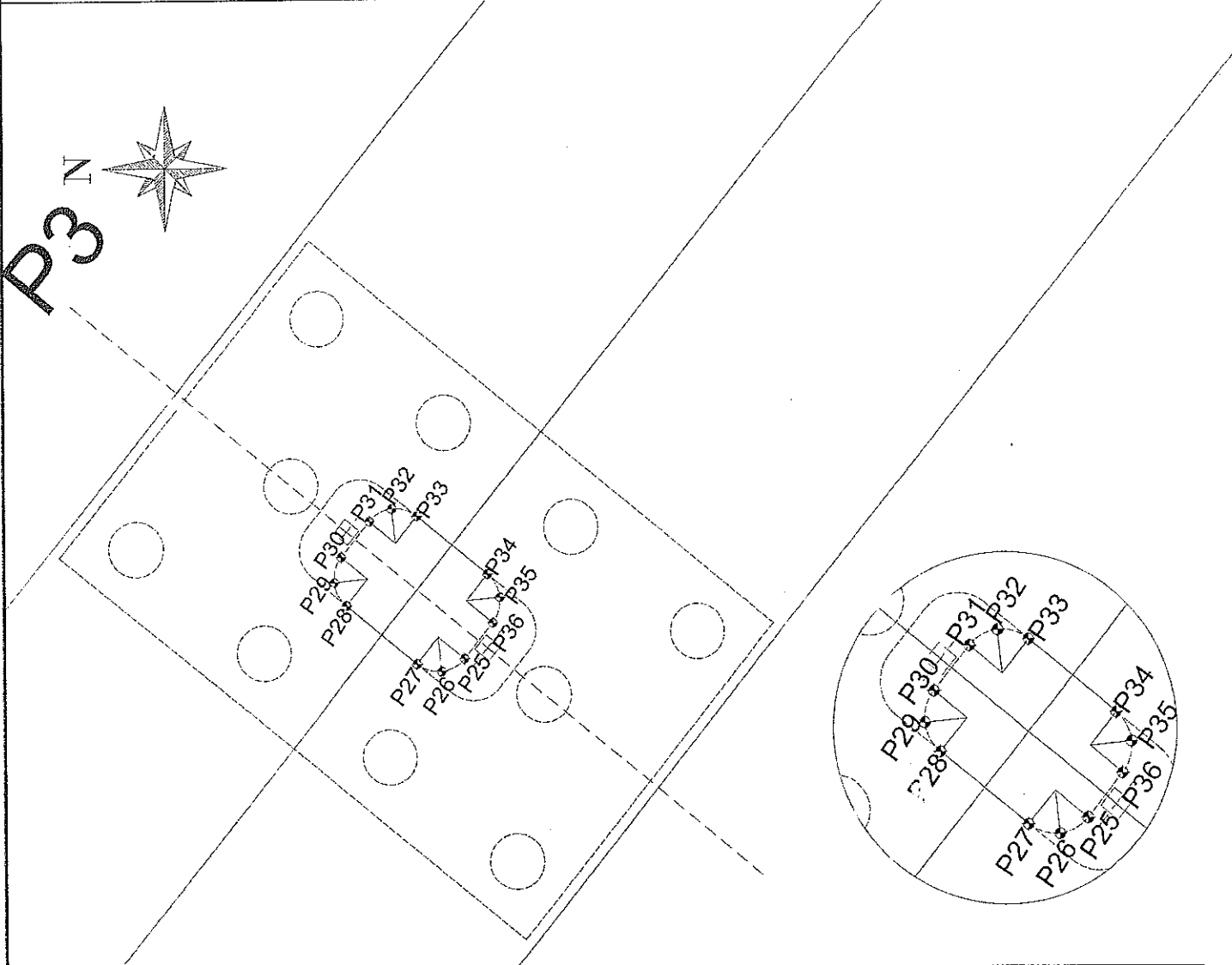
NAME OF PROJECT
ELECTRICAL EXPRESS TRAFFIC LIGHTS
SECTION THREE (PROJECT OF FIVE TO ALAMAR)

NAME OF CONSULTANT
FHECOR

NAME OF CONTRACTOR
FHECOR
Ingenieros Consultores



CIVIL TITLE	COLUMNS COORDINATES AT REGIA BRIDGE
DATE	12/02/2021
SCALE	1:50
DESIGNED BY	ENG. A.S.
CHECKED BY	ENG. A.S.
APPROVED BY	ENG. A.S.
DATE	12/02/2021



Point Table

Point #	Easting	Northing	Axis
P25	585396.169	830500.229	P3
P26	585395.896	830500.734	P3
P27	585396.061	830501.284	P3
P28	585397.323	830502.836	P3
P29	585397.828	830503.108	P3
P30	585398.379	830502.944	P3
P31	585399.154	830502.313	P3
P32	585399.427	830501.808	P3
P33	585399.262	830501.258	P3
P34	585398.000	830499.706	P3
P35	585397.495	830499.433	P3
P36	585396.945	830499.598	P3

NOTES:

- 1- ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN MILLIMETERS. (M)
- 2- FOR PRODUCT GENERAL INFORMATION SEE DRAWING NO. 1407-400
- 3- FOR PRELIMINARY DIMENSIONS AND SETTING OUT COORDINATES SEE DRAWING NO. 1407-400
- 4- REINFORCED CONCRETE GRADE C20/25
- 5- FOR EARTHWORKS AND BONDING DETAILS SEE DRAWING NO. 1407-400
- 6- FOR REINFORCING STEEL SEE DRAWING NO. 1407-400

AF FHECOR
Ingenieros Consultores

AF FHECOR
Ingenieros Consultores

NO.	DATE	REVISION
1	2014/01/01	1

AF FHECOR
Ingenieros Consultores

AF FHECOR
Ingenieros Consultores

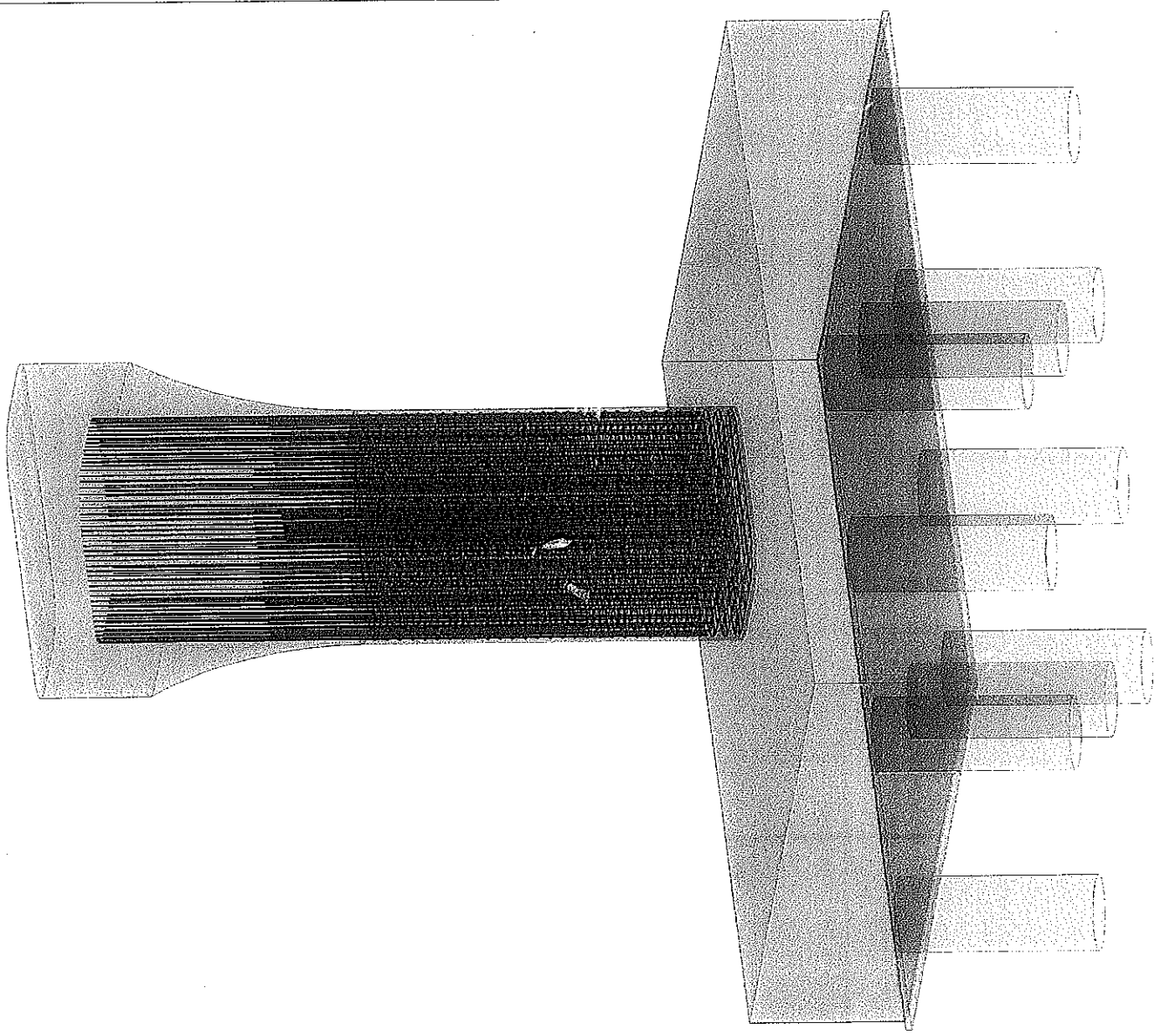
AF FHECOR
Ingenieros Consultores

AF FHECOR
Ingenieros Consultores

AF FHECOR
Ingenieros Consultores

AF FHECOR
Ingenieros Consultores

AF FHECOR
Ingenieros Consultores



NOTES:

1. ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN MILLIMETERS. ALL ELEVATIONS & COORDINATES ARE SHOWN IN METERS.
2. FOR PROJECT GENERAL NOTES
3. FOR PIER CONCRETE DIMENSION & SETTING OUT COORDINATES SEE DRAWING NO. HSRE-A001-CC-004-001-000-000
4. FOR PIER CONCRETE DIMENSION & SETTING OUT COORDINATES SEE DRAWING NO. HSRE-A001-CC-004-001-000-000
5. FOR PIER CONCRETE DIMENSION & SETTING OUT COORDINATES SEE DRAWING NO. HSRE-A001-CC-004-001-000-000
6. FOR REINFORCING STEEL SEE DRAWING NO. HSRE-A001-CC-004-001-000-000

11-11-2020

11-11-2020

NO.	DATE	BY	REVISION
1	11-11-2020	11-11-2020	11-11-2020

OWNER: **الهيئة العامة للطرق والنقل والمرى**
الهيئة العامة للطرق والنقل والمرى
الهيئة العامة للطرق والنقل والمرى

NAME OF PROJECT: **REINFORCED CONCRETE BRIDGE**
 SECTION THREE (FROM WEST OF PIER TO EAST)

NAME OF OWNER CONSULTANT: **AL-FECON**
Ingenieros Consultores

NAME OF CONTRACTOR CONSULTANT: **AL-FECON**
Ingenieros Consultores

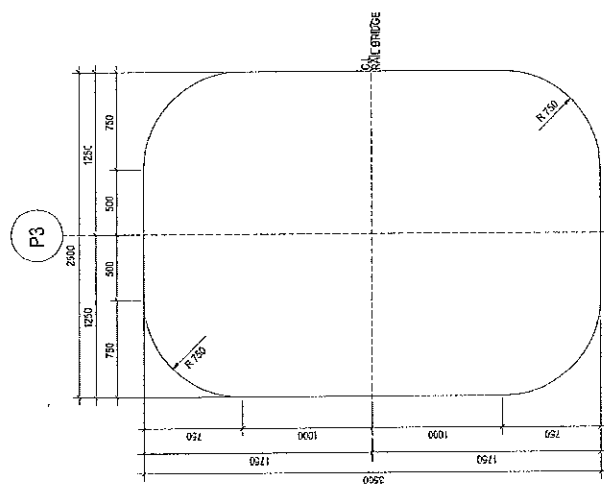
NAME CONTRACTOR: **AL-FECON**
Ingenieros Consultores

DWG. TITLE: **REINFORCED CONCRETE BRIDGE**
PIER @ AXIS P3 PLAN & SECTIONS

DWG. NO.: **11-11-2020**
 SCALE: **1:100**

DESIGNED BY: **11-11-2020**
 CHECKED BY: **11-11-2020**
 DATE: **11-11-2020**

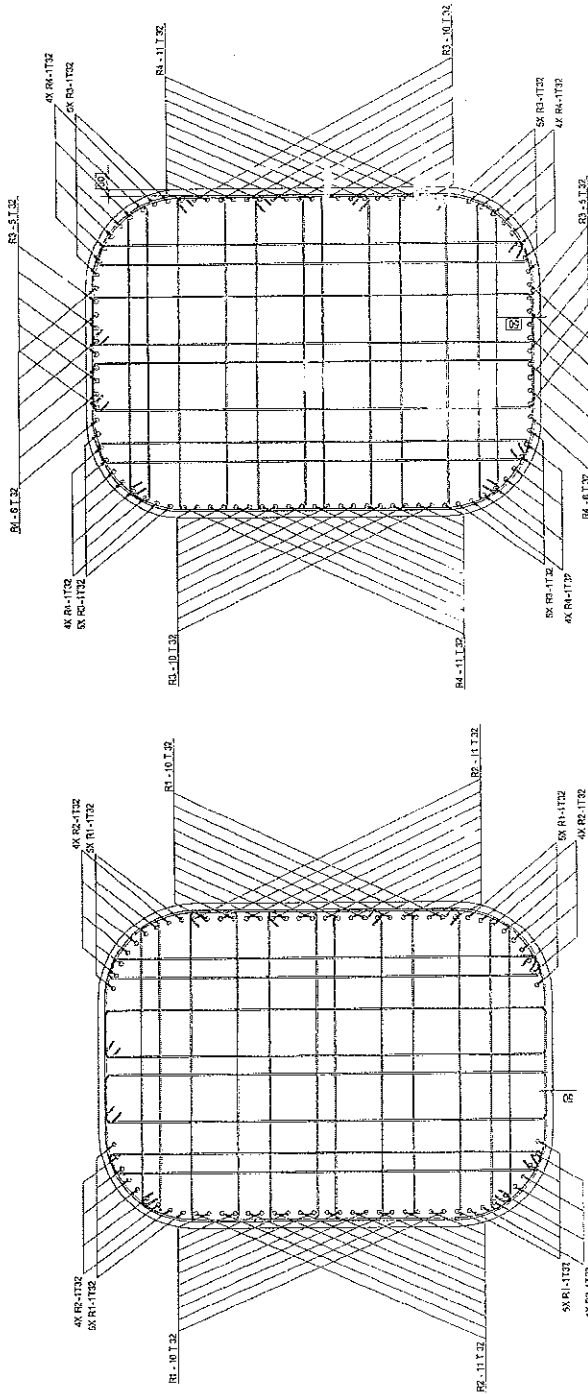
APPROVED BY: **11-11-2020**
 DATE: **11-11-2020**



COLUMN TIES PLAN

REINFORCING STEEL BAR TO BE IN THIS SIDE

COLUMN CONCRETE DIMENSIONS



OUTER BARS ARRANGEMENT PLAN

INNER BARS ARRANGEMENT PLAN



Al-Amal Ready mix

الأمال

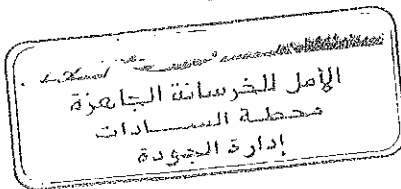
مختبر الخرسانة الجاهزة
رأس المال قدره ١٥٠ مليون جنيه
والصندوق ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : column (P3)
Dimension : 15*15*15 cm
Date of casting : 11/06/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	11/06/2023	09/07/2023	28	8.622	148000	658	668
2	11/06/2023	09/07/2023	28	8.596	149600	665	
3	11/06/2023	09/07/2023	28	8.514	153000	680	

التوقيع:



HELIOPOLIS
Concrete Technology Center
Date :
Name :

مدير المختبر

مدير المختبر

تاريخ الاختبار

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459873 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
web-site: www.alamalreadymix.com

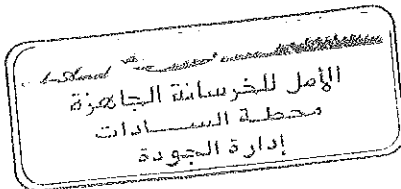
الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٢٢٧٨٥٥٥٩٦ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٠٦٠٢٢٨٦٠
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - فاكس : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠١٨٤٩٦٧٢

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : column (P3)
Dimension : 15*15*15 cm
Date of casting : 11/06/2023
MIX DESIGN STRENGTH : 500 kg / cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	11/06/2023	18/06/2023	7	8.632	123000	547	538
2	11/06/2023	18/06/2023	7	8.681	113200	503	
3	11/06/2023	18/06/2023	7	8.567	126700	563	

التوقيع:



HELIOPOLIS
Concrete Technology Center
Date :
Name :

تأريخ
2023

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة
محل إيجيت ميدكال سنتر - الدور الرابع - ش. د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطرية ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٧

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

REQUEST

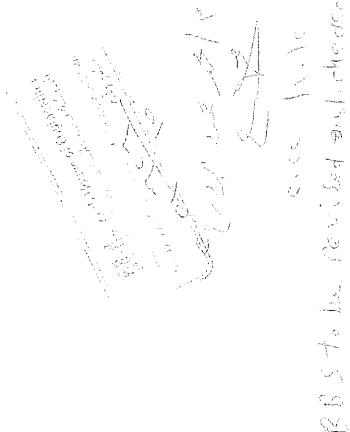
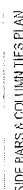


Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			24/5/2023																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity : pouring footing p1		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P1			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade:500 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour:		Concrete Volume: 290 m ³		
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-28 COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative	Mohammed Garsoul			A



Part Name	Size	Qty.	Len-1	Weight	Steel Grade	User Design
R1	25	43	12000	55.25	1500	
R10	22	22	12000	35.81	787.8	
R1	32	86	12000	75.77	8516.0	
R2	32	86	5500	34.73	2986.5	
R3	32	130	12000	75.77	9849.8	
R6	25	130	12000	46.25	6012.2	
R7	25	86	12000	46.25	3977.3	
R8	25	86	5000	20.12	1980.7	
R9	22	6	12000	35.81	214.8	
R11	27	16	12000	35.81	572.9	
R12	32	89	5000	31.57	2778.2	
R13	32	90	7000	44.20	3977.8	
R14	16	10	6000	9.47	94.7	
R15	16	16	6150	9.89	99.2	
R16	22	550	2000	5.97	3342.1	
R17	22	550	2500	6.57	3676.4	
R18	16	1060	2000	3.16	3300.6	
R19	16	1049	1770	2.71	2047.0	
R20	10	80	3000	1.85	111.1	
R21	10	40	3700	2.28	91.3	
R22	10	20	3850	3.49	60.8	
R23	10	20	4000	2.47	49.4	
R24	16	20	2000	1.74	21.7	
R25	10	40	4000	2.47	49.4	

[illegible]SEVERE
SYMPTOMS

EXPERIMENTAL FACTORS

[illegible][illegible]

NOTE OF RECORD.



ALL INFORMATION CONTAINED

V FHECOR IT
Ingenieros Consultores



NEWARK ROAD BRIDGE
REINFORCING STEEL
WORKS
2000 S. JONES ST. NEWARK, N.J. 07102
Tel. (201) 635-1000
Telex 251 100
Fax (201) 635-1000

NOTES:

P7^N



FHECOR
Ingenieros Consultores

Arab House of Engineering
شركة بيت الهندسة
Tid: 2027610435 email: info@ah-engineering.com
صاحب رقم ترخيص

NO	120022	K.A	ENG	FOR SUBMITAL
REVISION				

جهازية مصر الجديدة
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للطرق والكباري
القسم الهندسي
GABRIEL

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN HIGH SPEED - JALALI
SECTION THREE (FROM FIRST OF FILE TO ALAMAH)

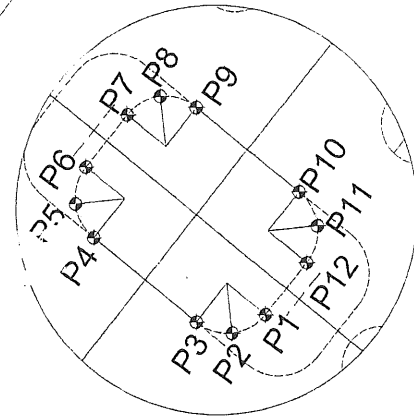
NAME OF OWNER, CONSULTANT
SYSTEM ENGINEERING SHARER

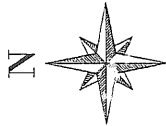
NAME OF CONTRACTOR CONSULTANT
FHECOR
Ingenieros Consultores



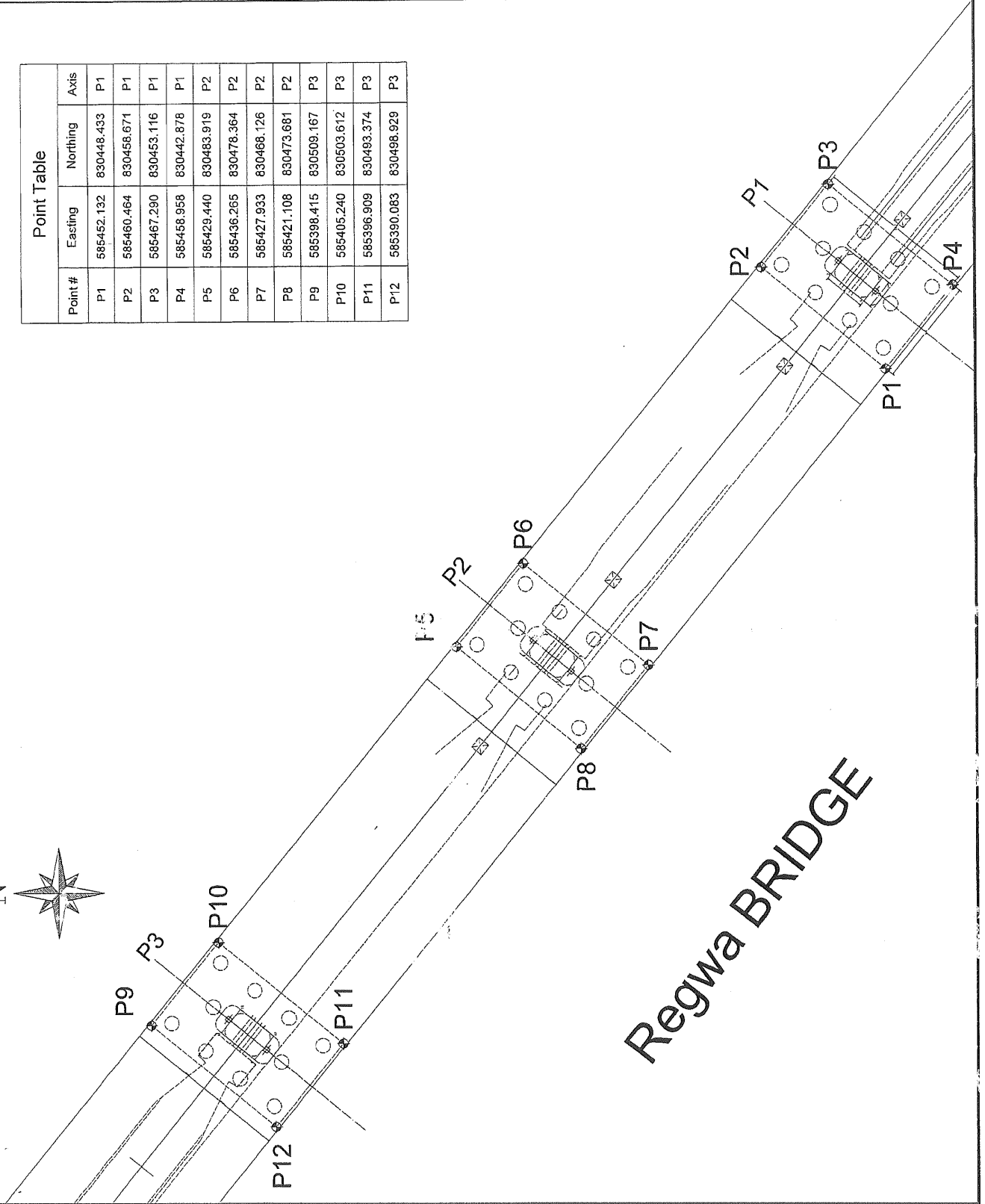
COLUMNS COORDINATES AT REGINA BRIDGE	
DATE	12/0022
SCALE	1:50
DRAWING BY	ENG. K.A
CHECKED BY	ENG. A.A
APPROVED BY	ENG. A.A
SUPERVISOR	ENG. A.A
DR. Technical Liaison	ENG. A.A

Point Table				
Point #	Easting	Northing	Axis	
P1	585458.219	830449.733	P1	
P2	585457.946	830450.238	P1	
P3	585458.110	830450.788	P1	
P4	585459.373	830452.339	P1	
P5	585459.878	830452.612	P1	
P6	585460.428	830452.447	P1	
P7	585461.204	830451.816	P1	
P8	585461.476	830451.311	P1	
P9	585461.312	830450.761	P1	
P10	585460.049	830449.210	P1	
P11	585459.544	830448.937	P1	
P12	585458.994	830449.102	P1	





Point Table			
Point #	Easting	Northing	Axis
P1	585452.132	830448.433	P1
P2	585460.464	830458.671	P1
P3	585467.290	830453.116	P1
P4	585458.958	830442.878	P1
P5	585429.440	830483.919	P2
P6	585436.265	830478.364	P2
P7	585427.933	830468.126	P2
P8	585421.108	830473.681	P2
P9	585398.415	830509.167	P3
P10	585405.240	830503.612	P3
P11	585396.909	830493.374	P3
P12	585390.083	830498.929	P3



NOTES:

FHECOR
Ingenieros Consultores

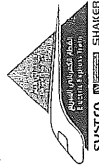
Arab House of Engineering
البيت العربي للمهندسين
Toll +977 9 2422 7000
شارع رقم 999
C-20

[Handwritten signature]

OWNER
NO. DATE ENG. REVISION
الملك
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
Ministry of Transport
الهيئة العامة للطرق والكباري
General Authority of
Roads and Bridges
CABLET

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF ILE TO ALAMAH)

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT

FHECOR
Ingenieros Consultores



NAME CONTRACTOR

DRAWING TITLE

FOUNDATION COORDINATES
AT REGWA BRIDGE

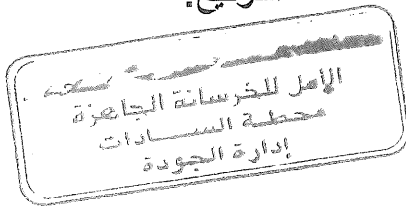
DWG. NO.	DATE	SCALE
HSR-ADIF-2041	10/02/22	1:100
DRAWING BY	CHECKED BY	
Eng. Ahmed Elsay	Eng. Mohamed Elsay	
SUPERVISOR	APPROVED BY	
DR. Mohamed Elsay	Eng. Jaber Tawfik	

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMENT : Pile Cap (P1)
Dimension : 15*15*15 cm
Date of casting : 24/05/2023
MIX DESIGN STRENGTH : 500 kg/cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	24/05/2023	31/05/2023	7	8.461	109200	485	497
2	24/05/2023	31/05/2023	7	8.567	113800	506	
3	24/05/2023	31/05/2023	7	8.481	112700	501	
4	24/05/2023	31/05/2023	7	8.586	117450	522	
5	24/05/2023	31/05/2023	7	8.601	110020	489	
6	24/05/2023	31/05/2023	7	8.524	109800	488	
7	24/05/2023	31/05/2023	7	8.496	115060	511	
8	24/05/2023	31/05/2023	7	8.502	110900	493	
9	24/05/2023	31/05/2023	7	8.537	106900	475	

التوقيع:



HELIOFOLIS
Concrete Technology Center
Date :
Name :

Signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01026459673 - 01006880635 - 01004976497

موقع العمل :
القاهرة الجديدة - القطامية قطعة 82 - 83
ت: 29841136 / ف: 29840109
01227855596 - 01068844170 - 01006033860
مدينة السادات - المنطقة الصناعية قطعة 7003 - 7005
ت: 048/2630145 - ف: 048/2630140
01026459673 - 01006880635 - 01004976497

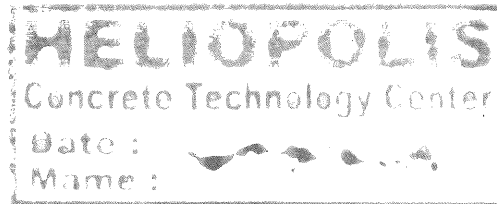
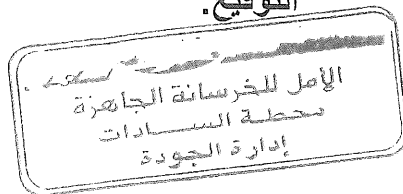
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile Cap (P1)
Dimension : 15*15*15 cm
Date of casting : 24/05/2023
MIX DESIGN STRENGTH : 500 kg/cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	24/05/2023	21/06/2023	28	8.502	134200	596	638
2	24/05/2023	21/06/2023	28	8.551	144000	640	
3	24/05/2023	21/06/2023	28	8.592	135500	602	
4	24/05/2023	21/06/2023	28	8.474	148600	660	
5	24/05/2023	21/06/2023	28	8.644	144900	644	
6	24/05/2023	21/06/2023	28	8.615	139600	620	
7	24/05/2023	21/06/2023	28	8.720	150800	670	
8	24/05/2023	21/06/2023	28	8.586	145600	647	
9	24/05/2023	21/06/2023	28	8.588	148700	661	

التوقيع:



مدير المختبر

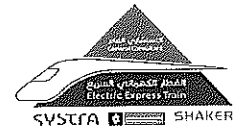
مدير المختبر

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006380635 - 01004976497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٩٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٤٨ / ٢٦٣٠١٤٠ - ف : ٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٩٦٧٢

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			5/3/2023								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity : pouring footing p2		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km FOOTING P2		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 500 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	290 m ³

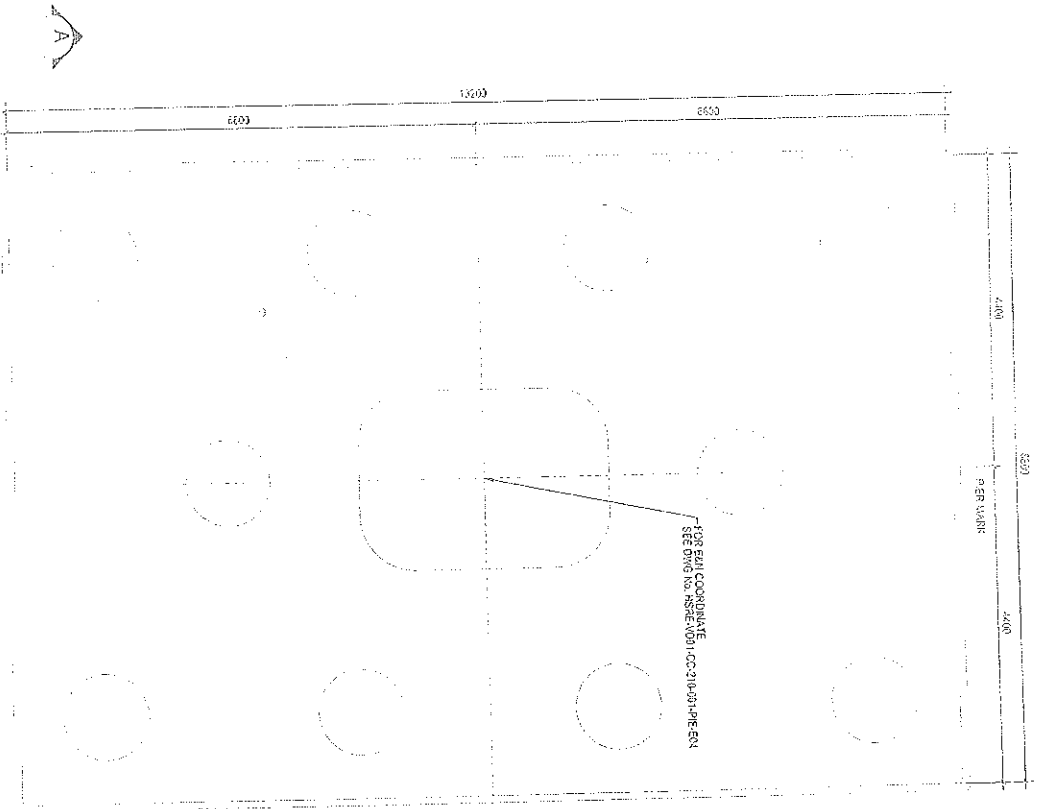
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-28 COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR footing	
3			footing COORDINATES	
Comments by:			Comments by:	

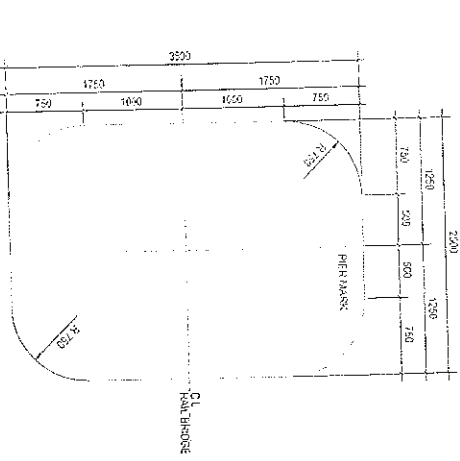
APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer	Mohamed Gardoun			A

PILE CAP TYPE 1 PLAN

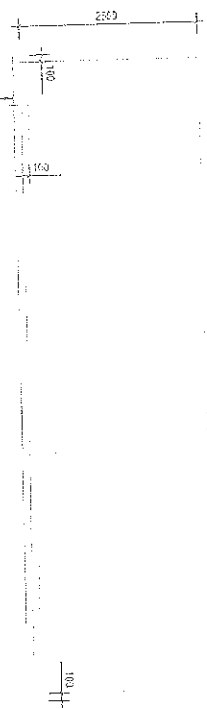


COLUMN DIMENSIONS AT PILE CAP TOP ELEVATION



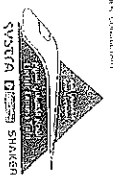
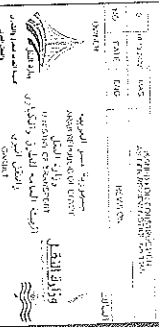
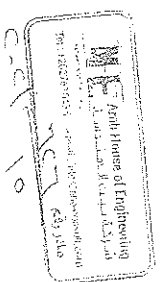
SECTION A-A

100mm BLINDING CONCRETE FOR GRADE SEE NOTES



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. REINFORCEMENT SHALL BE AS SPECIFIED IN THE DRAWINGS.
3. THE REINFORCEMENT SHALL BE PLACED AS SHOWN IN THE DRAWINGS.
4. THE REINFORCEMENT SHALL BE PLACED AS SHOWN IN THE DRAWINGS.
5. THE REINFORCEMENT SHALL BE PLACED AS SHOWN IN THE DRAWINGS.
6. THE REINFORCEMENT SHALL BE PLACED AS SHOWN IN THE DRAWINGS.
7. THE REINFORCEMENT SHALL BE PLACED AS SHOWN IN THE DRAWINGS.
8. THE REINFORCEMENT SHALL BE PLACED AS SHOWN IN THE DRAWINGS.
9. THE REINFORCEMENT SHALL BE PLACED AS SHOWN IN THE DRAWINGS.
10. THE REINFORCEMENT SHALL BE PLACED AS SHOWN IN THE DRAWINGS.



FHECOR Ingenieros Consultores



REGIONAL DIRECTOR OF PUBLIC WORKS AND URBAN PLANNING

REGIONAL DIRECTOR OF PUBLIC WORKS AND URBAN PLANNING

NOTES:

1. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.
2. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.
3. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.
4. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.
5. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.
6. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.
7. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.
8. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.
9. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.
10. ALL DIMENSIONS GIVEN IN PARENTHESIS ARE APPROXIMATE.

LEGEND

- 1. 50' DIA. BARS
- 2. 10' DIA. BARS
- 3. 10' DIA. BARS
- 4. 10' DIA. BARS
- 5. 10' DIA. BARS
- 6. 10' DIA. BARS
- 7. 10' DIA. BARS
- 8. 10' DIA. BARS
- 9. 10' DIA. BARS
- 10. 10' DIA. BARS

W FHECOR
Ingenieros Consultores

W FHECOR
Ingenieros Consultores

W FHECOR
Ingenieros Consultores

W FHECOR
Ingenieros Consultores

W FHECOR
Ingenieros Consultores

W FHECOR
Ingenieros Consultores

W FHECOR
Ingenieros Consultores

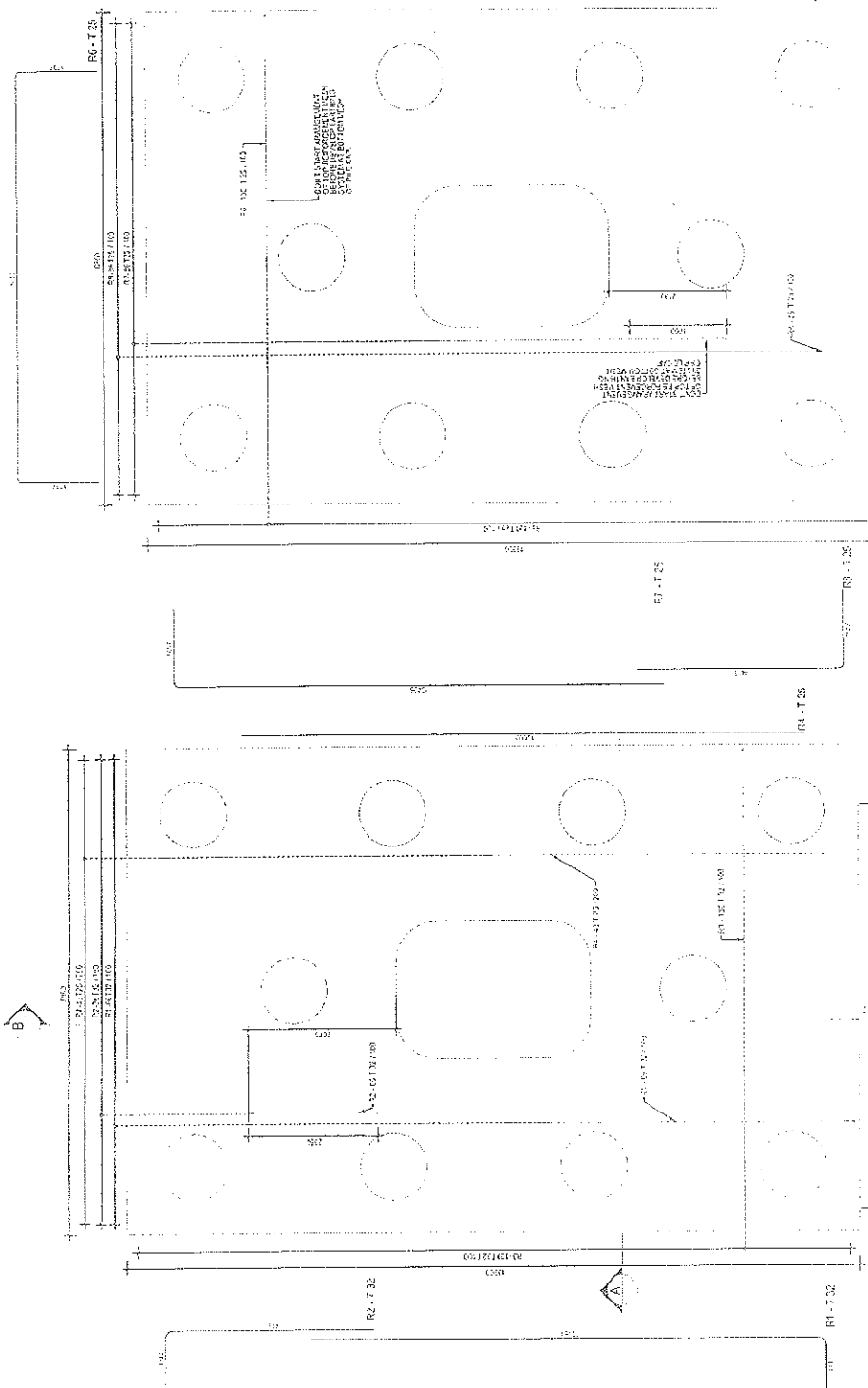
W FHECOR
Ingenieros Consultores

W FHECOR
Ingenieros Consultores

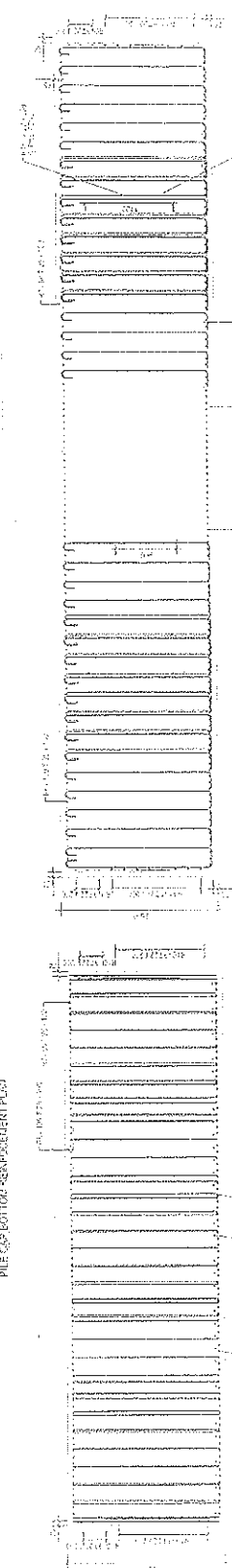


W FHECOR
Ingenieros Consultores

W FHECOR
Ingenieros Consultores



PLAN OF REINFORCEMENT



SECTION B

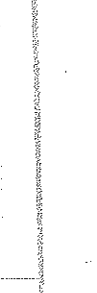
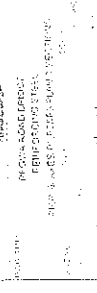
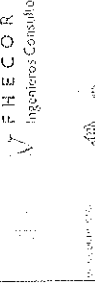
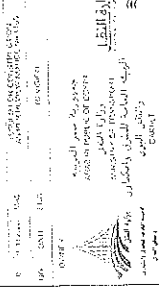
SECTION A

NOTES

1. ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN METERS.
2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
3. CONCRETE SHALL BE OF GRADE C25.
4. REINFORCEMENT SHALL BE OF GRADE 420.
5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
6. REINFORCEMENT SHALL BE OF GRADE 420.
7. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
8. REINFORCEMENT SHALL BE OF GRADE 420.
9. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
10. REINFORCEMENT SHALL BE OF GRADE 420.

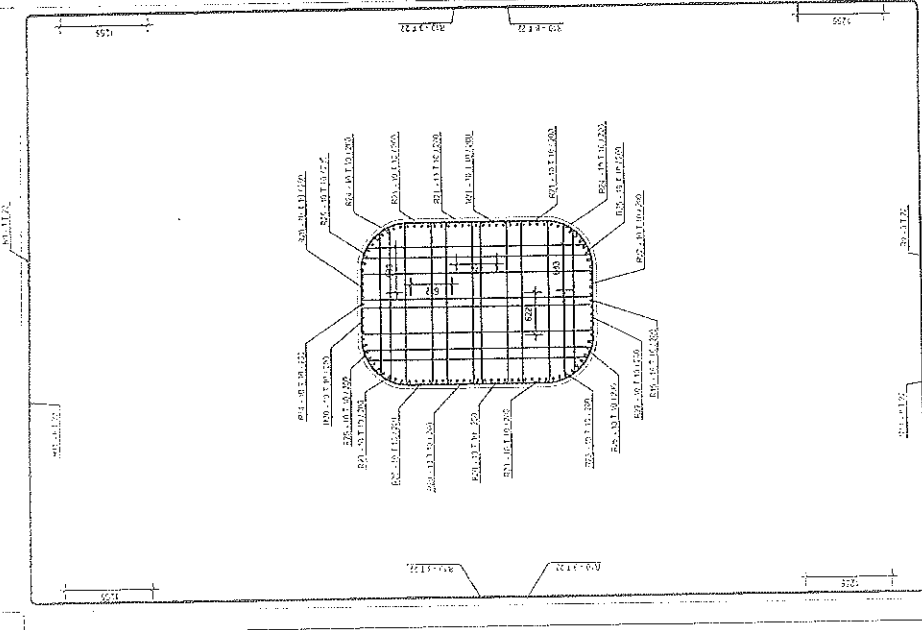
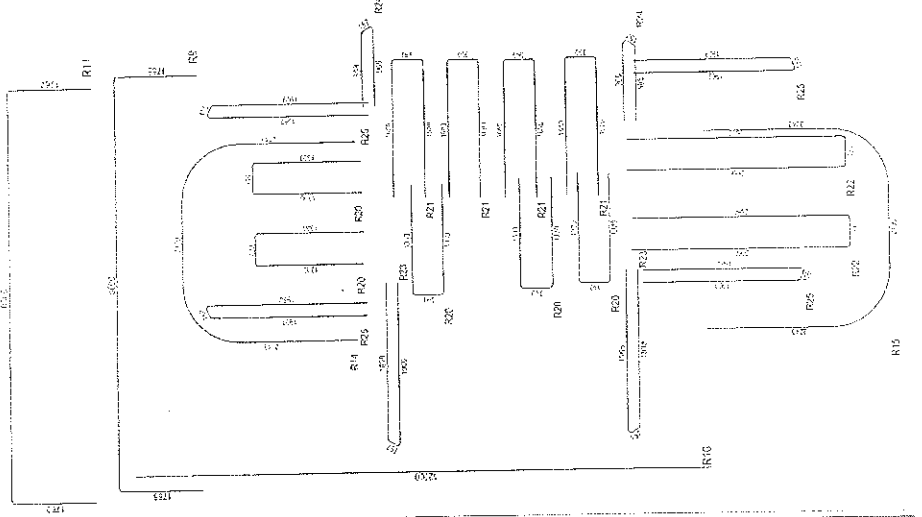
LEGEND

1. RECTANGLES
2. CIRCLES
3. TRIANGLES
4. SQUARES
5. DIAMONDS
6. OTHERS
7. OTHERS
8. OTHERS
9. OTHERS
10. OTHERS

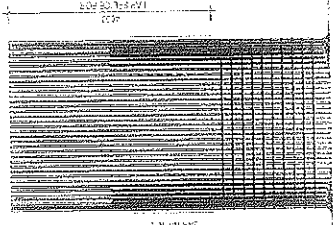


REBAR BENDING SCHEDULE

Bar Mark	Size	Qty.	Length	Weight	Bar Shape
R1	25	43	1033.7	46.25	1033.7
R10	22	32	1500	35.91	797.2
R1	32	86	12000	75.77	6516.0
R2	32	86	5500	34.73	2886.5
R3	32	120	12000	75.77	9016.8
R6	25	130	12000	46.25	9012.2
R7	25	66	12000	46.25	3077.3
R8	25	66	6000	23.12	5887.1
R9	22	8	12000	35.81	214.8
R11	22	16	12000	35.81	572.9
R12	22	86	5000	31.57	2770.2
R13	32	90	7050	41.20	3977.8
R14	16	10	6000	0.47	91.7
R15	16	10	6000	0.47	91.7
R16	22	86	2000	5.97	3342.7
R17	22	450	2200	6.57	3378.1
R18	16	1040	2000	3.10	3310.6
R19	16	1040	1700	2.71	2817.0
R20	16	80	2000	1.85	111.1
R21	16	40	1700	2.25	91.3
R22	16	20	5600	1.40	40.3
R23	16	20	4000	1.47	48.4
R24	16	20	2000	1.25	24.7
R25	16	40	1900	2.67	50.7



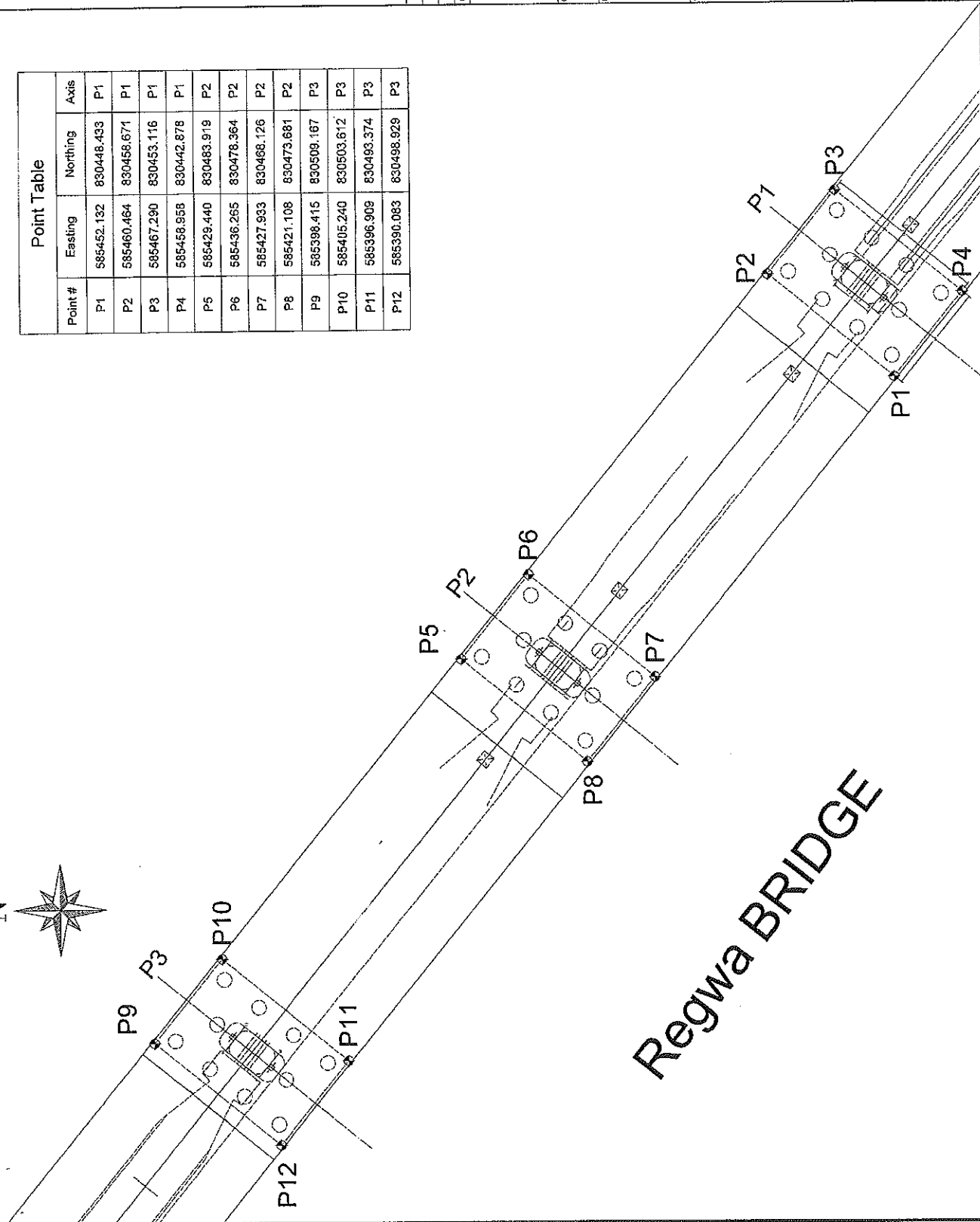
BEST COPY AVAILABLE



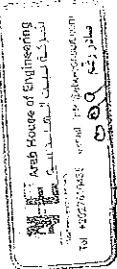
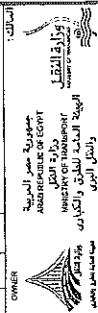
SIDE PARS & COLUMN TIES PLAN

COLUMN STARTER BARS SECTIONAL REINFORCEMENT

Point Table			
Point #	Easting	Northing	Axis
P1	585452.132	830448.433	P1
P2	585460.464	830458.671	P1
P3	585467.290	830453.116	P1
P4	585458.958	830442.878	P1
P5	585429.440	830483.919	P2
P6	585436.265	830478.364	P2
P7	585427.933	830468.126	P2
P8	585421.108	830473.681	P2
P9	585398.415	830508.167	P3
P10	585405.240	830503.612	P3
P11	585396.909	830493.374	P3
P12	585390.083	830498.929	P3



NEVECOR
Ingenieros Consultores

[illegible]

NAME OF PROJECT: ELECTRICAL EXPENSE FUND (HIGH SPEED RAIL)
DECTION THREE (FROM WEST OF N.E. TO ALABAMA)

PLANS OF OTHER CONSULTANTS:



THE UNIVERSITY OF CHICAGO



FHECOR 
Ingenieros Consultores

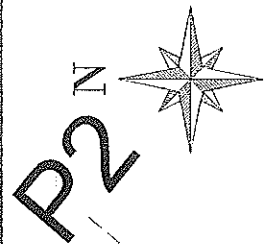


MAIN CONTRACTOR:

DWG. TITLE: FOUNDATION COORDINATES
AT REGINA BRIDGE

DATE	1/10/2022	TOTAL	£ 100
DRAWING BY:	CHECKED BY:		
E Ag Shulab Alsa	Eng. Muneer Saleh		
	16/1/22		
SUPERVISOR:		APPROVED BY:	
Eng. Ashwood Lathoo		Eng. Jwan Torice	

NOTES:



FHECOR
Ingenieros Consultores

Arab House of Engineering
شركة بيتك الهندسة
Tél: +9027415435 e-mail: info@aheng.com
مشاريع: ١٥

NO.	DATE	REV.	FOR SUBMITTAL
00	12/2007	K.A	REVISION

OWNER
MINISTRY OF TRANSPORT
الهيئة العامة للطرق والكباري
البنية التحتية
البنية التحتية
البنية التحتية

NAME OF PROJECT
ELECTRICAL EXPANSION TRAIN HIGH SPEED RAIL
SECTION THREE FROM WEST OF NILE TO ALASHRAH

NAME OF OWNER CONSULTANT

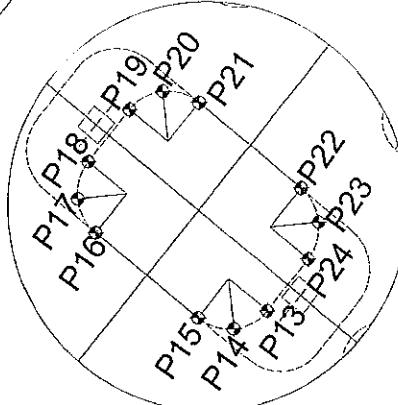
NAME OF CONTRACTOR CONSULTANT
SWSCA (SUDAN) SHARAF

FHECOR
Ingenieros Consultores

TRAIN CONTRACTOR

DRAWING TITLE COLUMNS COORDINATES AT REGWA BRIDGE	
STATUS	DATE
DESIGNED BY	12/2007
CHECKED BY	12/2007
DATE	12/2007
DATE	12/2007
SUPERVISOR	APPROVED BY
DR. HANNAH EL-KHAYAT	DR. JAWAD TAYEB

Point Table			
Point #	Easting	Northing	Axis
P13	585427.194	830474.981	P2
P14	585426.921	830475.486	P2
P15	585427.085	830476.036	P2
P16	585428.348	830477.587	P2
P17	585428.853	830477.860	P2
P18	585429.403	830477.696	P2
P19	585430.179	830477.064	P2
P20	585430.451	830476.559	P2
P21	585430.287	830476.009	P2
P22	585429.025	830474.458	P2
P23	585428.519	830474.185	P2
P24	585427.969	830474.350	P2

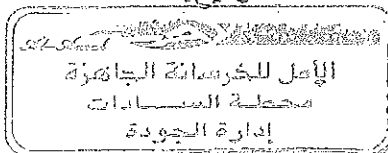


**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS**
BS 4881 : PART 4 : 1999

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMENT : Pier 2
Dimension : 15*15*15 cm
Date of casting : 04/03/2023
MIX DESIGN STRENGTH : 500 kg/cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	04/03/2023	09/04/2023	28	8.516	142100	632	621
2	04/03/2023	09/04/2023	28	8.338	124500	553	
3	04/03/2023	09/04/2023	28	8.491	137400	611	
4	04/03/2023	09/04/2023	28	8.578	142300	632	
5	04/03/2023	09/04/2023	28	8.738	125600	558	
6	04/03/2023	09/04/2023	28	8.768	135200	601	
7	04/03/2023	09/04/2023	28	8.602	147600	656	
8	04/03/2023	09/04/2023	28	8.487	148600	660	
9	04/03/2023	09/04/2023	28	8.422	154100	685	

التوقيع:



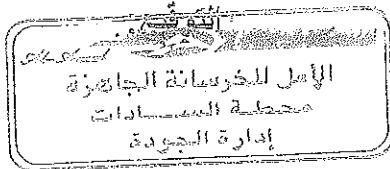
Handwritten signatures and initials.

Handwritten signature and initials.

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1993**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMENT : F2
Dimension : 15*15*15 cm
Date of casting : 04/03/2023
MIX DESIGN STRENGTH : 500 kg / cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	04/03/2023	11/03/2023	7	8.443	133900	595	516
2	04/03/2023	11/03/2023	7	8.783	99600	443	
3	04/03/2023	11/03/2023	7	8.504	127500	567	
4	04/03/2023	11/03/2023	7	8.664	120400	535	
5	04/03/2023	11/03/2023	7	8.561	124200	552	
6	04/03/2023	11/03/2023	7	8.467	114500	509	
7	04/03/2023	11/03/2023	7	7.436	118500	527	
8	04/03/2023	11/03/2023	7	8.506	115200	512	
9	04/03/2023	11/03/2023	7	8.581	91800	408	



ع

[Signature]

[Signature]

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District

New City/Telefax: 02 23573367 - 02 24713558

Mobile: 0110116717

Workshop : New Cairo - Katamia - Port 82 - 83

Tel: 29841185 / Fax: 29840109

01227655398 - 01068831170 - 01006033856

At Saida City - Saida-Gold Zone (7) - Port 89

01003385398 - 01003385398

01003385398 - 01003385398

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District

New City/Telefax: 02 23573367 - 02 24713558

Mobile: 0110116717

Workshop : New Cairo - Katamia - Port 82 - 83

Tel: 29841185 / Fax: 29840109

01227655398 - 01068831170 - 01006033856

At Saida City - Saida-Gold Zone (7) - Port 89

01003385398 - 01003385398

01003385398 - 01003385398

REQUEST



Contractor Company			Designer Company		
Issued by Contractor	Name	Sign	Date	Time	
Received by ER		محرم باخوم	10/1/2023		
Contractor Reference	النيل العامة		CON	C1	C2
				C3	DD
				MM	YY
				HH	MM

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity : Receiving Steel Rienforcement,carpentry and Surveying works For Footing P3		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km/to 189+680 Km (footing P (3))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: kg/cm^2			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	290 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

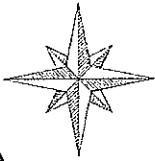
Item	Document No	Revision	Title	Number of Sheets
1			Steel Rienforcement Shop drawing for footing P3	
2			Footing COORDINATES	
3			Column COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammed Gardoun		10/1/2023	A

NOTES:

P3 N



Point Table

Point #	Easting	Northing	Axis
P25	585396.169	830500.229	P3
P26	585395.896	830500.734	P3
P27	585396.061	830501.284	P3
P28	585397.323	830502.836	P3
P29	585397.828	830503.108	P3
P30	585398.379	830502.944	P3
P31	585399.154	830502.313	P3
P32	585399.427	830501.808	P3
P33	585399.262	830501.258	P3
P34	585398.000	830499.706	P3
P35	585397.495	830499.433	P3
P36	585396.945	830499.598	P3

FHECOR
Ingenieros Consultores

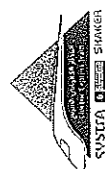
Arab House of Engineering
شركة بيت الهندسة
P.O. Box 11455, Jeddah 21511, Saudi Arabia
T: +966 2 771 11455 F: +966 2 771 11455
E: info@aheng.com.sa
www.aheng.com.sa

صندوق رقم ١١٤٥٥
جدة ٢١٥١١
السعودية

FOR SUBMITTAL	
NO.	REVISION

مملكة العربية السعودية
وزارة النقل
Ministry of Transport
الهيئة العامة للطرق والجسور
General Authority of Roads and Bridges
جاءة رقم ١١٤٥٥
جدة ٢١٥١١
السعودية

NAME OF PROJECT
ELECTRICAL SUPPLY FOR HIGH SPEED RAIL
SECTION THREE PROJECT OF RAIL TO JEDDAH II
NAME OF OWNER CONSULTANT

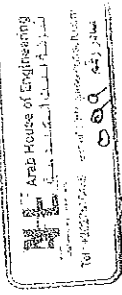


NAME OF CONTRACTOR CONSULTANT
FHECOR
Ingenieros Consultores



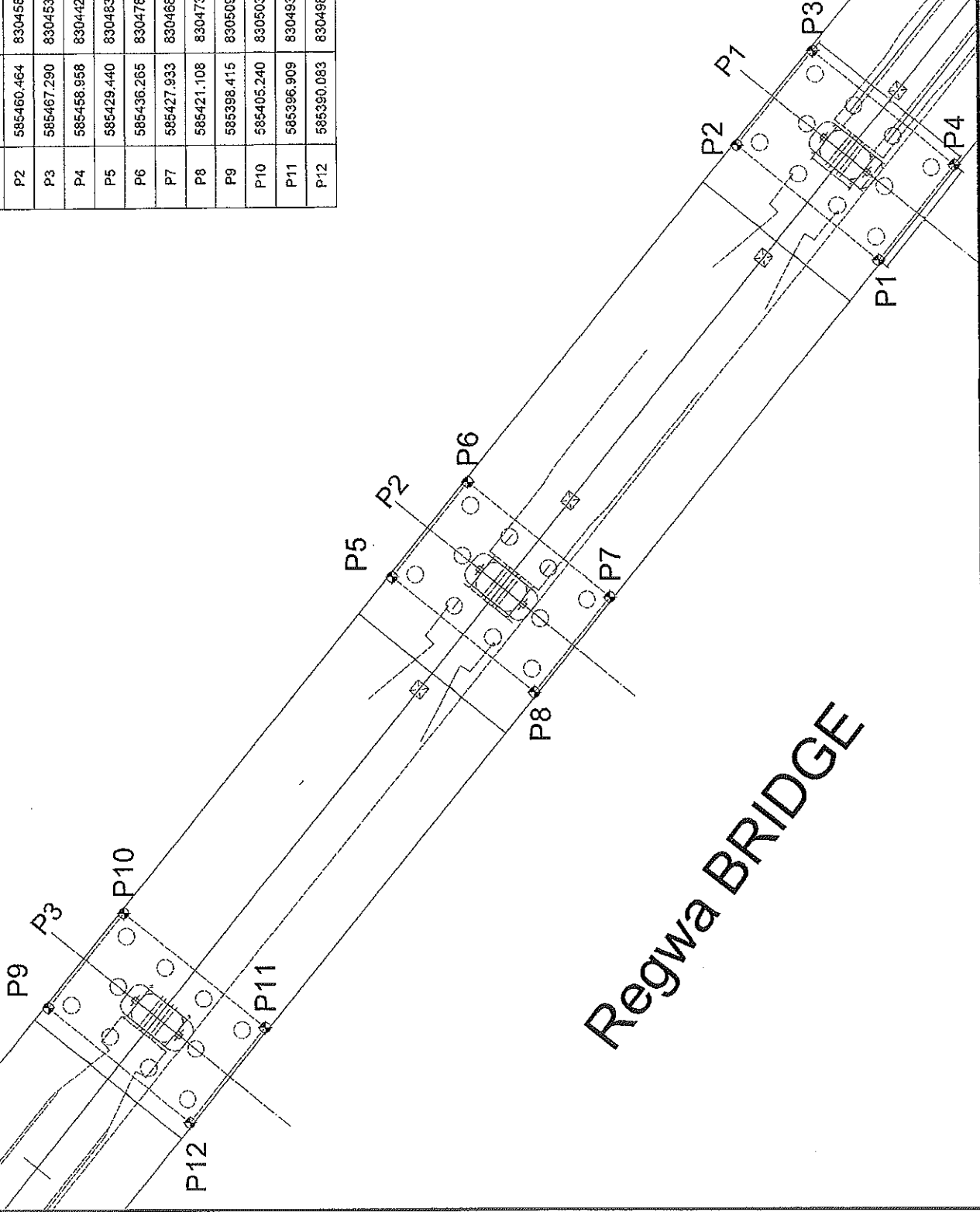
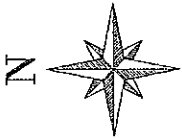
DRAWING TITLE	
COLUMNS COORDINATES AT REGINA BRIDGE	
DWG NO.	10000
DATE	10/03/2010
DESIGNED BY	ENG. N.A.
CHECKED BY	ENG. N.A.
APPROVED BY	
DATE	
BY	

NOTES:



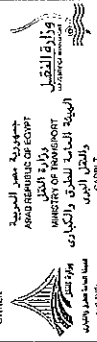
10

Point Table			
Point #	Easting	Northing	Axis
P1	585452.132	830448.433	P1
P2	585460.464	830458.671	P1
P3	585467.290	830453.116	P1
P4	585458.958	830442.878	P1
P5	585429.440	830483.919	P2
P6	585436.265	830478.364	P2
P7	585427.933	830468.126	P2
P8	585421.108	830473.681	P2
P9	585398.415	830509.167	P3
P10	585405.240	830503.612	P3
P11	585396.909	830493.374	P3
P12	585390.083	830498.929	P3



Regwa BRIDGE

NO.	DATE	ENG.	REVISION



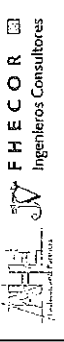
OWNER:
ARAB REPUBLIC OF EGYPT
MINISTRY OF TRANSPORT
MINISTRY OF PLANNING
GOVERNMENT OF EGYPT

NAME OF PROJECT:
ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF NILE TO ALAMANA)

NAME OF OWNER CONSULTANT:



NAME OF CONTRACTOR CONSULTANT:



NAME OF CONTRACTOR:

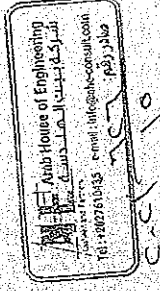


FOUNDATION COORDINATES
AT REGWA BRIDGE

DESIGNER:	DATE:	SCALE:
DESIGNED BY:	CHECKED BY:	1:100
DATE:	DATE:	DATE:
SUPERVISOR:	APPROVED BY:	APPROVED BY:
DATE:	DATE:	DATE:

NOTES:

- 1- ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN MILLIMETERS. ALL ELEVATIONS & COORDINATES ARE SHOWN IN METERS.
- 2- FOR PROJECT GENERAL NOTES
- 3- FOR PIER & CONCRETE PILING SECTION, SEE DRAWING NO. HSE-400-CC-001-PIE-001
- 4- FOR PIER & CONCRETE PILING SECTION, SEE DRAWING NO. HSE-400-CC-001-PIE-002
- 5- FOR PIER & CONCRETE PILING SECTION, SEE DRAWING NO. HSE-400-CC-001-PIE-003
- 6- FOR PIER & CONCRETE PILING SECTION, SEE DRAWING NO. HSE-400-CC-001-PIE-004
- 7- FOR PIER & CONCRETE PILING SECTION, SEE DRAWING NO. HSE-400-CC-001-PIE-005
- 8- FOR REINFORCING STEEL SEE DWG NO. HSE-400-CC-001-PIE-006



NO.	DATE	DESCRIPTION	BY	CHKD.	APPD.
1	10/10/2022	ISSUED FOR CONSTRUCTION	...	...	...

NAME OF PROJECT: ELECTRONIC EXPRESS TRAIN HIGH SPEED RAIL
SECTION THREE (FROM WEST OF FILE TO EAST)

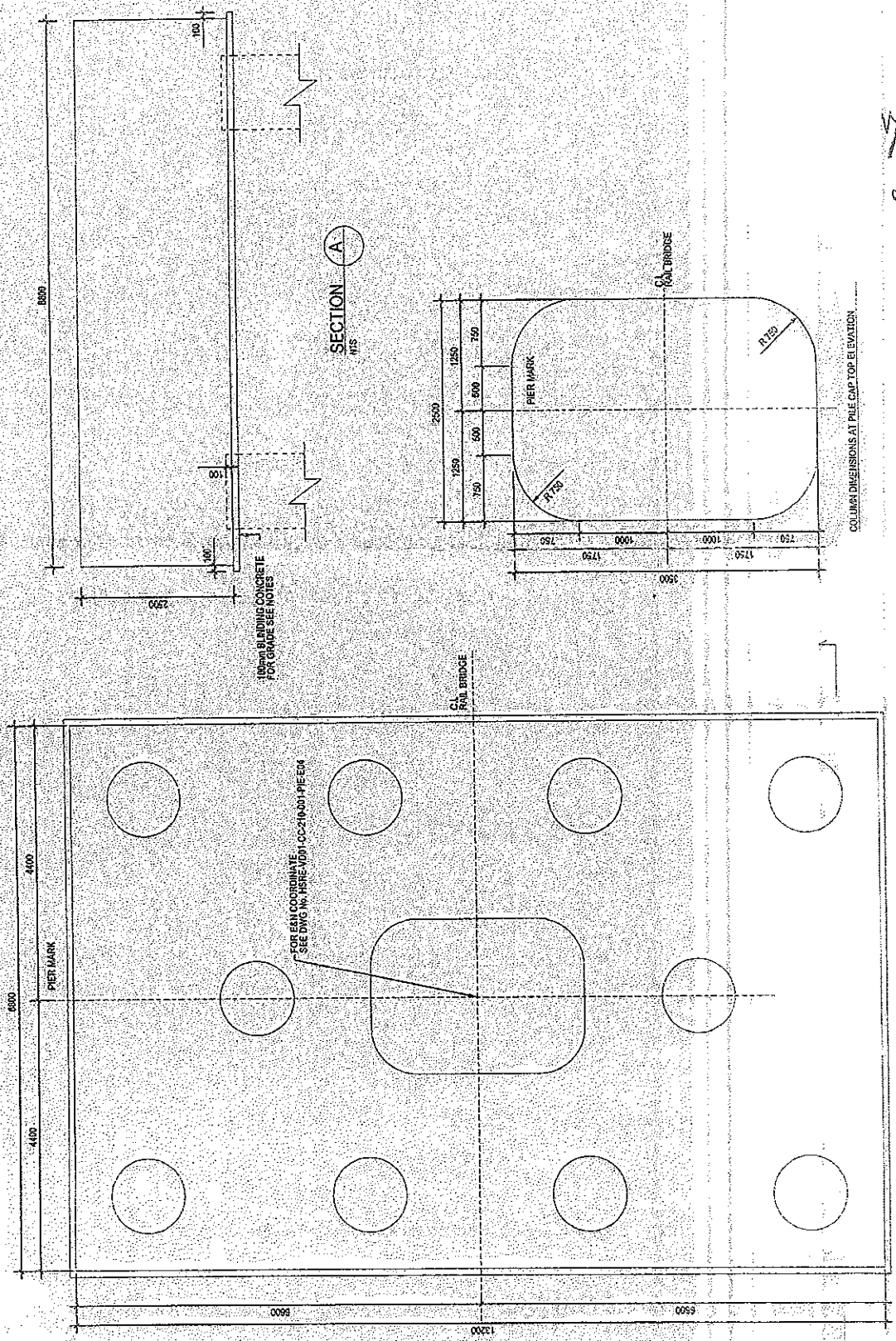
NAME OF OWNER: CONSULTANT

NAME OF CONTRACTOR: SHAKER

NAME OF CONSULTANT: FHECOR Ingenieros Consultores



NO.	DATE	DESCRIPTION	BY	CHKD.	APPD.
1	10/10/2022	ISSUED FOR CONSTRUCTION	...	...	...



PILE CAP TYPE 1 PLAN

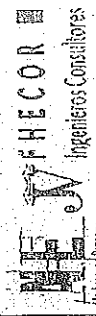
23/10/2022

NOTES:

1. ALL DIMENSIONS SHOWN IN THIS DRAWING ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
4. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
6. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
7. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
8. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
9. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
10. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.

LEGEND:

- 1. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 4. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 6. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 7. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 8. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 9. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.
- 10. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.



NO.	DESCRIPTION	UNIT	QUANTITY	PRICE	TOTAL
1	CONCRETE	m³	100.00	100.00	100.00
2	STEEL	kg	1000.00	1000.00	1000.00
3	LABOR	hrs	1000.00	1000.00	1000.00
4	EQUIPMENT	hrs	1000.00	1000.00	1000.00
5	MATERIALS	kg	1000.00	1000.00	1000.00
6	TRANSPORT	km	1000.00	1000.00	1000.00
7	OVERHEADS	%	1000.00	1000.00	1000.00
8	PROFIT	%	1000.00	1000.00	1000.00
9	TOTAL				



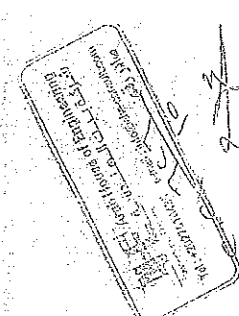
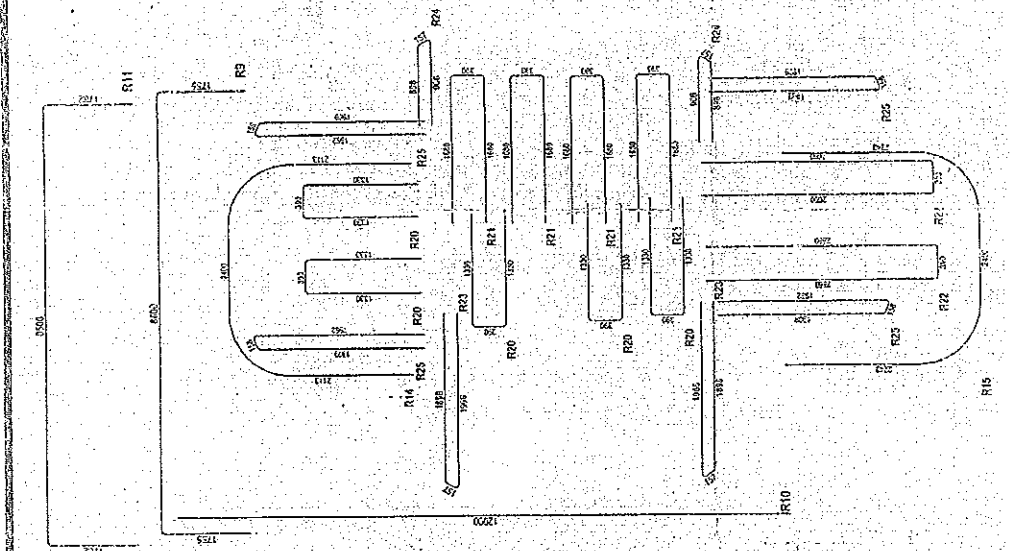
WHECOR Ingenieros Consultores



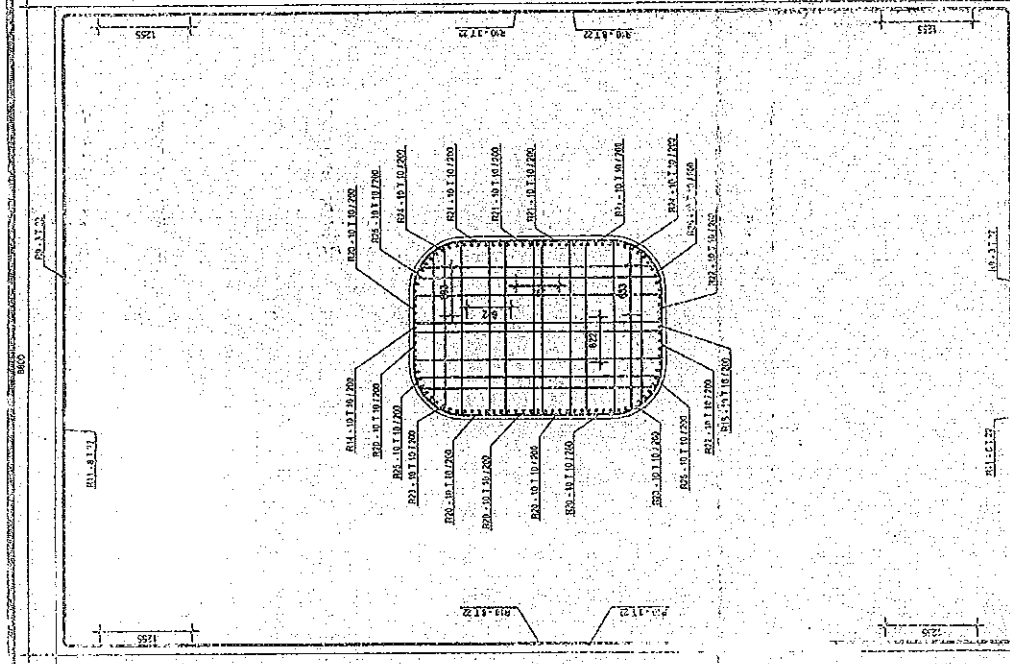
NO.	DESCRIPTION	UNIT	QUANTITY	PRICE	TOTAL
1	CONCRETE	m³	100.00	100.00	100.00
2	STEEL	kg	1000.00	1000.00	1000.00
3	LABOR	hrs	1000.00	1000.00	1000.00
4	EQUIPMENT	hrs	1000.00	1000.00	1000.00
5	MATERIALS	kg	1000.00	1000.00	1000.00
6	TRANSPORT	km	1000.00	1000.00	1000.00
7	OVERHEADS	%	1000.00	1000.00	1000.00
8	PROFIT	%	1000.00	1000.00	1000.00
9	TOTAL				

REBAR BENDING SCHEDULE

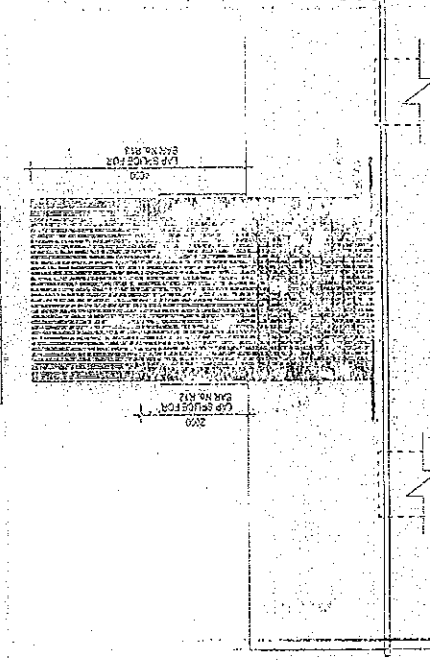
Bar Mark	Size	Qty.	Length	Weight	Bar Shape
R1	25	40	12000	15.25	15.25
R2	25	40	12000	15.25	15.25
R3	25	40	12000	15.25	15.25
R4	25	40	12000	15.25	15.25
R5	25	40	12000	15.25	15.25
R6	25	40	12000	15.25	15.25
R7	25	40	12000	15.25	15.25
R8	25	40	12000	15.25	15.25
R9	25	40	12000	15.25	15.25
R10	25	40	12000	15.25	15.25
R11	25	40	12000	15.25	15.25
R12	25	40	12000	15.25	15.25
R13	25	40	12000	15.25	15.25
R14	25	40	12000	15.25	15.25
R15	25	40	12000	15.25	15.25
R16	25	40	12000	15.25	15.25
R17	25	40	12000	15.25	15.25
R18	25	40	12000	15.25	15.25
R19	25	40	12000	15.25	15.25
R20	25	40	12000	15.25	15.25
R21	25	40	12000	15.25	15.25
R22	25	40	12000	15.25	15.25
R23	25	40	12000	15.25	15.25
R24	25	40	12000	15.25	15.25
R25	25	40	12000	15.25	15.25



Bar Bending Schedule to be checked



SIDE BARS & COLUMN TIES PLAN

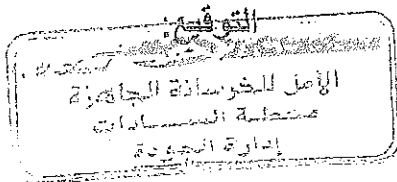


COLUMN STARTER BARS SECTION ELEVATION

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطر الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : قاعدة P3
Dimension : 15*15*15 cm
Date of casting : 10/01/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	10/01/2023	07/02/2023	28	8.568	124600	554	596
2	10/01/2023	07/02/2023	28	8.464	133000	591	
3	10/01/2023	07/02/2023	28	8.615	137000	609	
4	10/01/2023	07/02/2023	28	8.607	122300	544	
5	10/01/2023	07/02/2023	28	8.615	134700	599	
6	10/01/2023	07/02/2023	28	8.623	134200	596	
7	10/01/2023	07/02/2023	28	8.445	141000	627	
8	10/01/2023	07/02/2023	28	8.565	138300	615	
9	10/01/2023	07/02/2023	28	8.604	142300	632	



Signature

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : قاعدة P3
Dimension : 15*15*15 cm
Date of casting : 10/01/2023
MIX DESIGN STRENGTH : 500 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	10/01/2023	17/01/2023	7	8.273	96030	427	430
2	10/01/2023	17/01/2023	7	8.512	98360	437	
3	10/01/2023	17/01/2023	7	8.498	95110	423	
4	10/01/2023	17/01/2023	7	8.504	88110	392	
5	10/01/2023	17/01/2023	7	8.597	94680	421	
6	10/01/2023	17/01/2023	7	8.527	108600	483	
7	10/01/2023	17/01/2023	7	8.443	94170	419	
8	10/01/2023	17/01/2023	7	8.388	94970	422	
9	10/01/2023	17/01/2023	7	8.519	100900	448	

التوقيع
الإمام الخرسانة الجاهزة
مصلحة المسحقات
أمانة المصنوع

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nesr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01003468673 - 01006880835 - 01004976497

الإدارة
عول إيجيبت ميديكال سنتر - الدور الرابع - ش. د. شيمي - المنطقة الإدارية
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - المنطقة قطمة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مبوبة السماعات - المنطقة الصناعية الجديدة قطمة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٨٣٥ - ٠١٠٦٨٤٠٩٦٧١

Email: info@alamal.com

Data Records

Date:	11/11/2023
Project Name:	مشروع القطار الكهربائي السريع (كوسموس ريسجوا)
Customer:	شركة النقل العام الطرق والكبار
Location:	كوسموس ريسجوا (مقابلة 3)
C.No.:	

	Temp °C	TC#1	TC#2	TC#3	TC#4	TC#5	TC#6	TC#7	TC#8	TC#9
2:00 AM	15.5	412	46.9	20.5	41.7	41.3	24.6	29.9	48.8	23.8

Temp °C	TC#1	TC#2	TC#3	TC#4	TC#5	TC#6	TC#7	TC#8	TC#9
22.2	31	57.5	32	49.1	53.8	30.5	33	58.2	37.3

12/1/2023

	Temp -0C	TC#1	TC#2	TC#3	TC#4	TC#5	TC#6	TC#7	TC#8	TC#9
Spool A	17.9	53.6	73.2	54.5	59.2	73	50	58.8	73.6	53.8

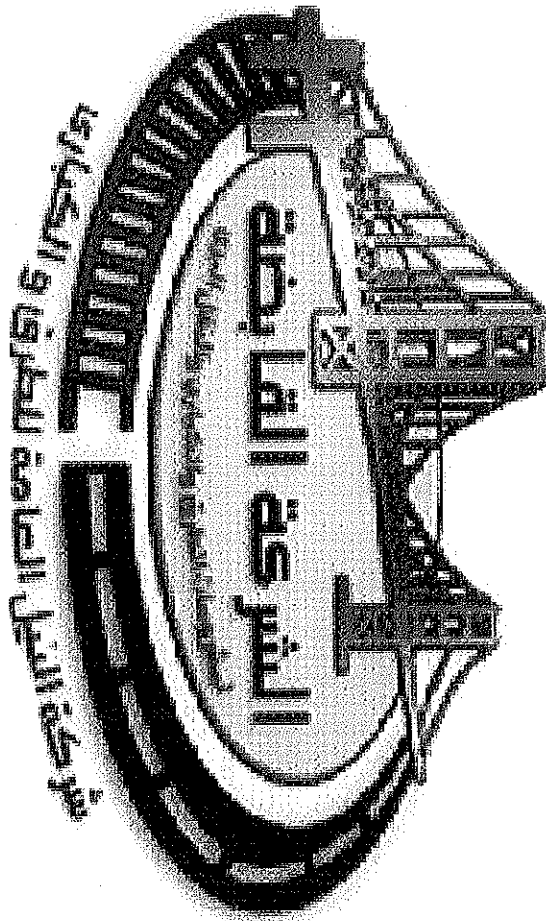
	TP	TC#1	TC#2	TC#3	TC#4	TC#5	TC#6	TC#7	TC#8	TC#9
5000A	19.4	53	71.2	52.7	57.9	73.8	44	61.2	73.4	55.4

Customer Representative

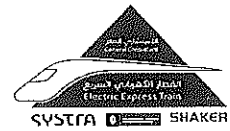
روغائیل رو

REQ

P3 FOOTING REGWA



REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name <i>Ahmed Adel</i>	Sign <i>[Signature]</i>	Date 22 / 2 / 2023	Time							
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity :		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P1 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 370 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Ahmed Adel</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>Mohammed Gaidoun</i>	<i>[Signature]</i>		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	22 / 2 / 2023
Pile No.	p1	Structure	bridge	Pile Cutoff Level	—
pier	p1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.141	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.671
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.341

Pile Survey

Coordinates	EAST	North
Theoretical	585465.602	830452.943
Actual	585465.621	830452.926
Δ	-0.019	0.017

Bentonite Slurry Test

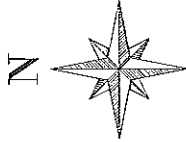
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.6 %

Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

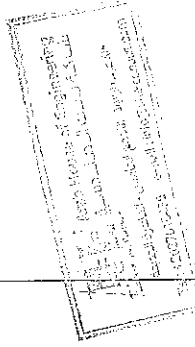
Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	22/2/2023			Cleaning	—	—	—
Install Cages	22/2/2023			pouring	22/2/2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	21	20.5	21.5	22	22.5		
Temperature	29	28	31	29.5	31.8		



NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON E.T.M (EGYPTIAN TRANSVERSE)
MERIDIAN) AS PER THE RECEIVED SITE SURVEY.



NO.	DATE	ENG.	ISSUED FOR CONSTRUCTION	REASON
00	06/2022	N/A		
01				
02				

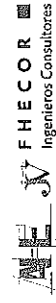
OWNER:
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للطرق والكباري
General Authority of
Roads and Bridges
DABUT

NAME OF PROJECT:
RECONSTRUCTION OF THE HIGH SPEED RAIL
SECTION THREE (FROM AGEI TO ALAMAR)

NAME OF OWNER CONSULTANT:



NAME OF CONTRACTOR CONSULTANT:

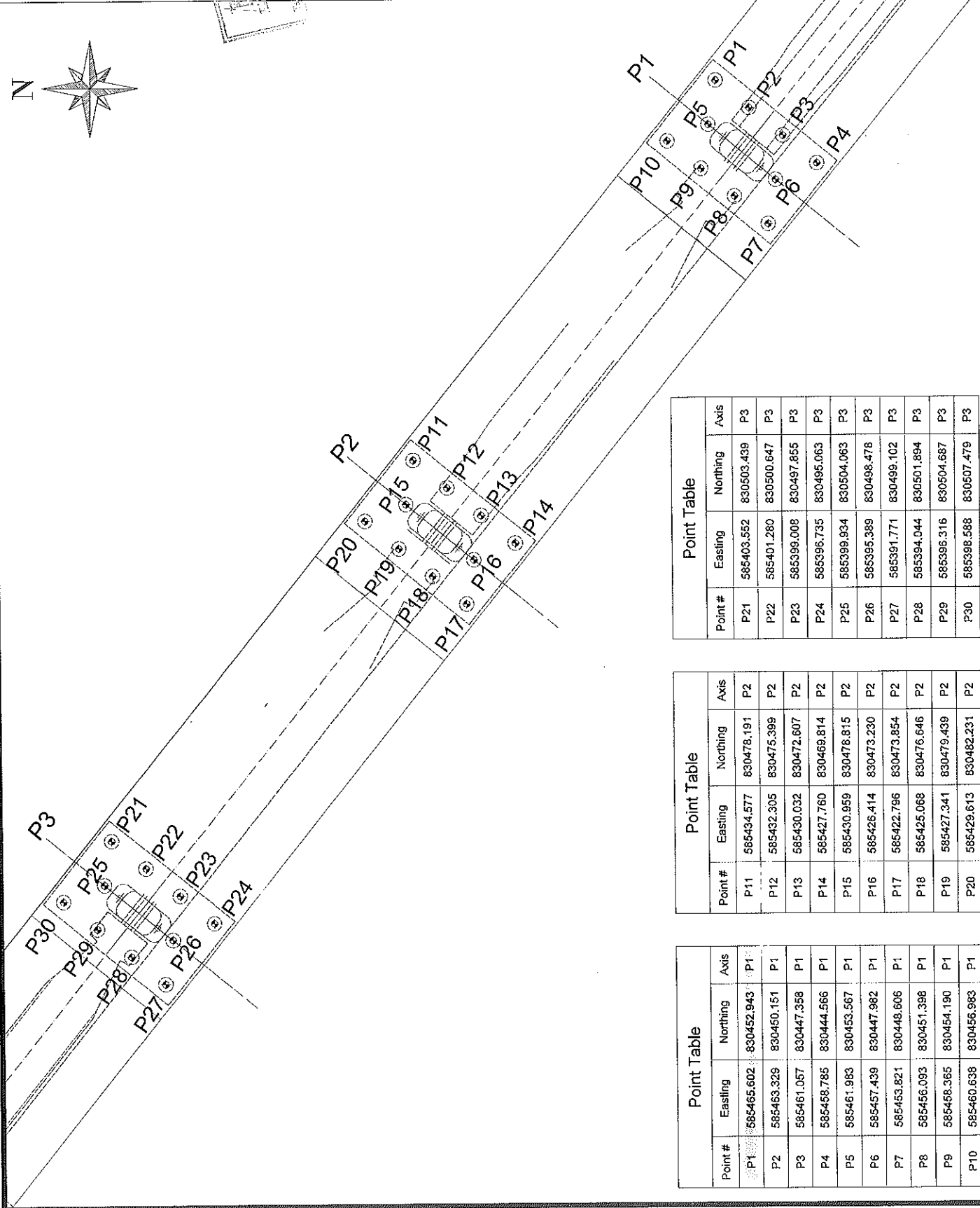


MAIN CONTRACTOR:



DWG TITLE:
RECONSTRUCTION OF THE HIGH SPEED RAIL
PILES COORDINATES FOR APPROVED AXIS
FROM P1 - P3

DATE	SCALE
06/2022	1 : 150
DESIGNED BY: Eng. Mohamed Salah	CHECKED BY:
SUPERVISOR:	APPROVED BY:
DR. Mohamed Lashin	Eng. Jaber Turco



Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830493.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

[illegible]

ABREVIATION:

-T.O.A = Top of Asphalt
-T.O.C = Top of Column
-T.O.P = Top of Pile Cap/Pile
-T.O.B = Top of Bearing
-T.O.F = Top of Frame
-N.G.L = Normal Ground Level

REGINA ROAD BRIDGE	REGINA ROAD BRIDGE
GENERAL NOTES	SUBSTRUCTURE
ADDENDUM 1, DEFINITION	PIERS #1 P2, P3, REINFORCEMENT

Arab House of Engineering
مركز البحوث الهندسية العربية
Tel. +977613455 e-mail: info@arabhouse.com
www.arabhouse.com

NO.	DATE	ENG.	REVISION	NOTICE NO. 1449	CONSTRUCTION AS PER REVIEW
-----	------	------	----------	-----------------	----------------------------


 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 المديرية العامة للنقل والكابري
 والنقل البري
 ONRHLT
 قسمة العامة للنقل والكابري
 ج.م.ع.

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF NILE TO AL-JANA)

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

COEFFICIENT OF CONTRACTION CONSTANT:

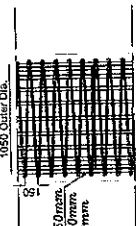
AF
FHECOR
Ingenieros Consultores



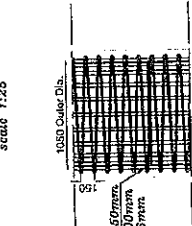
DWG. TITLE:
REGWA ROAD BRIDGE
PILES AT AXES (P1, P2&P3)
PILE REINFORCEMENT BARS SHOW

DWG NO.:	DATE:
PROJECT NO. 50-110-103-P11-500	08-2022
DRAWING BY:	CHECKED BY:
ENG. Fadi Hany	ENG. Abdulrahman Momen

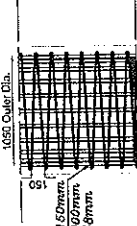
4	SUPERVISOR
	DR. Maheshwari Lachman

[illegible]

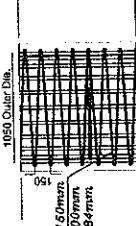
⑦5 Helical S.L.P=150mm
4#16 L=1200mm
1#16 L=3096mm



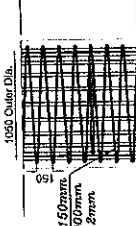
①6 Helical St. P=150mm
1316 L=1200mm
1016 L=6576mm



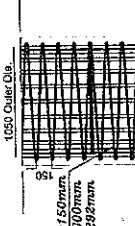
07 Helical St. P=150mm
5#12 L=12000mm
1#12 L=4848mm



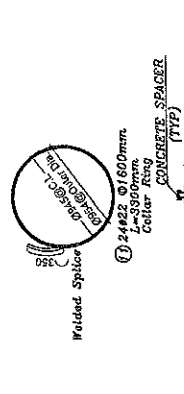
08 Helical St. P=150mm
19612 L=12000mm
1#12 L=10584mm



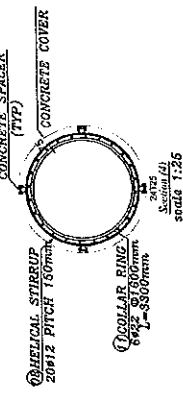
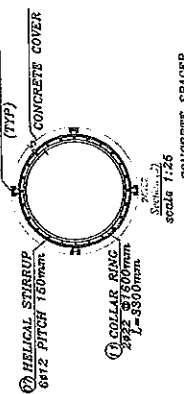
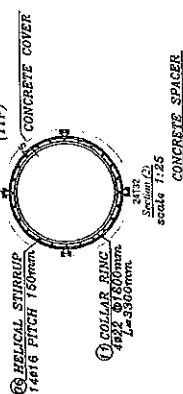
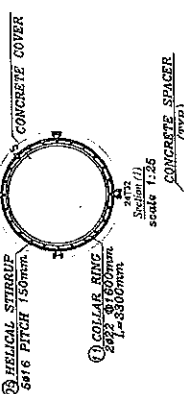
⑧ Helical St. P=150mm
2012 L=1200mm



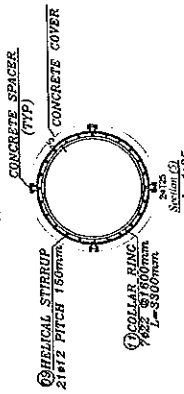
⑩ Helical St. $P=150\text{mm}$
 9412 $L=1200\text{mm}$
 1412 $L=11292\text{mm}$



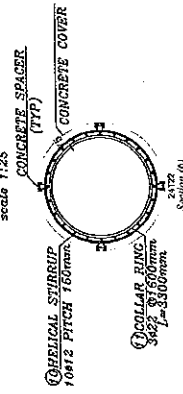
⑪ 24#22 @1600mm
L=3900mm
Collar Ring



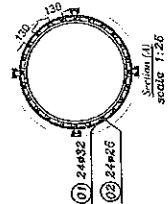
ING



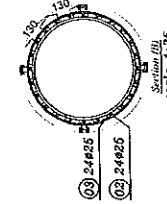
10mm
1mm



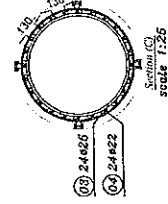
RING



⑩ 24032



⑨ 24025



② 24025

BAR MARK	BAR DIA.	SYMBOL(mm)	NUMBER QTY	LENGTH (mm)	TOTAL WEIGHT (Kg)
01	32	12000	24	12000	1820.44
02	25	12000	24	12000	1111.11
03	25	12000	24	12000	1111.11
04	22	6400	24	6400	458.90
05	16	12000	4+1	12000 + 3096	75.85 + 4.89
06	16	12000	13+1	12000 + 6576	246.51 + 10.39
07	12	12000	5+1	12000 + 4848	53.33 + 4.30
08	12	12000	19+1	12000 + 10584	202.66 + 9.40
09	12	12000	20+1	12000 + 9012	213.33 + 8.01
10	12	12000	9+1	12000 + 11292	96.00 + 10.03
11	22	8300	24	3300	236.62
Total					5672.88

Pile Diameter	φ12	φ16	φ22	φ25	φ32
TOTAL LENGTH(M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
- LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.

GENERAL NOTES:
- All dimensions in millimeters.
- All reinforcement bars shall be as per IS 1786.
- All reinforcement bars shall be as per IS 1786.
- All reinforcement bars shall be as per IS 1786.
- All reinforcement bars shall be as per IS 1786.
- All reinforcement bars shall be as per IS 1786.

ALL DIMENSIONS SHOULD BE TAKEN BEFORE CONSTRUCTION IN SIZ

ABBREVIATION :
- T.O.A = Top of Asphalt
- T.O.C = Top of Concrete
- T.O.B = Top of Boring
- T.O.F = Top of Filling
- T.O.L = Top of Level
- T.O.H = Top of Hand

DRAWING REFERENCES:

REINFORCEMENT BRIDGE

GENERAL NOTES

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

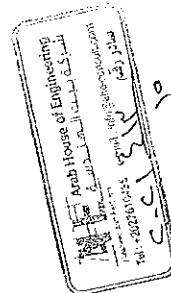
REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE

REINFORCEMENT BRIDGE





Al Amal Ready mix

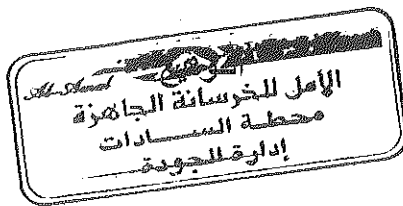
الأمل

المخرى بمقايير الجاهزة
رأس المال المخصص به ١٥٠ مليون جنيه
والقصر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile1- Pier1
Dimension : 15*15*15 cm
Date of casting : 22/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	22/02/2023	01/03/2023	7	8.413	90810	404	419
2	22/02/2023	01/03/2023	7	8.508	98780	439	
3	22/02/2023	01/03/2023	7	8.814	93500	416	



Handwritten signature

Handwritten signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Kalamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriale Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٩
مدينة السادات .. المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥١٦٧٣

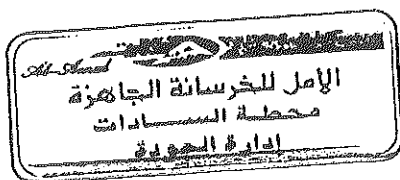
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile1- Pier1
Dimension : 15*15*15 cm
Date of casting : 22/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	22/02/2023	22/03/2023	28	8.456	120600	536	531
2	22/02/2023	22/03/2023	28	8.478	119300	530	
3	22/02/2023	22/03/2023	28	8.623	118300	526	

التوقيع:



Signature

Signature

Head Office: Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

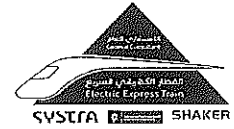
Workstation: New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01008033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة: مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس: ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨

موبايل: ٠١١٠١١٦٧١٧
موقع العمل: القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت: ٢٩٨٤٠١٠٩ / ف: ٢٩٨٤١١٣٦
٠١٠٦٠٣٣٨٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت: ٤٨ / ٢٦٣٠١٤٥ - ف: ٤٨ / ٢٦٣٠١٤٥
٠١٠٤٩٧٦٤٩٧ - ٠١٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name Ahmed Adel	Sign 	Date 1/ 3 / 2023	Time							
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity :		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P2 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:	370 kg/cm ²		
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammed Gardouh			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	1/ 3 / 2023
Pile No.	P2	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.061	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.591
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.261

Pile Survey

Coordinates	EAST	North
Theoretical	585463.329	830450.151
Actual	585463.351	830450.179
Δ	-0.022	-0.028

Bentonite Slurry Test

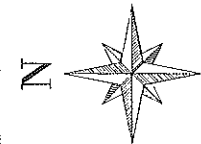
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.06
Viscosity(Sec.)	30:70 Sec.	32	≤90 Sec.	37
Sand Content %	Less than 2%	N/A	Less than 2%	1.4 %

Geotechnical Log

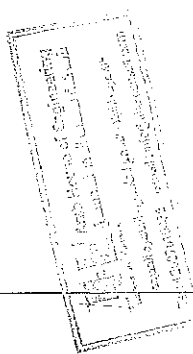
0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	1/3/2023			Cleaning	—	—	—
Install Cages	1/3/2023			pouring	1/3/2023		
		Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5	
Slump	22	21.5	23	22.8	21.9		
Temperature	29	30.1	32	31	29		



NOTES:
ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.

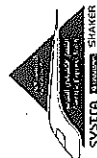


NO.	DATE	REV.	REASON
01	04/02/22	1.0	ISSUED FOR CONSTRUCTION

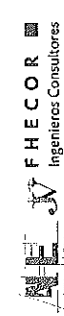
OWNER:
جمهورية مصر العربية
AND REPUBLIC OF EGYPT
وزارة النقل
Ministry of Transport
الهيئة العامة للنقل والملاحة
General Authority of
Transport and Navigation
CAE/ET

NAME OF PROJECT:
ELECTRICAL SUPPLY TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF TALE TO ALAMANA)

NAME OF OWNER CONSULTANT:



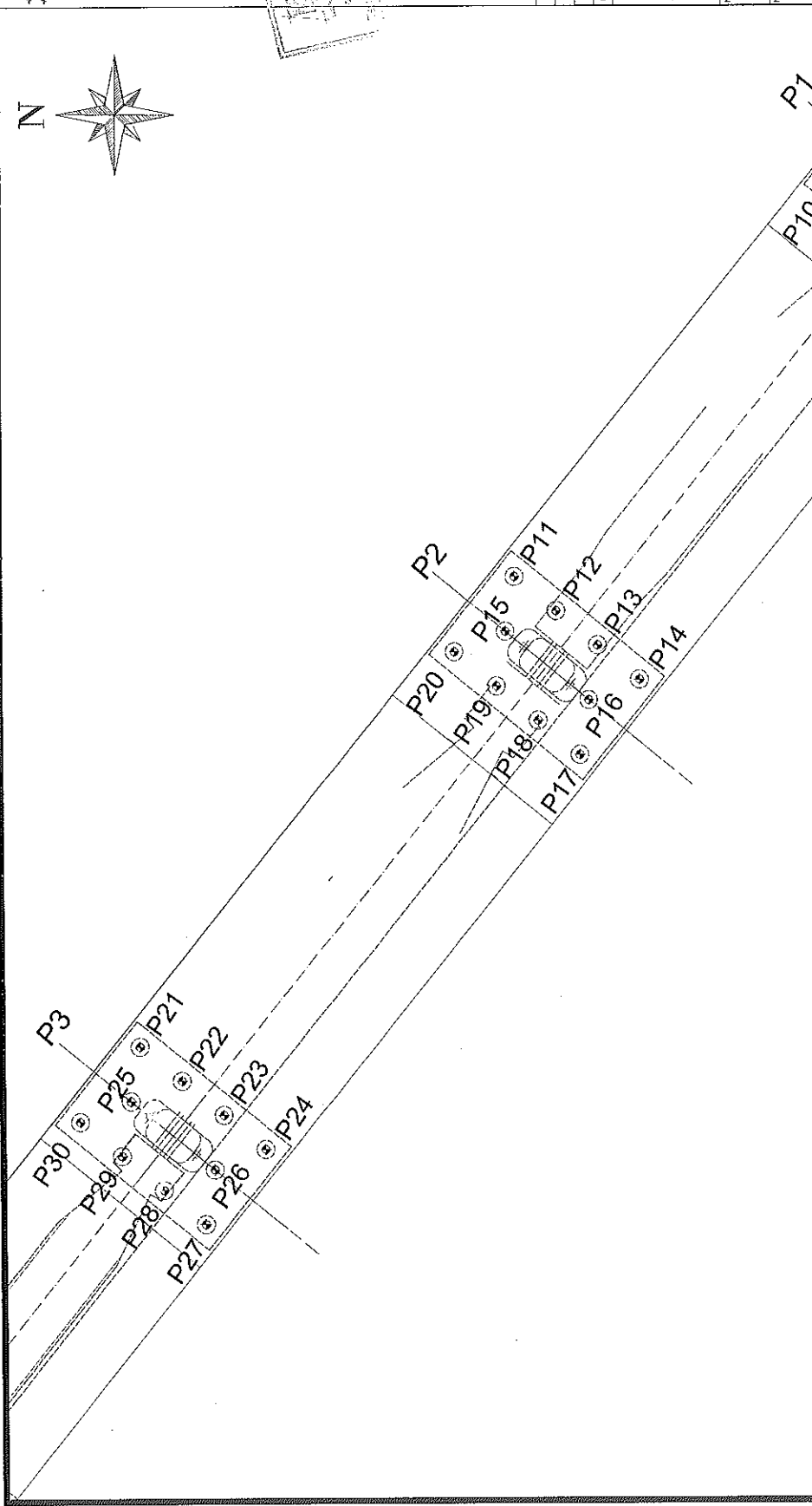
NAME OF CONTRACTOR CONSULTANT:



MAIN CONTRACTOR:



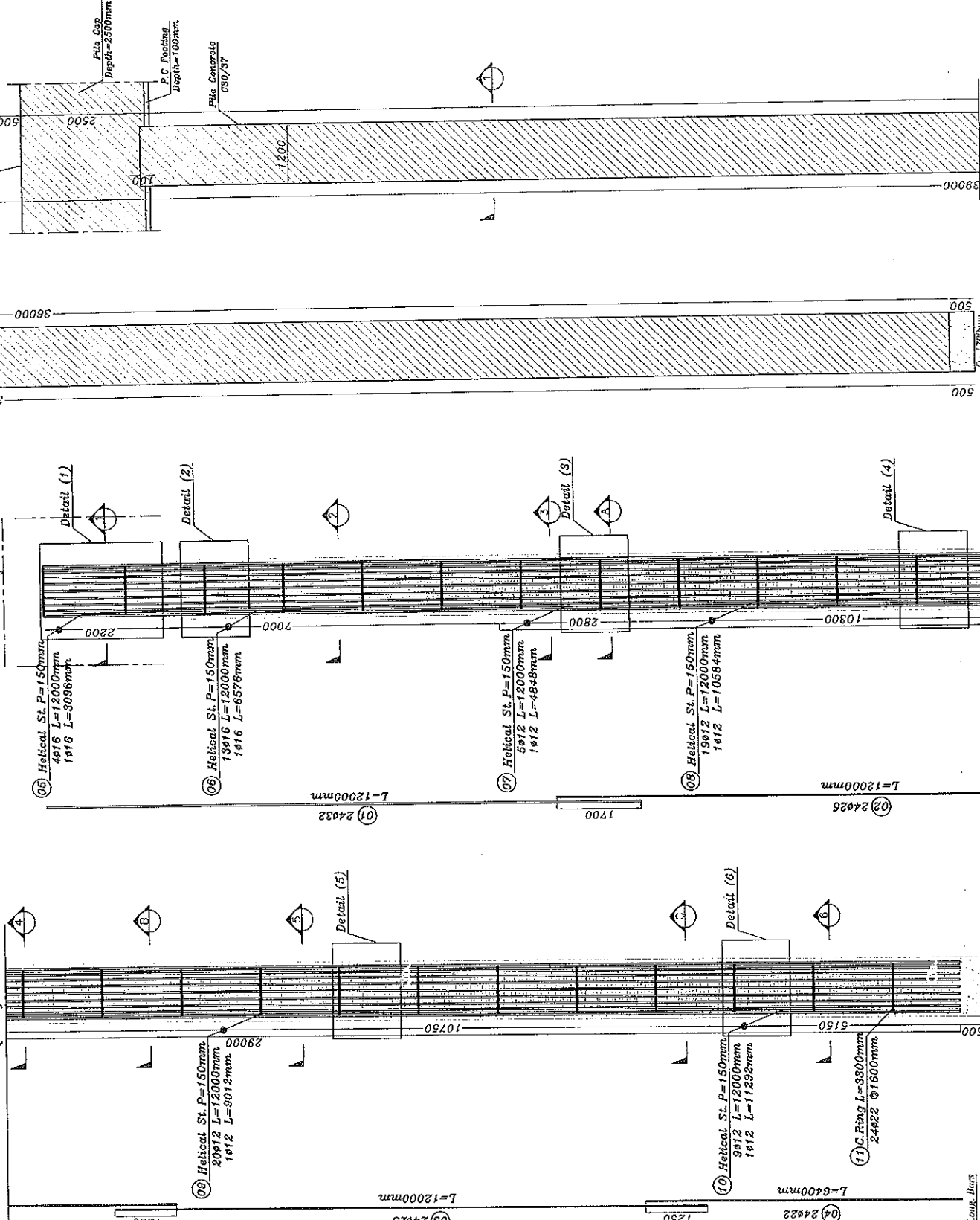
DWG. TITLE	REGIONAL BRIDGE PILES COORDINATES APPROVED AXIS FROM P1 - P3
SCALE	1:150
DRAWING BY	Eng. Mohamed Ali
CHECKED BY	Eng. Mohamed Ali
DATE	04/02/22
APPROVED BY	Eng. Mohamed Ali



Point Table				
Point #	Easting	Northing	Axis	
P21	585403.552	830503.439	P3	
P22	585401.280	830500.647	P3	
P23	585399.008	830497.855	P3	
P24	585396.735	830495.063	P3	
P25	585399.934	830504.063	P3	
P26	585395.389	830498.478	P3	
P27	585391.771	830499.102	P3	
P28	585394.044	830501.894	P3	
P29	585396.316	830504.687	P3	
P30	585398.688	830507.479	P3	

Point Table				
Point #	Easting	Northing	Axis	
P11	585434.577	830478.191	P2	
P12	585432.305	830475.399	P2	
P13	585430.032	830472.607	P2	
P14	585427.760	830469.814	P2	
P15	585430.959	830478.815	P2	
P16	585426.414	830473.230	P2	
P17	585422.796	830473.854	P2	
P18	585425.068	830476.646	P2	
P19	585427.341	830479.439	P2	
P20	585429.613	830482.231	P2	

Point Table				
Point #	Easting	Northing	Axis	
P1	585465.602	830452.943	P1	
P2	585463.329	830450.151	P1	
P3	585461.057	830447.358	P1	
P4	585458.785	830444.566	P1	
P5	585461.983	830453.567	P1	
P6	585457.439	830447.982	P1	
P7	585453.821	830448.606	P1	
P8	585456.093	830451.398	P1	
P9	585458.365	830454.190	P1	
P10	585460.638	830456.983	P1	





Al-Ahram Ready Mix

الأهرام

للخرسانة الجاهزة
رأس المال المصرى - القاهرة
والحدود المحيطة بها

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 2- Pier 1
Dimension : 15*15*15 cm
Date of casting : 01/03/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	01/03/2023	08/03/2023	7	8.468	103500	460	479
2	01/03/2023	08/03/2023	7	8.581	112100	498	
3	01/03/2023	08/03/2023	7	8.601	107600	478	



Handwritten signature

Handwritten signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Kalamia - Part 82 - 83

Tel.: 29841136 / Fax: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel: 048 2630145 / Fax: 048 2630140

01028459873 - 01006890835 - 01004976497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمى - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨

موبايل : ٠١١٠١١١٦٧١٧

موقع العمل : القاهرة الجديدة - المنطقة قطعة ٨٢ - ٨٣

ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٠٧٨٤٩١٩٧٧

E-mail: info@alamreadymix.com

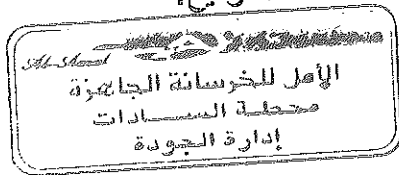
Website: www.alahramreadymix.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 2- Pier 1
Dimension : 15*15*15 cm
Date of casting : 01/03/2023
MIX DESIGN STRENGTH : 370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	01/03/2023	29/03/2023	28	8.417	130200	579	565
2	01/03/2023	29/03/2023	28	8.523	129500	576	
3	01/03/2023	29/03/2023	28	8.546	121800	541	

التوقيع:



(Handwritten signature)

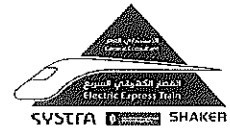
(Handwritten signature)

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855896 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01023459875 - 01006880835 - 01004970497

الإدارة : مول إيجيبت ميدكال سنتر - الدور الرابع - ش. د. شيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
تلف : ٢٩٨٤١١٣٦ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٠٢٢٧٨٥٥٥١٦
محطة المسادات - المنطقة الصناعية الصناعية قطعة ٧ - ٧٠٠٥
تلف : ٠٤٨ / ٢٦٣٠١٤٥ - ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٦٧١٦١٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٢٥١١٧٧

البريد الإلكتروني : info@ahli.com.eg
البريد الإلكتروني : info@ahli.com.eg

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name <i>Ahmed Adel</i>	Sign <i>[Signature]</i>	Date 25 / 2 / 2023	Time							
Received by ER	محرم باخوم		CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity :		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P3 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 370 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Ahmed Adel</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>Mohammad Gardouh</i>	<i>[Signature]</i>		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	25 / 2 / 2023
Pile No.	p3	Structure	bridge	Pile Cutoff Level	—
pier	p1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.081	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.611
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.281

Pile Survey

Coordinates	EAST	North
Theoretical	585461.057	830447.358
Actual	585461.09	830447.388
Δ	-0.033	-0.03

Bentonite Slurry Test

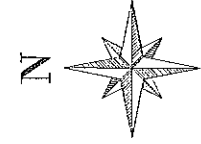
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.6 %

Geotechnical Log

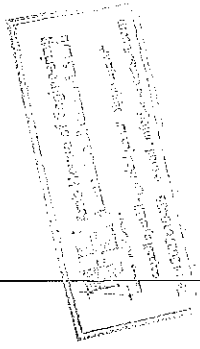
0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	25/2/2023			Cleaning	—	—	—
Install Cages	25/2/2023			pouring	25/2/2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	22	21.3	23	22.6	21.5		
Temperature	30	31.5	30.5	29.9	32		



NOTES:-
ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.



NO.	DATE	ENCL.	REASON
00	06/2022	N/A	ISSUED FOR CONSTRUCTION

OWNER:
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة التخطيط
Ministry of Planning
الهيئة العامة للغمر والتجارة
General Authority of
Customs and Excise
CARELIT

NAME OF PROJECT
ELECTRICAL LEAPERS TRAIN (ENCLOSED AND)
SECTION THREE FROM WEST OF PILE TO ADJACENT

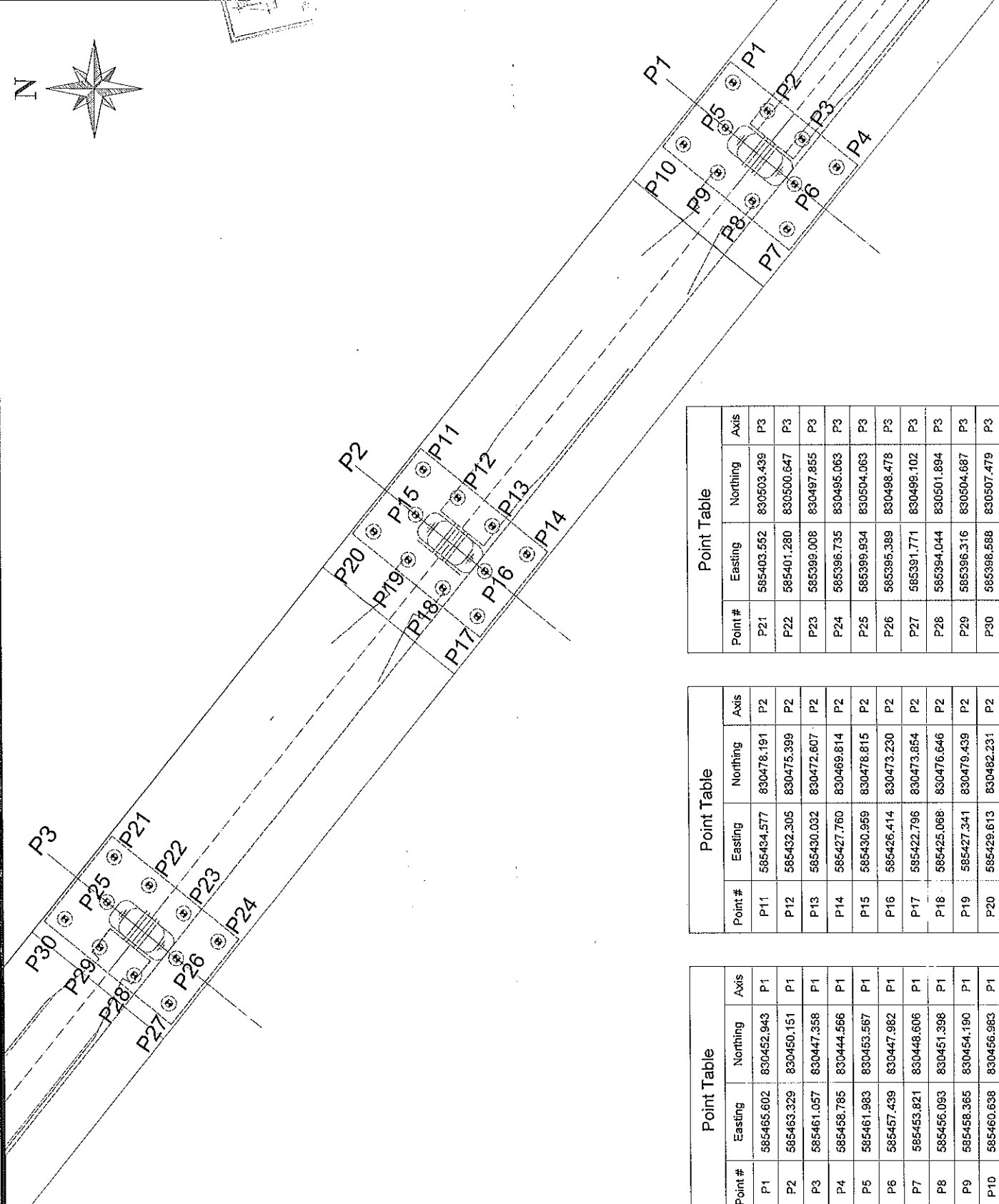
NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT
FHECOR
Ingenieros Consultores



DRG. TITLE REGINA BRIDGE FROM P1 TO P3	DATE 06/2022	SCALE 1:100
DWG. NO. PCC-06	DRAWING BY Engr. Mohamed Salah	CHECKED BY
APPROVED BY Engr. Mohamed Salah		



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830498.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

[illegible]

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

REC'D - 001 - CC-010-001 - NOT E02	REC'D - 001 - CC-010-001 - NOT E02
GENERAL NOTES	GENERAL NOTES
ADJUTANT 1, DEFINITION	ADJUTANT 1, DEFINITION
REC'D - 001 - CC-010-001 - NOT E02	REC'D - 001 - CC-010-001 - NOT E02
GENERAL NOTES	GENERAL NOTES
ADJUTANT 1, DEFINITION	ADJUTANT 1, DEFINITION

Arab House of Engineering
مركز البحوث والدراسات الهندسية
Tel : +967 9 10406 Fax : +967 9 10406
صندوق بريدي ١٢٣٤٥٦

NO.	DATE	NO.	REVISION
1	10/10/00	1	ISSUED FOR CONSTRUCTION AS PER REVIEW NOTICE No. 1009

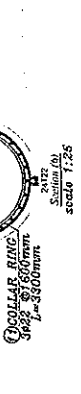
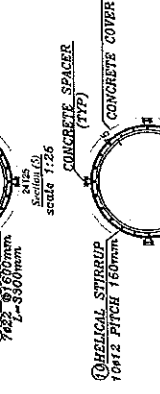
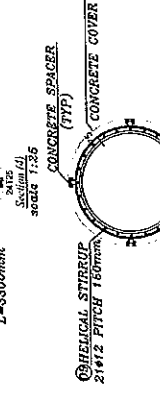
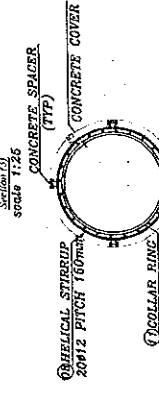
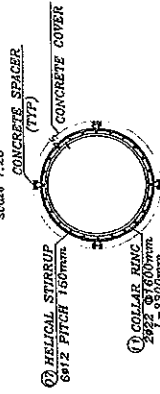
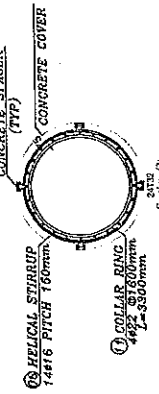
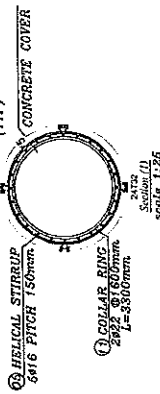
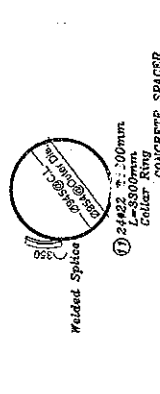
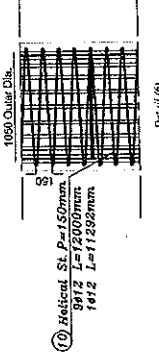
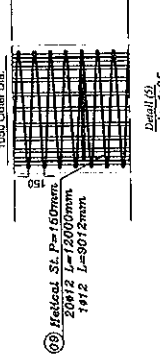
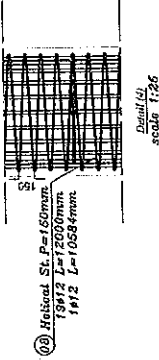
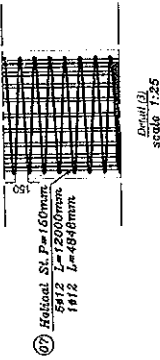
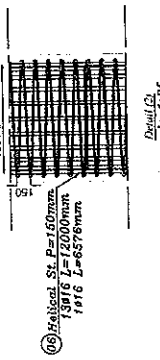
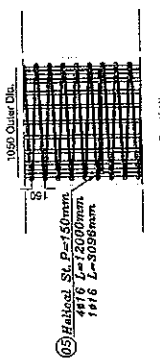
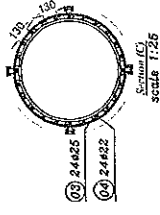
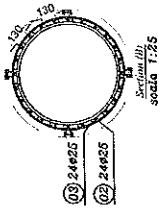
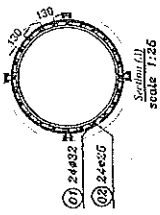
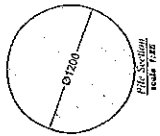

 وزارة النقل
 MINISTRY OF TRANSPORT
 AND COMMUNICATIONS
 دولة الكويت
 STATE OF KUWAIT

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF MOLE TO ALAMOGU)

WAF
FHECOR 
Ingenieros Consultores



WORK TITLE	RECON ROAD BRIDGE PILES AT JAMES (P. 13492)	
	PILE REINFORCEMENT BARS SHAP DRAWING	
DATE	DATE	TOTAL
10-11-2012	05-2012	AS SHOWN
DRAWING BY:	CHECKED BY:	REVIEWED BY:
ENG. JAMES PERRY	ENG. ANDREW HARRIS	ENG. ANDREW HARRIS
<i>James Perry</i>		<i>meb</i>
SUPERVISOR		APPROVED BY:
SPL. ANDREW HARRIS		ENG. JAMES PERRY





Al-Amal Ready mix

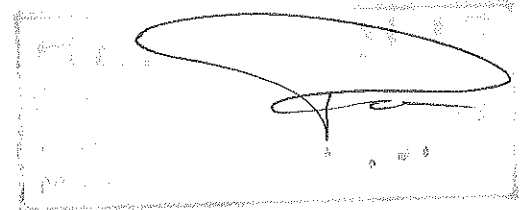
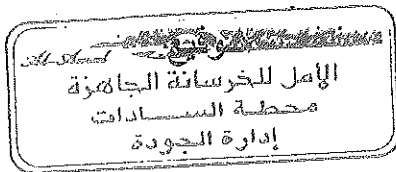
الأمل

للخرسانة الجاهزة ش.م.م
رأس النصار - القاهرة - مصر
والمنصورة - مصر

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile3- Pier 1
Dimension : 15*15*15 cm
Date of casting : 25/02/2023
MIX DESIGN STRENGTH : 370 kg / cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	25/02/2023	04/03/2023	7	8.784	112000	498	478
2	25/02/2023	04/03/2023	7	8.639	99790	444	
3	25/02/2023	04/03/2023	7	8.332	110900	493	



Handwritten signature

Handwritten signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713550
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01020459673 - 01009380635 - 01004970497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. شيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٤٨ / ٢٦٣٠١٤٥ - فاكس : ٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧١١٦٧ - ٠١٠٠٦٨٨٠١٣٥ - ٠١٠٢٨١٥١٦٧٣

E-mail: info@alamalreadymix.com
www.alamalreadymix.com



Al-Amal Ready mix

الأمل

الخرسانة الجاهزة
إلى الشمال، مصر - 10000
والقاهرة، مصر - 10000

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 3 - Pier 1
Dimension : 15*15*15 cm
Date of casting : 25/02/2023
MIX DESIGN STRENGTH : 370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	25/02/2023	26/03/2023	28	8.65	119600	532	548
2	25/02/2023	26/03/2023	28	8.705	120200	534	
3	25/02/2023	26/03/2023	28	8.743	130100	578	



Handwritten signature

Handwritten signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459873 - 01006890635 - 01004978497

الإدارة : مول إيجيبت ميدكال سنتر - الدور الرابع - ش. د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٠٢ ٢٤٧١٣٥٥٨ - ٠٢ ٢٣٥٧٣٣٠٧
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ش : ٢٩٨٤٠١٠٩ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦ - ٠١٠٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ش : ٠٤٨ / ٢٦٣٠١٤٥ - فاكس : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٩٧١٦٩٧ - ٠١٠٠٦٨٨٤١٣٥ - ٠١٢٨٤٥٩٩٧٧

email: info@al-amalreadymix.com
www.al-amalreadymix.com

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name Ahmed Adel	Sign 	Date 4/ 3 / 2023	Time							
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity :		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P4 OF FOOTING P1			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade:370 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour:	pm	Concrete Volume:	51	m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammed Gardowh			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	4/ 3 / 2023
Pile No.	P4	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.341	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.871
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.541

Pile Survey

Coordinates	EAST	North
Theoretical	585458.785	830444.566
Actual	585458.759	830444.555
Δ	0.026	0.011

Bentonite Slurry Test

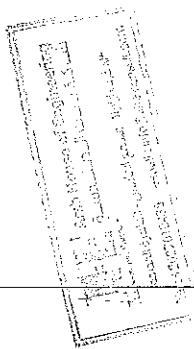
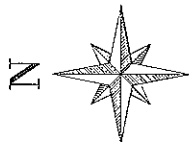
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.04	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	33	≤90 Sec.	38
Sand Content %	Less than 2%	N/A	Less than 2%	1.5 %

Geotechnical Log	
0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

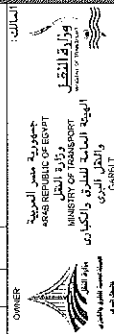
Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	4/3/2023			Cleaning	—	—	—
Install Cages	4/3/2023			pouring	4/3/2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	22	21.5	23	22.8	21.9		
Temperature	29	30.1	32	31	29		

NOTES:
ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.



NO.	DATE	ENG.	REVISION
01	26/02/23	K.A.	ISSUED FOR CONSTRUCTION

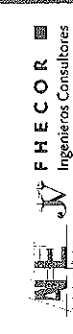


NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN HIGH SPEED (AHLI)
SECTION THREE FROM WEST OF TALE TO ALHAWA

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT

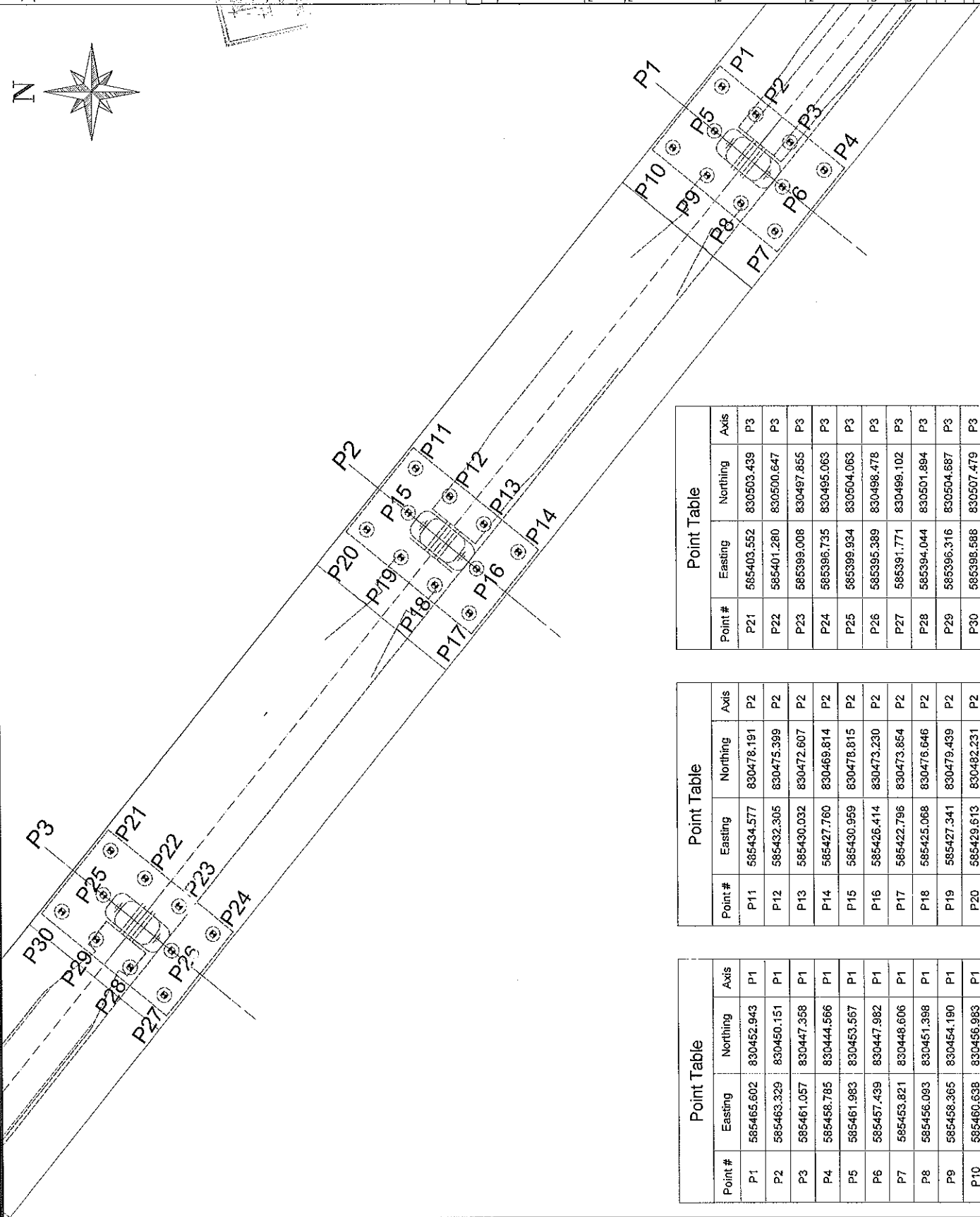


NAME CONTRACTOR



DWG. TITLE
PILES COORDINATES FOR APPROVED AXIS
FROM P1 TO P3

DATE	SCALE
08/02/23	1:150
DRAWN BY Eng. Mohamed Ali	CHECKED BY Eng. Mohamed Ali
SUPVISED BY Dr. Mohamed Ibrahim	APPROVED FOR Eng. Jaber Tawfik



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830473.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

[illegible]

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bedding
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

SPR-V001-CC-010-001-NOT-002

Arab House of Engineering
 مؤسسة البيت العربي للهندسة
 2027616436
 Email: info@ahouse.com

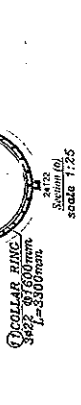
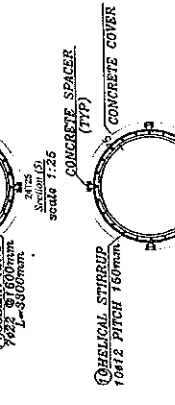
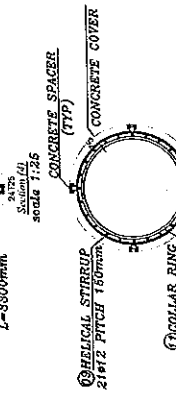
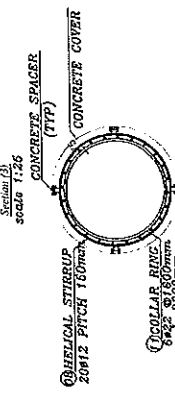
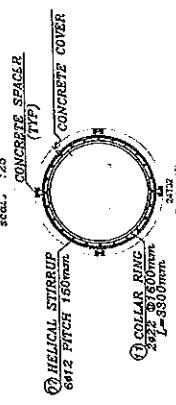
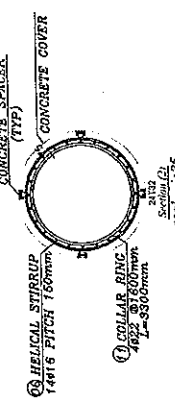
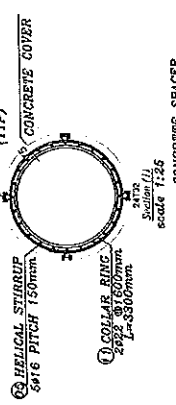
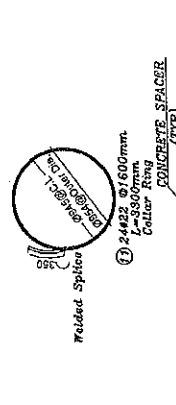
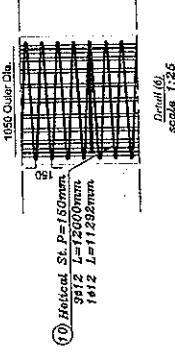
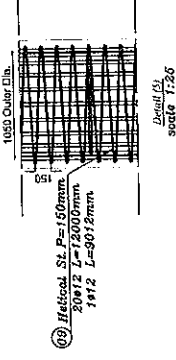
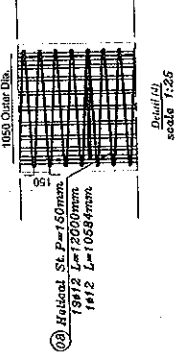
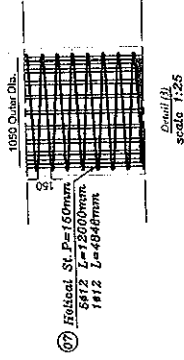
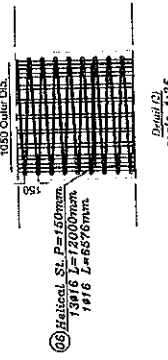
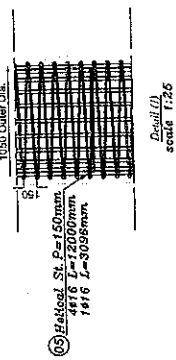
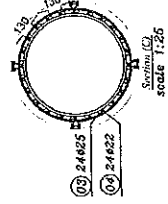
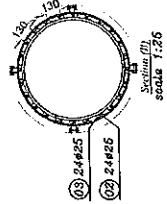
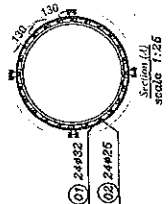
[illegible]

جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 المديرية العامة للطرق والكباري
 والبنى البرى
 CASUALTY
 قسم احوال مصرى
 وزارة النقل
 وقسم احوال
 وقسم احوال

NAME OF PROJECT: ELECTRICAL EXPERTS TEAM (HIGH SPEED RAIL)

V **FHECOR** 
Ingenieros Consultores

DATE NO.	DATE:	SCALE:
VAL-COLL-90-101-001-PE-50	6-22-92	AS SHOWN
DRAWING BY:	CHECKED BY:	REVIEWED BY:
ELSG, JAMES TERRY	ELSG, ABRAHAM MOHAM	ELSG, MARSHALL STAN
<i>[Signature]</i>		<i>mas</i>
SUPERVISOR:	APPROVED BY:	
DR. MARSHALL STANLEY	Log. JAMES TERRY	





Al-Amal Ready Mix

الأمل

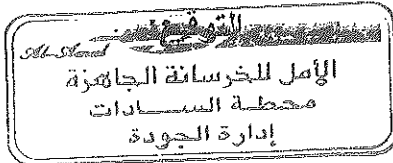
للخرسانة الجاهزة
وأساسات الخرسانة
والصخرات الجاهزة

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

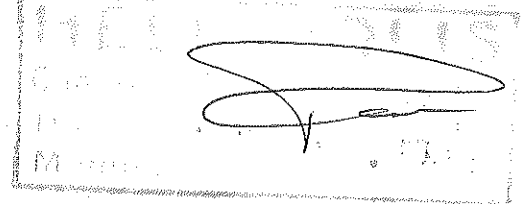
PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 4- Pier 1
Dimension : 15*15*15 cm
Date of casting : 04/03/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	04/03/2023	11/03/2023	7	8.433	100600	447	455
2	04/03/2023	11/03/2023	7	8.576	105200	468	
3	04/03/2023	11/03/2023	7	8.486	101600	452	

الخاصة بالعربية الرابعة والخامسة



شركة



تامر سامح



Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83

Tel: 29841136 / Fax: 29840109

01227855596 - 01068044170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel: 048 2630145 / Fax: 048 2630140

01028459673 - 01006030835 - 01004976497

E-mail: info@alamalreadymix.com

Website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش. د. الشيمي - المنطقة العاشرة

مدينة نصر / تليفون : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨

موبايل : ٠١١٠١١١٦٧١٧

موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

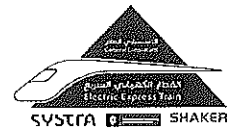
تليفون : ٢٩٨٤١١٣٦ / ٢٩٨٤٠١٠٩

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

تليفون : ٠٤٨ / ٢٦٣٠١٤٥ - ٠٤٨ / ٢٦٣٠١٤٥

موبايل : ٠١٠٠٤١٧٦٤١٧ - ٠١٠٠٦٨٨٠١٦٣ - ٠١٠٠٢٨٤١١٧٧

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name Ahmed Adel	Sign 	Date 21/2/2023	Time							
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity :		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P5 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 370 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammad Gardawy			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	20/ 2 / 2023
Pile No.	P5	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	39.785	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.315
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	0.985

Pile Survey

Coordinates	EAST	North
Theoretical	585462.003	830453.572
Actual	585461.983	830453.567
Δ	0.02	0.005

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.04	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	33	≤90 Sec.	38
Sand Content %	Less than 2%	N/A	Less than 2%	1.5 %

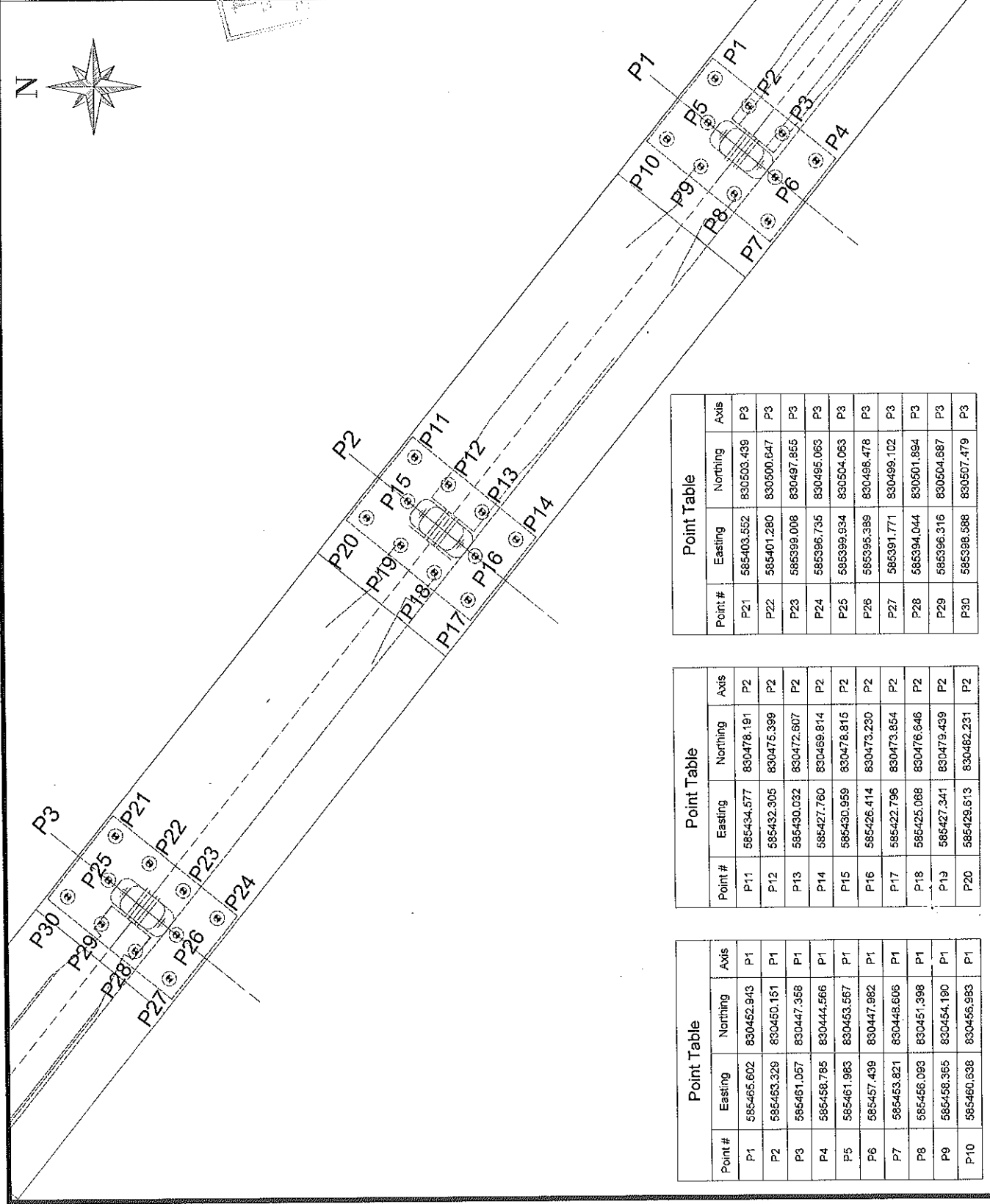
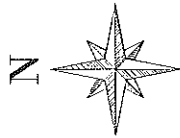
Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	20/2/2023			Cleaning	—	—	—
Install Cages	20/2/2023			pouring	20/2/2023		
		Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5	
Slump	22	21.5	23	22.8	21.9		
Temperature	29	30.1	32	31	29		

NOTES:
 ALL COORDINATES ARE IN METERS UNLESS OTHERWISE IDENTIFIED
 ALL COORDINATES ARE BASED ON THE EGYPTIAN TRANSVERSE
 MERCATOR AS FOR THE RECEIVED SITE SURVEY.



NO.	DATE	BY	REVISION

PROJECT: **الخطوط الجوية المصرية**
 GENERAL CONTRACTOR: **شركة مصر للطيران**
 ARCHITECT: **مكتب الهندسة المعمارية**
 ENGINEER: **مهندس**
 SURVEYOR: **مهندس**
 DRAWING:

NAME OF PROJECT: **الخطوط الجوية المصرية**
 ELECTRICAL DRAWING:
 SECTION:
 NAME OF OWNER:

NAME OF CONTRACTOR:
 NAME OF ARCHITECT:
 NAME OF ENGINEER:
 NAME OF SURVEYOR:

NAME OF CONSULTANT:
 NAME OF ARCHITECT:
 NAME OF ENGINEER:
 NAME OF SURVEYOR:

NAME OF CONSULTANT:
 NAME OF ARCHITECT:
 NAME OF ENGINEER:
 NAME OF SURVEYOR:

NAME OF CONSULTANT:
 NAME OF ARCHITECT:
 NAME OF ENGINEER:
 NAME OF SURVEYOR:

Point Table				
Point #	Easting	Northing	Axis	
P21	585403.552	830503.439	P3	
P22	585401.280	830500.647	P3	
P23	585399.008	830497.855	P3	
P24	585396.735	830495.063	P3	
P25	585395.934	830504.053	P3	
P26	585395.389	830498.478	P3	
P27	585391.771	830499.102	P3	
P28	585394.044	830501.894	P3	
P29	585396.316	830504.887	P3	
P30	585398.588	830507.479	P3	

Point Table				
Point #	Easting	Northing	Axis	
P11	585434.577	830478.191	P2	
P12	585432.305	830475.399	P2	
P13	585430.032	830472.607	P2	
P14	585427.760	830469.814	P2	
P15	585430.959	830478.815	P2	
P16	585426.414	830473.230	P2	
P17	585422.796	830473.854	P2	
P18	585425.068	830476.646	P2	
P19	585427.341	830479.439	P2	
P20	585429.613	830482.231	P2	

Point Table				
Point #	Easting	Northing	Axis	
P1	585465.602	830452.943	P1	
P2	585463.329	830450.151	P1	
P3	585461.057	830447.358	P1	
P4	585458.785	830444.566	P1	
P5	585461.983	830453.567	P1	
P6	585457.439	830447.982	P1	
P7	585453.821	830448.606	P1	
P8	585456.093	830451.398	P1	
P9	585458.365	830454.190	P1	
P10	585460.638	830456.983	P1	



Al Amal Ready mix

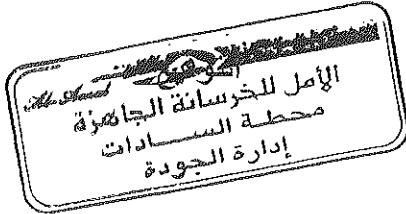
الأمل

المخرسانة الجاهزة ش.م.م.
رأس المال المخصص به ١٥٠ مليون جنيه
والصندوق ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 5 - Pier 1
Dimension : 15*15*15 cm
Date of casting : 20/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	20/02/2023	27/02/2023	7	8.403	98510	438	475
2	20/02/2023	27/02/2023	7	8.364	112000	498	
3	20/02/2023	27/02/2023	7	8.760	110200	490	



Signature

Signature

تامر الناصر

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٤٨ / ٢٦٣٠١٤٠ - ف : ٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٩٣٥ - ٠١٠٢٨٤٥٩٦٧٣

الإدارة

موقع العمل



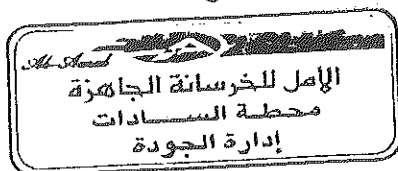
الرئيسية الجامعة
رأس المال المرخص به ٦٠ مليون جنيه
والأحد ٦٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT	:	مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT	:	شركة النيل العامة للطرق والكبارى
ELEMNET	:	Pile 5 - Pier 1
Dimension	:	15*15*15 cm
Date of casting	:	20/02/2023
MIX DESIGN STRENGTH	:	370 kg / cm ²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	20/02/2023	20/03/2023	28	8.483	134300	597	576
2	20/02/2023	20/03/2023	28	8.567	124200	552	
3	20/02/2023	20/03/2023	28	8.463	130500	580	

التوقيع:



Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katarnia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459873 - 01006880835 - 01004976497

E-mail: info@almanalreadymix.com
website: www.almanalreadymix.com

مول إيجيبت ميدكال سنتر - الدور الرابع - ش.د. الشيمس - المنطقة الحاضرة
مدينة نصر / تليفاكس: ٢٣٥٧٣١٠٧ - ٢٤٧١٣٥٥٨
موبايل: ٠١١٠١١٦٧١٧

موقع العمل :

القاهرة الجديدة - القطعة ٨٧ - ٨٣

٧٩٨٤٠١٩ : فـ ٧٩٨٤١١٩٦

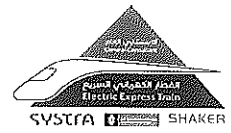
١٠٠٠١٦٨٤٤١٧٠ : ١٠٠١٧٧٨٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

٤٨٠٧٧ : ٤٨٠١٥ : فـ ٤٨٠٧٧٢٤٥

١٠٠٠١٦٨٨١٦٣٥ : ١٠٠١٦٨٨١٦٣٧

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name Ahmed Adel	Sign 	Date 21/2/2023	Time							
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity :		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P6 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 370 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohamed Gardouh			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	21 / 2 / 2023
Pile No.	p6	Structure	bridge	Pile Cutoff Level	—
pier	p1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.044	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.574
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.244

Pile Survey

Coordinates	EAST	North
Theoretical	585457.439	830447.982
Actual	585457.417	830447.972
Δ	0.022	0.01

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.02	Less Than 1.15	1.04
Viscosity(Sec.)	30:70 Sec.	32	≤90 Sec.	37
Sand Content %	Less than 2%	N/A	Less than 2%	1.5 %

Geotechnical Log

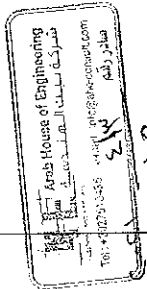
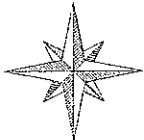
0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	21/ 2 / 2023			Cleaning	—	—	—
Install Cages	21/ 2 / 2023			pouring	21/ 2 / 2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	20.1	22	21.3	21.6	22.8		
Temperature	28	27.5	30	31	30.9		

NOTES:

-ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
-ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.

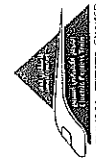


NO.	REVISION
1	ISSUED FOR CONSTRUCTION
2	DATE
3	DATE
4	DATE
5	DATE

OWNER:
REPUBLIC OF EGYPT
MINISTRY OF TRANSPORT
GENERAL AUTHORITY OF
CANALS AND WATERWAYS
GENERAL

NAME OF PROJECT:
ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF AIN HELWAN TO AIN HELWAN)

NAME OF OWNER CONSULTANT:



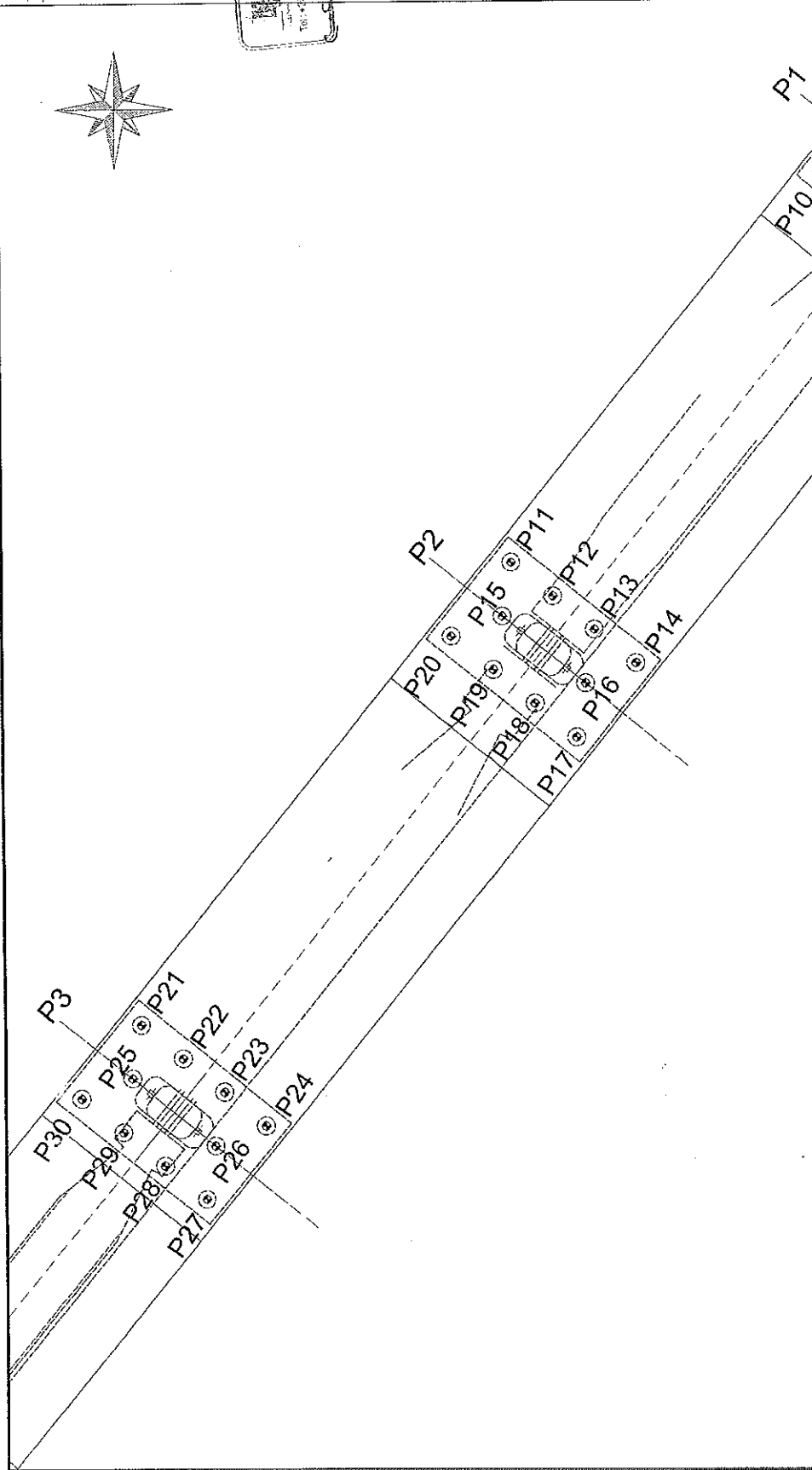
ROLE OF CONTRACTOR CONSULTANT:

F H E C O R
Ingenieros Consultores

NAME CONTRACTOR:



NO.	REVISION
1	ISSUED FOR CONSTRUCTION
2	DATE
3	DATE
4	DATE
5	DATE



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585407.280	830500.647	P3
P23	585395.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585455.821	830448.606	P1
P8	585455.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Arab House of Engineering
مركز الهندسة العربية
www.arabhouseofengineering.com
info@arabhouseofengineering.com
Tel: +9667608245
Cairo - Egypt

5672.88

Pile Diameter	Ø12	Ø16	Ø22	Ø25	Ø32
TOTAL LENGHT(M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.

[illegible]

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

REGINA ROAD BRIDGE
GENERAL NOTES
ABUTMENT 1, DEFINITIVE

SUMMARY
PREMISSES: 82. P2. REINFORCEMENT (1)[illegible]

ONNER:

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
إدارة الموانئ والقنوات النهرية
PORTS AND CANALS AUTHORITY

لجنة الموانئ والقنوات النهرية

ELECTRICAL EXPRESS TRAIN (HIGH SPEED -RAIL) SECTION THREE (FROM WEST OF NILE TO ALABAMA)

SUMMARY OF QUANTITATIVE TESTS:

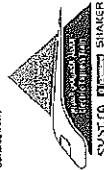


TABLE OF CONTENTS

100

FHECOR 
Ingenieros Consultores



MAIN CONTRACTOR:

Case Title:

REGWA ROAD BRIDGE
ULES AT AXES (P1,P2&P3)

DRAINING

Date: _____

11-11-11

CHECK	

ENG. ADD.

1

1

Table 1

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

100



Al Amal Ready mix

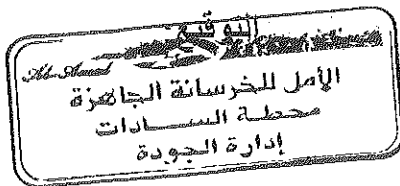
الأمل

للخرسانة الجاهزة
رأس المال المخصص به ٥٠ مليون جنيه
والصندوق ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 6- Pier 1
Dimension : 15*15*15 cm
Date of casting : 21/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	21/02/2023	28/02/2023	7	8.272	91440	406	379
2	21/02/2023	28/02/2023	7	8.635	79680	354	
3	21/02/2023	28/02/2023	7	8.643	84800	377	



Signature

Signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriai Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax: 048 2630140
01028459873 - 01006880635 - 01004976497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٠٢ ٢٤٧١٣٥٥٨ - ٠٢ ٢٣٥٧٣٣٠٧
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٩٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٩٩٧٧

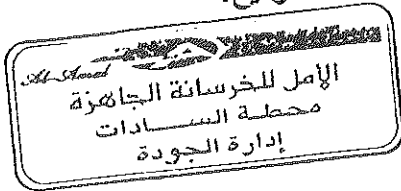
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 6- Pier 1
Dimension : 15*15*15 cm
Date of casting : 21/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	21/02/2023	21/03/2023	28	8.444	97340	433	469
2	21/02/2023	21/03/2023	28	8.536	116200	516	
3	21/02/2023	21/03/2023	28	8.562	103100	458	

التوقيع:



27

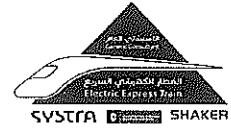
Signature

Head Office: Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation: New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية المساحة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٤٨ / ٢٦٣٠١٤٠ - ف : ٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@al-amalreadymix.com
website: www.al-amalreadymix.com

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name <i>Ahmed Adel</i>	Sign <i>[Signature]</i>	Date 28/ 2 / 2023	Time							
Received by ER		محرم ياخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	الفيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity :		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P7 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:	370 kg/cm ²		
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Ahmed Adel</i>	<i>[Signature]</i>		A
QA/QC				A
Employer Representative	<i>Mohammed Gardouni</i>	<i>[Signature]</i>		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	28/ 2 / 2023
Pile No.	P7	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.407	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.937
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.607

Pile Survey

Coordinates	EAST	North
Theoretical	585453.821	830448.606
Actual	585453.824	830448.594
Δ	-0.003	0.012

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.5 %

Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	28/ 2 /2023			Cleaning	—	—	—
Install Cages	28/ 2 /2023			pouring	28/ 2 /2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	21	20.9	22	22.6	23		
Temperature	31	29.9	30.7	31	29		

GENERAL NOTES:

- 1. All dimensions are in millimeters.
- 2. All reinforcement is to be of high yield strength.
- 3. All reinforcement is to be of high yield strength.
- 4. All reinforcement is to be of high yield strength.
- 5. All reinforcement is to be of high yield strength.
- 6. All reinforcement is to be of high yield strength.
- 7. All reinforcement is to be of high yield strength.
- 8. All reinforcement is to be of high yield strength.
- 9. All reinforcement is to be of high yield strength.
- 10. All reinforcement is to be of high yield strength.

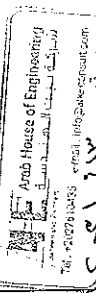
All Levels should be related before construction in site.

ABBREVIATION:

- T.O.A = Top of Arch Butt
- T.O.C = Top of Column
- T.O.F = Top of Footing
- T.O.S = Top of Slab
- T.O.P = Top of Pier
- N.G.L = Natural Ground Level

DRAWING REFERENCES:

- REINFORCEMENT BAR SCHEDULE
- GENERAL NOTES
- REINFORCEMENT BAR SCHEDULE
- REINFORCEMENT BAR SCHEDULE
- REINFORCEMENT BAR SCHEDULE
- REINFORCEMENT BAR SCHEDULE
- REINFORCEMENT BAR SCHEDULE
- REINFORCEMENT BAR SCHEDULE
- REINFORCEMENT BAR SCHEDULE
- REINFORCEMENT BAR SCHEDULE



REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

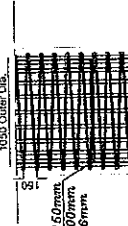
REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

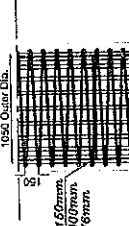
REINFORCEMENT BAR SCHEDULE

REINFORCEMENT BAR SCHEDULE

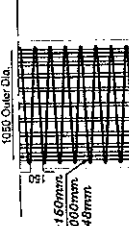
REINFORCEMENT BAR SCHEDULE



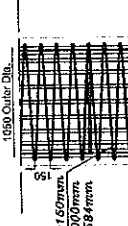
Helical St. P=150mm
1912 L=12000mm
1912 L=3058mm



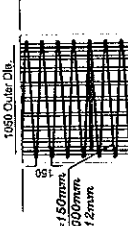
Helical St. P=150mm
1912 L=12000mm
1912 L=3058mm



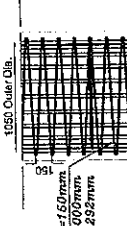
Helical St. P=150mm
1912 L=12000mm
1912 L=4848mm



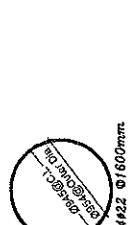
Helical St. P=150mm
1912 L=12000mm
1912 L=1008mm



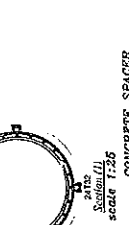
Helical St. P=150mm
2012 L=12000mm
1912 L=3012mm



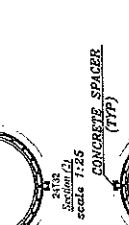
Helical St. P=150mm
9812 L=12000mm
1912 L=11252mm



Helical Staircase
5416 PITCH 150mm
Collar Ring
2412 L=3300mm



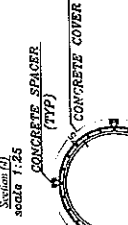
Helical Staircase
14816 PITCH 150mm
Collar Ring
2412 L=3300mm



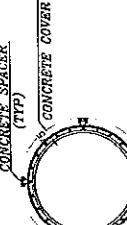
Helical Staircase
2012 PITCH 150mm
Collar Ring
2412 L=3300mm



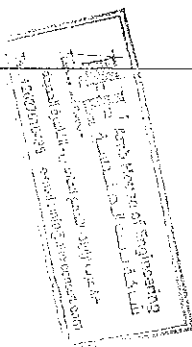
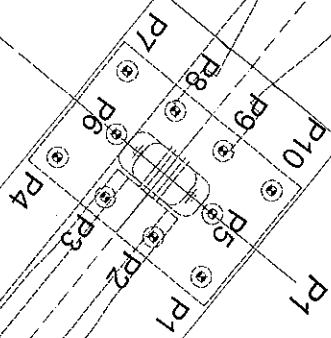
Helical Staircase
2012 PITCH 150mm
Collar Ring
2412 L=3300mm



Helical Staircase
21812 PITCH 150mm
Collar Ring
2412 L=3300mm



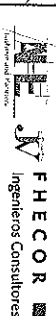
Helical Staircase
10812 PITCH 150mm
Collar Ring
2412 L=3300mm



NOTES


 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للطرق والنقل
 GENERAL AUTHORITY
 OF ROAD AND
 TRANSPORT

NAME OF OWNER CONSULTANT



DATE	SCALE
01/01/2000	1

DRAWING BY	DESIGNED BY	CHECK
------------	-------------	-------

DR. Mahmoud Lahwan	Eng. Jaber Taha
--------------------	-----------------

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585393.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3



Al-Amal Ready Mix

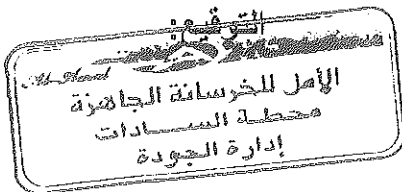
الأمل

للخرسانة الجاهزة
مقر: الأمل المرفأ - القاهرة - مصر
والفروع: ٥٠ موزون جند

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile7- Pier1
Dimension : 15*15*15 cm
Date of casting : 28/02/2023
MIX DESIGN STRENGTH : 370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	28/02/2023	28/03/2023	28	8.428	128000	569	559
2	28/02/2023	28/03/2023	28	8.466	132600	589	
3	28/02/2023	28/03/2023	28	8.552	116800	519	



مدير العمل

مدير العمل

مدير العمل

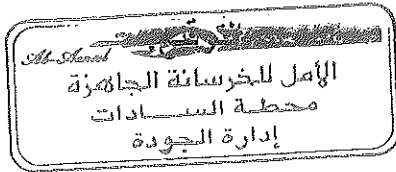
Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713553
Mobile: 01101116717
Workstation : New Cairo - Katamis - Part 82 - 83
Tel.: 29841136 / Fax: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax: 048 2630140
01028459673 - 01006030655 - 01004976497

الإدارة :
مقر إيجيبت ميدكال سنتر - الدور الرابع - ش. د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٣
موبايل : ٠١١٠١١١٦٧١٧
مواقع العمل :
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨١ - ٠١٠٠٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٩٦
مخبرية المعاملات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠١١٧١٦١٧ - ٠١٠٠١٨٨٠١٣٥ - ٠١٠٢٨٦٥١٧٣

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile7- Pier1
Dimension : 15*15*15 cm
Date of casting : 28/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	28/02/2023	07/03/2023	7	8.502	99980	444	464
2	28/02/2023	07/03/2023	7	8.356	109200	485	
3	28/02/2023	07/03/2023	7	8.536	103700	461	



Handwritten signature

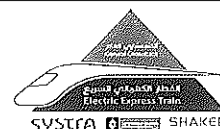
Handwritten signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katania - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01020459673 - 01006880835 - 01004976497

الإدارة : ٤ مول إيجيبت ميدكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القنصلية قطعة ٨٢ - ٨٣
تلف : ٢٩٨٤١١٣٦ / فاكس : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥١٦
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
تلف : ٠٤٨ / ٢٦٣٠١٤٥ - فاكس : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧١٤١٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨١٥٩٦٧٣

E mail: info@al-amalreadymix.com
www.al-amalreadymix.com

REQUEST



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
	Ahmed Adel	[Signature]	7/3/2023								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity : pouring footing p1		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km P8 FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐ Grade: 370 kg/cm ²
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-28 COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel	[Signature]		A
QA/QC				A
Employer	Mohammed Badoun	[Signature]		A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	
Pile No.	P8	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.165	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.695
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.365

Pile Survey

Coordinates	EAST	North
Theoretical	585456.093	830451.398
Actual	585456.083	830451.381
Δ	0.01	0.017

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.6 %

Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

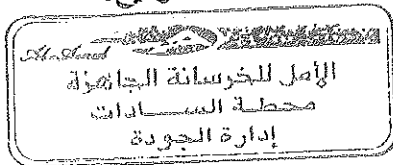
Activity	Date	From	To	Activity	Date	From	To
Drilling	26/ 2 /2023			Cleaning	—	—	—
Install Cages	26/ 2 /2023			pouring	26/ 2 /2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	22.5	21.6	20.6	20.8	22.3		
Temperature	32	29.9	30.5	30.2	28		

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 8 - Pier 1
Dimension : 15*15*15 cm
Date of casting : 07/03/2023
MIX DESIGN STRENGTH : 370 kg/cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	07/03/2023	09/04/2023	28	8.598	108600	483	516
2	07/03/2023	09/04/2023	28	8.509	121600	540	
3	07/03/2023	09/04/2023	28	8.58	118100	525	

التوقيع:



Handwritten signature

Handwritten signature

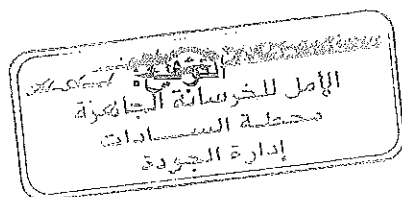
Handwritten signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23673307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227355596 - 01068844170 - 01008033880
El Sadat City - Industrial Zone (7) - Part 7093 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01026459573 01003830038 01004970497

الإدارة : ٥ مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة الحاضرة
مدينة نصر / كتابة اليدوية : ٧ ٢٣٥٧٣٣٠٧ - ٢ ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
مواقع العمل : القاهرة الجديدة - المنطقة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٨٠٣٣٨٨٠ - ٠١٠٠٨٨٤٤١٧٠ - ٠١٠٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٢ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٠٤٩٧ - ٠١٠٠٣٨٨٠٣٨٨ - ٠١٠٢٩٨١١٧٣

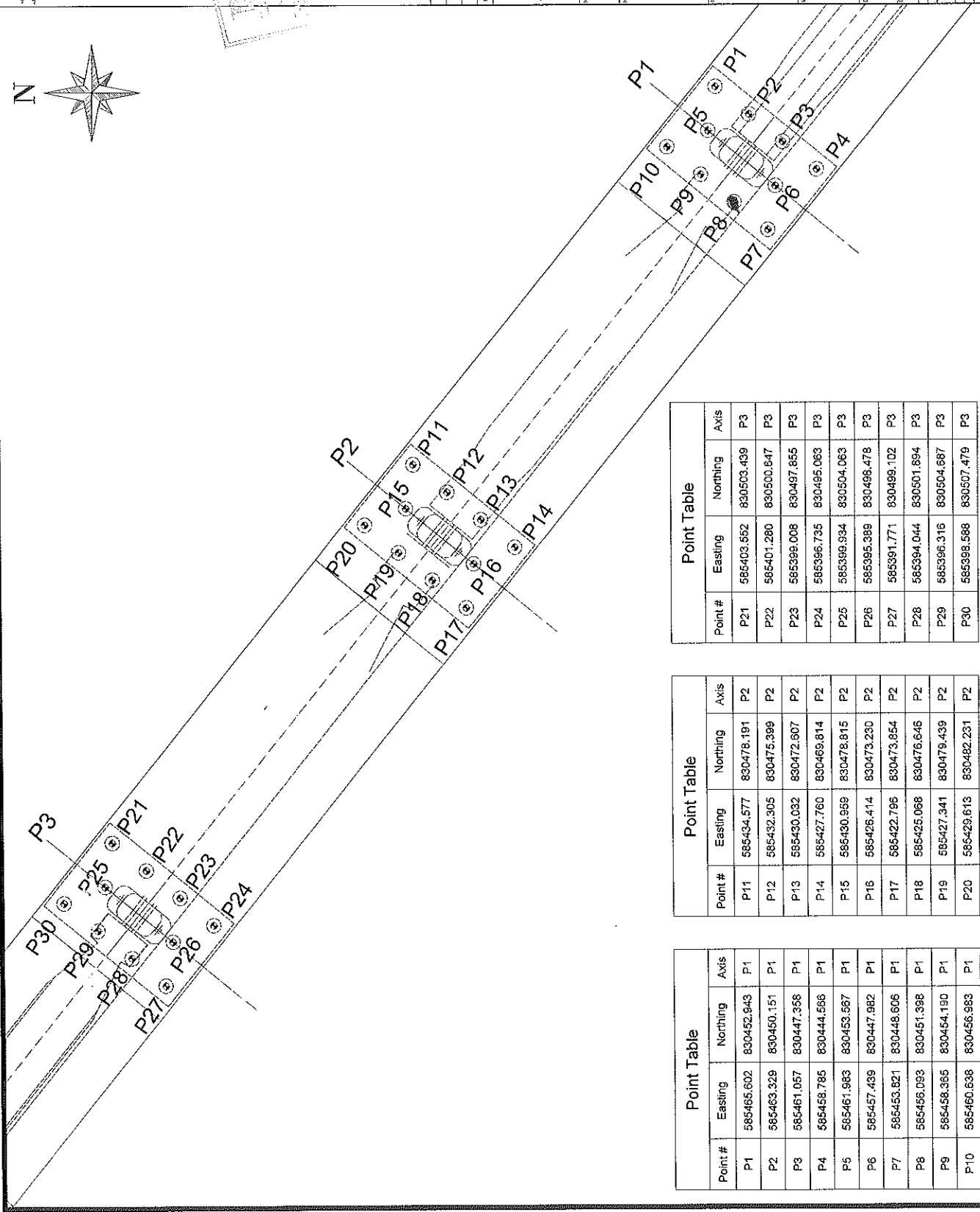
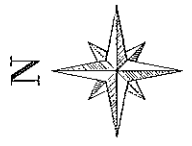
مشروع القطار الكهربائي السريع (كوبرى رجا)
شركة النيل العامة للطرق والكبارى
Pile 8- Pier 1
15*15*15 cm
07/03/2023
370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm ²)	Average
1	07/03/2023	14/03/2023	7	8.476	102900	457	445
2	07/03/2023	14/03/2023	7	8.533	105700	470	
3	07/03/2023	14/03/2023	7	8.47	91500	407	



تاسو لاء

NOTES:
 ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
 ALL COORDINATES ARE BASED ON ETM EGYPTIAN TRANSVERSE
 MERCATOR, AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585457.983	830453.597	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585458.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

OWNER:		REVISION:	
NO.	DATE	NO.	DATE
ISSUED FOR CONSTRUCTION		REVISION	
OWNER:			
NAME OF PROJECT:			
SECTION THREE (FROM WEST OF ABU TO ALAMIN)			
NAME OF OWNER CONSULTANT:			
NAME OF CONTRACTOR CONSULTANT:			
NAME OF CONTRACTOR:			
NAME OF TITLE:			
PILES COORDINATES FOR APPROVED AXIS FROM P1 : P3			
DATE	NO.	DATE	NO.
DESIGNED BY	DESIGNED BY	CHECKED BY	CHECKED BY
APPROVED BY	APPROVED BY	APPROVED BY	APPROVED BY
DATE	DATE	DATE	DATE

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name Ahmed Adel	Sign 	Date 26 / 2 / 2023	Time																
Received by ER		محرم ياخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity :		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P9 OF FOOTING P1		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 370 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	pm	Concrete Volume:	51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohamed Gadouch			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	26 / 2 / 2023
Pile No.	P9	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.165	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.695
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.365

Pile Survey

Coordinates	EAST	North
Theoretical	585458.365	830454.19
Actual	585458.342	830454.213
Δ	0.023	-0.023

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.6 %

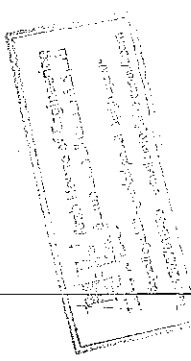
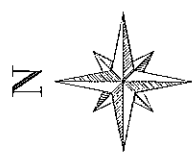
Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	26/ 2 /2023			Cleaning	—	—	—
Install Cages	26/ 2 /2023			pouring	26/ 2 /2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	22.5	21.6	20.6	20.8	22.3		
Temperature	32	29.9	30.5	30.2	28		

NOTES:
 ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED
 ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
 MERCATOR AS PER THE RECEIVED SITE SURVEY.

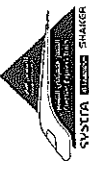


NO.	DATE	BY	REVISION
01	15/05/2022	ENG. AMR	ISSUED FOR CONSTRUCTION

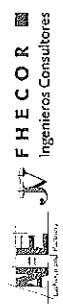
OWNER:
 جمهورية مصر العربية
 وزارة النقل
 الهيئة العامة للنقل والكباري
 مكتب القاهرة
 (Client)

NAME OF PROJECT
 ELECTRICAL EXPRESS TRANS (HIGH SPEED-ABS)
 SECTION THREE (FROM WEST OF FILE TO ALAMING)

NAME OF OWNER CONSULTANT
 SYSTEM SHAKER



NAME OF CONTRACTOR CONSULTANT
 FHECOR Ingenieros Consultores

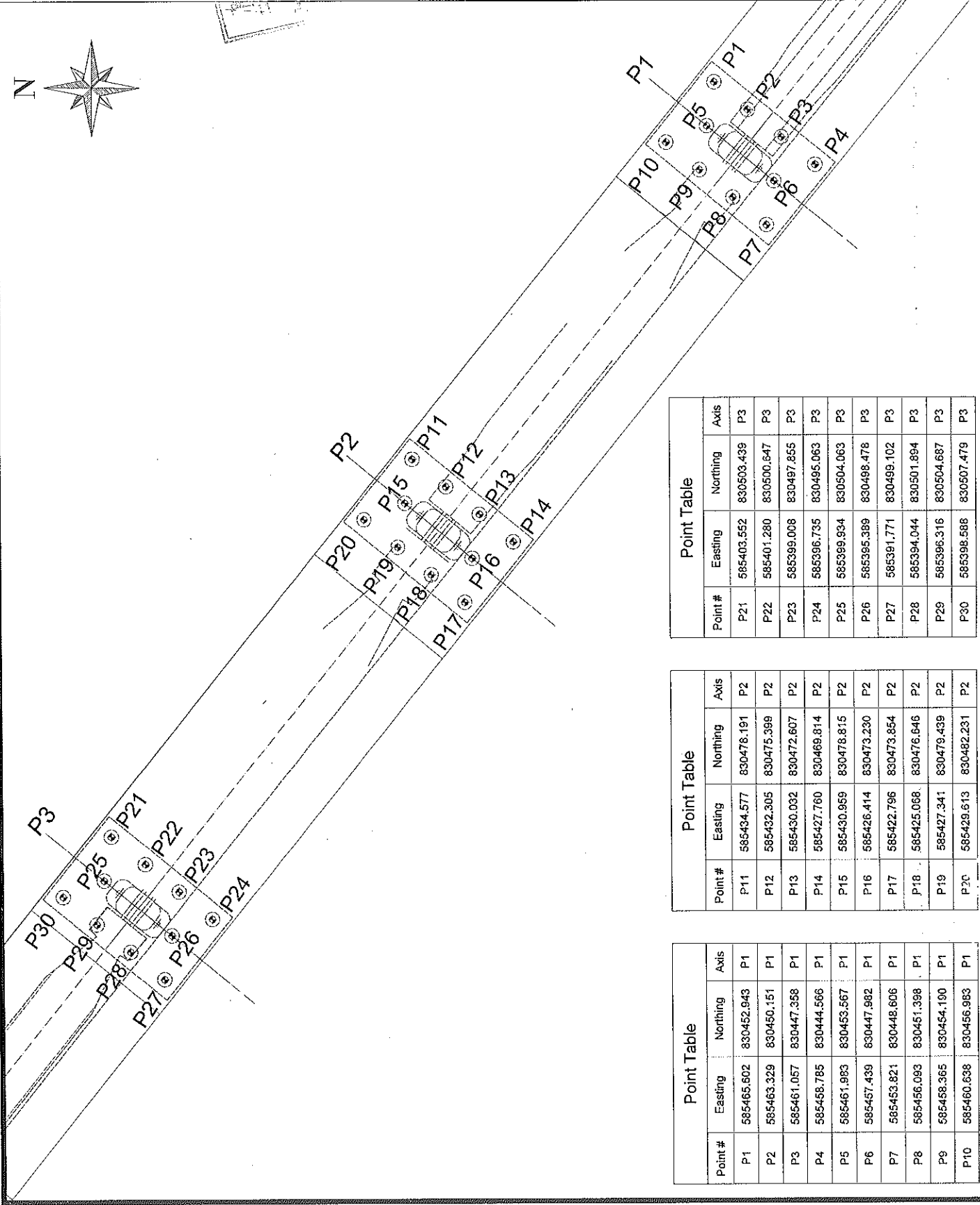


NAME CONTRACTOR



DWG. TITLE
 RECWA BRIDGE
 PILES COORDINATES FOR APPROVED AXIS
 FROM P1 - P3

DWG. NO.	PC-040	DATE	08/02/22	SCALE	1:50
DRAWN BY	ENG. AMR	DESIGNED BY	ENG. MUNIR SAMH	CHECKED BY	
SUPERVISOR			APPROVED BY		
DR. Mohamed Lashin			Eng. Jaber Taha		



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.476	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1



Al-Amal Ready mix

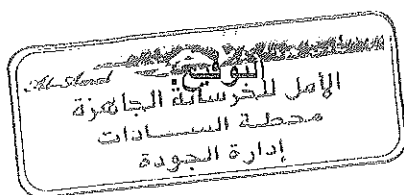
الأمل

للخرسانة الجاهزة
مركز الخرسانة الجاهزة
مركز الخرسانة الجاهزة
مركز الخرسانة الجاهزة

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 9- Pier1
Dimension : 15*15*15 cm
Date of casting : 26/02/2023
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	26/02/2023	05/03/2023	7	8.691	120300	535	487
2	26/02/2023	05/03/2023	7	8.673	109800	488	
3	26/02/2023	05/03/2023	7	8.445	98580	438	



Handwritten signature

Handwritten signature

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01066844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01020459673 - 01006680835 - 01004976497

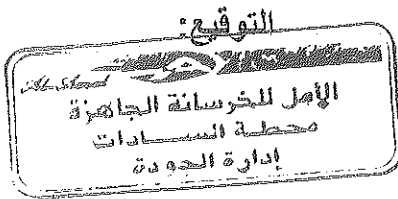
الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - فن در الشيمي - المنطقة المباشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٤١
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤١٧١١٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٠١١٧٣

E-mail: info@al-amalreadymix.com
www.al-amalreadymix.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 9- Pier1
Dimension : 15*15*15 cm
Date of casting : 26/02/2023
MIX DESIGN STRENGTH : 370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	26/02/2023	26/03/2023	28	8.513	96770	430	471
2	26/02/2023	26/03/2023	28	8.63	106500	473	
3	26/02/2023	26/03/2023	28	8.445	114700	510	



شعب

تامر سباعي

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadai City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01064978497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش. د. شيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨

موبايل : ٠١١٠١١٦٧١٧
القاهرة الجديدة - القليمانية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨١٠ - ٠١٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٥١٦
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠١١٧١١١٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٦١٧٣

البريد الإلكتروني : info@al-amalreadymix.com
البريد الإلكتروني : info@al-amalreadymix.com

REQUEST



Contractor Company			Designer Company																	
Issued by Contractor	Name Ahmed Adel	Sign 	Date 5/3/2023	Time																
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity :		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference	
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km pile P10 OF FOOTING P1
Concrete Type:	Grout Mix ☐ Lean Mix ☐ Structural Mix ☐ Grade: 370 kg/cm ²
PRESTART CHECKLIST	
IR Approved	Plant & equipment available
Mix Approved	Back up equipment available
Setting out Survey Approved	Cast in items secure
Temp Works Approved	Access route clear
Formwork Checked	Work area safe to progress
Start Time for Pour: pm	Concrete Volume: 51 m ³

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			RESULT 7-COMPRESSIVE STRENGTH OF CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Ahmed Adel			A
QA/QC				A
Employer Representative	Mohammed Gardach			A

Bored Piles Construction Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report NO.	
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	5/ 3 / 2023
Pile No.	P10	Structure	bridge	Pile Cutoff Level	—
pier	P1	Ground Level	67.03	Pile Toe Level	27.53
Theoretical Pile Length from caisson level	40.066	Water Table Level	N/A	Permanent Casting Level	N/A
Req. Drilling Length From Ground Level	39.5	Theoretical concrete Q	46.33 m3	Temporary Casting Level	67.596
Act. Drilling Length	41	Act. concrete Q	51 m3	Steel Top Level	66.33
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.266

Pile Survey

Coordinates	EAST	North
Theoretical	585460.603	5830456.914
Actual	585460.638	5830456.983
Δ	-0.035	-0.069

Bentonite Slurry Test

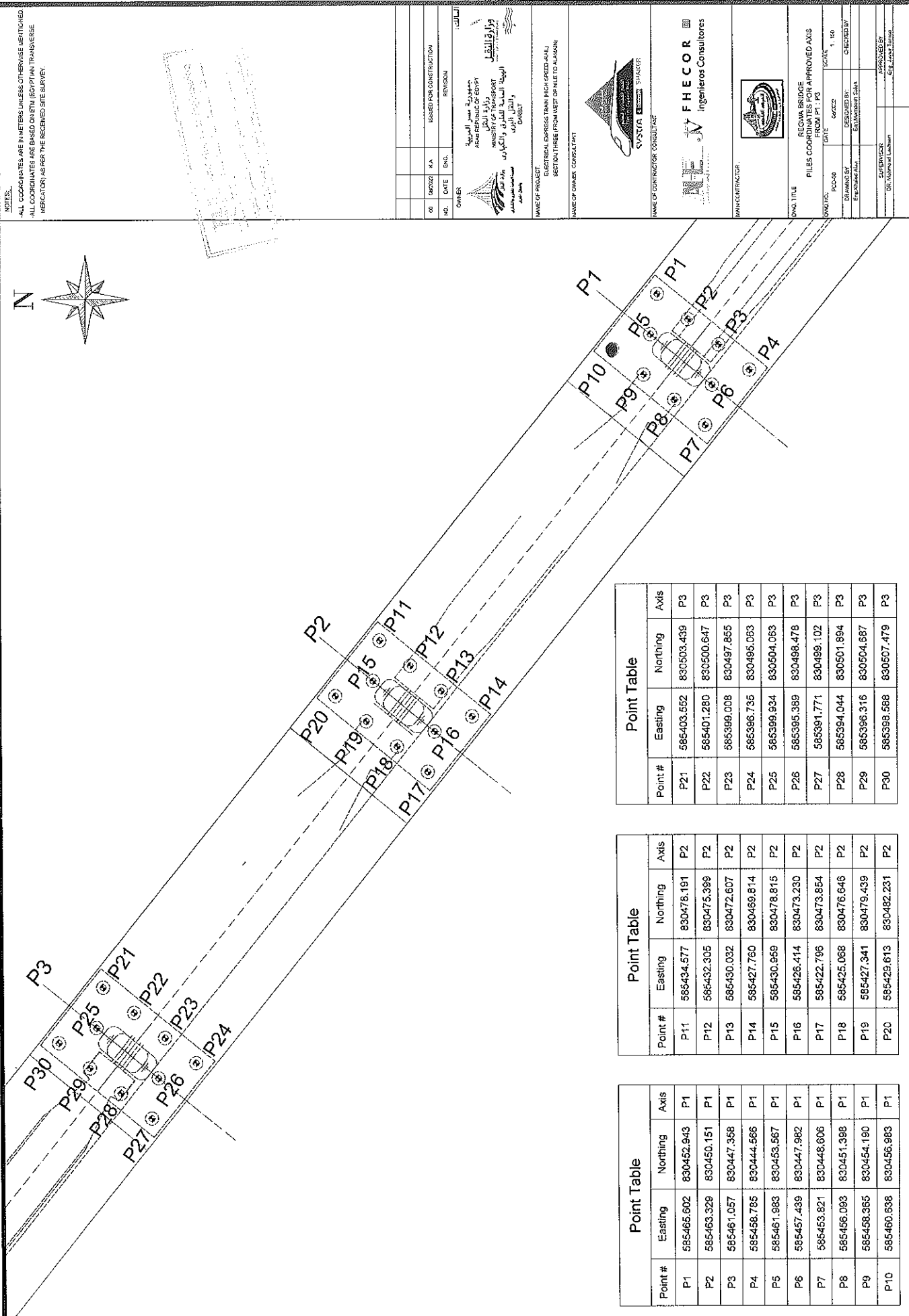
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm3)	Less Than 1.1	1.03	Less Than 1.15	1.07
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 2%	N/A	Less than 2%	1.5 %

Geotechnical Log

0	CAISSON L.
0_3	SAND
3_4	SILTY SAND
4_5	CLAY
5_8	Sand
8_9	SILTY SAND
9_10	Sand
10_13	CLAY
13_29	Sand
29_31.5	CLAY
31.5_40	Sand

Time Survey

Activity	Date	From	To	Activity	Date	From	To
Drilling	5/ 3 / 2023			Cleaning	—	—	—
Install Cages	5/ 3 / 2023			pouring	5/ 3 / 2023		
	Mixer 1	Mixer 2	Mixer 3	Mixer 4	Mixer 5		
Slump	21	20.9	22	22.6	23		
Temperature	31	29.9	30.7	31	29		



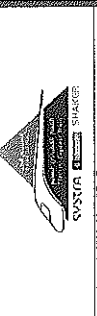
NOTES:
 -ALL COORDINATES ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 -ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE MERCATOR) AS PER THE RECEIVED SITE SURVEY.

NO.	DATE	BY	REVISION
01	06/02/2021	K.A.	ISSUED FOR CONSTRUCTION

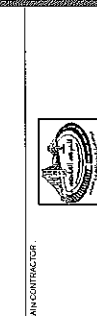
OWNER
 جمهورية مصر العربية
 وزارة النقل
 GENERAL
 MINISTRY OF TRANSPORT
 الهيئة العامة للنقل والمواصلات
 والنقل البري
 GENERAL

NAME OF PROJECT
 ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
 SECTION THREE (FROM WEST OF NAHIA TO ALMAHA)

NAME OF OWNER CONSULTANT
 CSTA SHAFER



NAME OF CONTRACTOR CONSULTANT
 FHECOR Ingenieros Consultores



FILES COORDINATES FOR APPROVED AXIS			
NO.	DATE	BY	CHECKED BY
01	06/02/2021	K.A.	1:150
02	06/02/2021	K.A.	1:150
03	06/02/2021	K.A.	1:150
04	06/02/2021	K.A.	1:150
05	06/02/2021	K.A.	1:150
06	06/02/2021	K.A.	1:150
07	06/02/2021	K.A.	1:150
08	06/02/2021	K.A.	1:150
09	06/02/2021	K.A.	1:150
10	06/02/2021	K.A.	1:150
11	06/02/2021	K.A.	1:150
12	06/02/2021	K.A.	1:150
13	06/02/2021	K.A.	1:150
14	06/02/2021	K.A.	1:150
15	06/02/2021	K.A.	1:150
16	06/02/2021	K.A.	1:150
17	06/02/2021	K.A.	1:150
18	06/02/2021	K.A.	1:150
19	06/02/2021	K.A.	1:150
20	06/02/2021	K.A.	1:150
21	06/02/2021	K.A.	1:150
22	06/02/2021	K.A.	1:150
23	06/02/2021	K.A.	1:150
24	06/02/2021	K.A.	1:150
25	06/02/2021	K.A.	1:150
26	06/02/2021	K.A.	1:150
27	06/02/2021	K.A.	1:150
28	06/02/2021	K.A.	1:150
29	06/02/2021	K.A.	1:150
30	06/02/2021	K.A.	1:150

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.318	830504.687	P3
P30	585398.588	830507.479	P3

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585463.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1



Al-Amal Ready mix



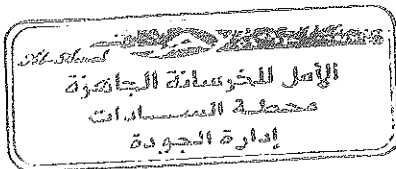
الخرسانة الجاهزة
بأسعار تنافسية
والجودة العالية

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile10 - Pier1
Dimension : 15*15*15 cm
Date of casting : 05/03/2023
MIX DESIGN STRENGTH : 370 kg/cm²

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/03/2023	09/04/2023	28	8.468	121100	538	524
2	05/03/2023	09/04/2023	28	8.509	115200	512	
3	05/03/2023	09/04/2023	28	8.535	117300	521	

التوقيع:



شعب

مدير عام

تامر ملاح

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23673307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katarnia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033880
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2636145 / Fax.: 048 2630140
01028489670 - 010688306325 - 01004978697

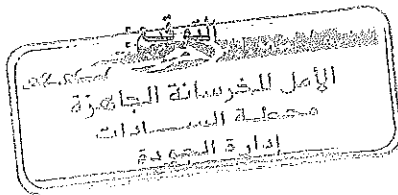
الإدارة :
محل إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفون : ٢٣٦٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
مواقع العمل :
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ش : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٢٢٧٨٥٥٥١٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٠١٠٣٣٨٦٠
مدينة السادات - المنطقة الصناعية التابعة لقطاع ٧٠٠٣ - ٧٠٠٥
ش : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٨١٥١٧٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١١٠١١٧١٦١٧

البريد الإلكتروني : info@al-amal.com
البريد الإلكتروني : info@al-amal.com

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1282

PROJECT : مشروع القطار الكهربائي السريع (كوبرى رجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile10- Pier1
Dimension : 15*15*15 cm
Date of casting : 05/03/2023
MIX DESIGN STRENGTH : 370 kg/cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/03/2023	12/03/2023	7	8.383	106200	472	421
2	05/03/2023	12/03/2023	7	8.448	84340	375	
3	05/03/2023	12/03/2023	7	8.531	93850	417	



Handwritten signature.

Handwritten signature.

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			4/9/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (11))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 30 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 1:41 pm			Concrete Volume: 51 m3	
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			4/9/2022	A



SYSTRA



Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	6
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	4/9/2022
Pile No.	P11	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.3 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.91 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	68.543
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.1

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585434.577	830478.191
Actual	585434.579	830478.177
BAUER Survivor		

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.04
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	39
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

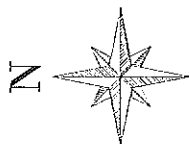
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	4/9	7:35	10:30	Cleaning	-	-	-	
Install Cages	4/9	11:10	13:05	Pouring	4/9	13:41	14:45	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:

1- ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
2- ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE MERCATOR AS PER THE RECEIVED SITE SURVEY.



P2
P20
P19
P18
P17
P16
P15
P14
P13
P12
P11

P3
P29
P28
P27
P26
P25
P24
P23
P22
P21

P1
P10
P9
P8
P7
P5
P4
P3
P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.847	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.694	P3
P29	585395.316	830504.387	P3
P30	585398.588	830507.479	P3

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

OWNER
REPUBLIC OF EGYPT
MINISTRY OF TRANSPORT
GENERAL AUTHORITY OF
CANALS AND WATERWAYS
CARETAKER

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIL (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF HELI TO AL-MAHIN)

NAME OF OWNER CONSULTANT
SWEFA ENGINEERING & SHAFER

NAME OF CONTRACTOR CONSULTANT
FHECOR Ingenieros Consultores

NAME OF CONTRACTOR
SWEFA ENGINEERING & SHAFER

DATE
1/10/2022

PROJECT TITLE
REGIMA BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM PT: P2

DATE
1/10/2022

SCALE
1:100

CHECKED BY
DR. HANAN SAH

APPROVED BY
DR. HANAN SAH



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى وادى النظرون)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 11
Dimension : 15*15*15 cm
Date of casting : 05/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	03/10/2022	28	8.638	120100	534	514
2	05/09/2022	03/10/2022	28	8.515	110800	492	
3	05/09/2022	03/10/2022	28	8.587	115800	515	

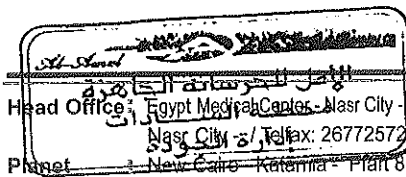
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع



Head Office : Egypt Medical Cairo - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - Tel: 26772572 - 23573307

Plant : New Cairo - Katamra - Plant 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

إيجيبت ميدكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٥ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com



Al Amal Ready mix

الأمل
للخرسانة الجاهزة والمنتجات الإسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : B11 خازوق
Dimension : 15*15*15 cm
Date of casting : 04/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

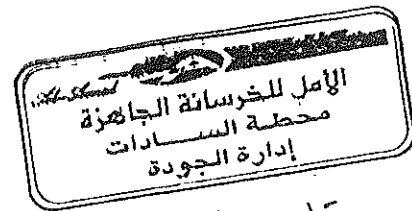
NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	04/09/2022	11/09/2022	7	8.735	103700	461	437
2	04/09/2022	11/09/2022	7	8.576	102200	454	
3	04/09/2022	11/09/2022	7	8.390	89370	397	

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

(Signature)

(Signature)

(Signature)



(Signature)

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٦٧٧٢٥٧٢ : Nasr City - / Telfax: 26772572 - 23573307
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : موقع العمل : Planet : New Cairo - Katamia - P1art 82 - 83
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩ : Tel.: 29841136 / Fax.: 29840109
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦ : 01227855596 - 01068844170 - 01006033860
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥ : El Sadat City - Industrial Zone (7) - Part 7003 - 7005
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥ : Tel.: 048 2630145 / Fax.: 048 2630140
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣ : 01028459673 - 01006880635 - 01004976497
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

- UP Salts Blends not in Stamps 20 21 22 23 24
- UP Salts Blends not in Stamps 25 26 27 28 29 30
- UP Salts Blends not in Stamps 31 32 33 34 35 36
- UP Salts Blends not in Stamps 37 38 39 40 41 42

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G. = Normal Ground Level

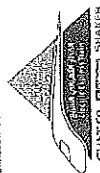
PIKE (DU) CG-01DU-1-ND1 CG	KEOWA ROAD BRIDGE GENERAL NOTES ADJUTANT 1. DEFINITION
SCALE: 1/4" CG-21D-402-ME. EZZ	SUBSTRUCTURE PIERS P1-P2, P3. REINFORCEMENT

NO.	DATE	END.	REVISION
0	31-07-2021	MAS	ISSUED FOR CONSTRUCTION AS PER REVIEW NOTICE No. 104#

[illegible]

NAME OF PROJECT: CLEVELAND EXPRESS (RAIN (HIGH SPEED -RAIL)
SECTION THREE (FROM WEST OF NILE TO ALABAMA)

THEY HESITATED TO SPEAK



NAME OF CONTRACTOR CONSULTANT:

FHECOR
Ingenieros Consultores

• HUKUM HUKUM



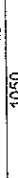
OSG FILE

MODIFICATION OF THE MODEL

PILE REINFORCEMENT BARS SHOP DRAWING

DATE	08-23-92	LOCAL	AS SHOWN
RECEIVED BY:	ENG. Abdullah Mubarek	RECEIVED BY:	ENG. Abdullah Mubarek
DRAWING NO.	PROJ-001-001-11-001 PLE-00	DATE	08-23-92
DRAWING BY:	ENG. Edgardo Fuenmayor	RECEIVED BY:	ENG. Abdullah Mubarek
APPROVED BY:	APPROVED BY:	DATE	08-23-92
SUPERVISOR:	SUPERVISOR:	RECEIVED BY:	ENG. Abdullah Mubarek
DATE	08-23-92	LOCAL	AS SHOWN

Arabi House of Engineering
 الشركة العربية لمهندسي
 ١٩٨٤ - ١٩٨٥
 ١٩٨٥ - ١٩٨٦
 ١٩٨٦ - ١٩٨٧
 ١٩٨٧ - ١٩٨٨
 ١٩٨٨ - ١٩٨٩
 ١٩٨٩ - ١٩٩٠
 ١٩٩٠ - ١٩٩١
 ١٩٩١ - ١٩٩٢
 ١٩٩٢ - ١٩٩٣
 ١٩٩٣ - ١٩٩٤
 ١٩٩٤ - ١٩٩٥
 ١٩٩٥ - ١٩٩٦
 ١٩٩٦ - ١٩٩٧
 ١٩٩٧ - ١٩٩٨
 ١٩٩٨ - ١٩٩٩
 ١٩٩٩ - ٢٠٠٠
 ٢٠٠٠ - ٢٠٠١
 ٢٠٠١ - ٢٠٠٢
 ٢٠٠٢ - ٢٠٠٣
 ٢٠٠٣ - ٢٠٠٤
 ٢٠٠٤ - ٢٠٠٥
 ٢٠٠٥ - ٢٠٠٦
 ٢٠٠٦ - ٢٠٠٧
 ٢٠٠٧ - ٢٠٠٨
 ٢٠٠٨ - ٢٠٠٩
 ٢٠٠٩ - ٢٠١٠
 ٢٠١٠ - ٢٠١١
 ٢٠١١ - ٢٠١٢
 ٢٠١٢ - ٢٠١٣
 ٢٠١٣ - ٢٠١٤
 ٢٠١٤ - ٢٠١٥
 ٢٠١٥ - ٢٠١٦
 ٢٠١٦ - ٢٠١٧
 ٢٠١٧ - ٢٠١٨
 ٢٠١٨ - ٢٠١٩
 ٢٠١٩ - ٢٠٢٠
 ٢٠٢٠ - ٢٠٢١
 ٢٠٢١ - ٢٠٢٢
 ٢٠٢٢ - ٢٠٢٣
 ٢٠٢٣ - ٢٠٢٤
 ٢٠٢٤ - ٢٠٢٥
 ٢٠٢٥ - ٢٠٢٦
 ٢٠٢٦ - ٢٠٢٧
 ٢٠٢٧ - ٢٠٢٨
 ٢٠٢٨ - ٢٠٢٩
 ٢٠٢٩ - ٢٠٣٠
 ٢٠٣٠ - ٢٠٣١
 ٢٠٣١ - ٢٠٣٢
 ٢٠٣٢ - ٢٠٣٣
 ٢٠٣٣ - ٢٠٣٤
 ٢٠٣٤ - ٢٠٣٥
 ٢٠٣٥ - ٢٠٣٦
 ٢٠٣٦ - ٢٠٣٧
 ٢٠٣٧ - ٢٠٣٨
 ٢٠٣٨ - ٢٠٣٩
 ٢٠٣٩ - ٢٠٤٠
 ٢٠٤٠ - ٢٠٤١
 ٢٠٤١ - ٢٠٤٢
 ٢٠٤٢ - ٢٠٤٣
 ٢٠٤٣ - ٢٠٤٤
 ٢٠٤٤ - ٢٠٤٥
 ٢٠٤٥ - ٢٠٤٦
 ٢٠٤٦ - ٢٠٤٧
 ٢٠٤٧ - ٢٠٤٨
 ٢٠٤٨ - ٢٠٤٩
 ٢٠٤٩ - ٢٠٥٠
 ٢٠٥٠ - ٢٠٥١
 ٢٠٥١ - ٢٠٥٢
 ٢٠٥٢ - ٢٠٥٣
 ٢٠٥٣ - ٢٠٥٤
 ٢٠٥٤ - ٢٠٥٥
 ٢٠٥٥ - ٢٠٥٦
 ٢٠٥٦ - ٢٠٥٧
 ٢٠٥٧ - ٢٠٥٨
 ٢٠٥٨ - ٢٠٥٩
 ٢٠٥٩ - ٢٠٦٠
 ٢٠٦٠ - ٢٠٦١
 ٢٠٦١ - ٢٠٦٢
 ٢٠٦٢ - ٢٠٦٣
 ٢٠٦٣ - ٢٠٦٤
 ٢٠٦٤ - ٢٠٦٥
 ٢٠٦٥ - ٢٠٦٦
 ٢٠٦٦ - ٢٠٦٧
 ٢٠٦٧ - ٢٠٦٨
 ٢٠٦٨ - ٢٠٦٩
 ٢٠٦٩ - ٢٠٧٠
 ٢٠٧٠ - ٢٠٧١
 ٢٠٧١ - ٢٠٧٢
 ٢٠٧٢ - ٢٠٧٣
 ٢٠٧٣ - ٢٠٧٤
 ٢٠٧٤ - ٢٠٧٥
 ٢٠٧٥ - ٢٠٧٦
 ٢٠٧٦ - ٢٠٧٧
 ٢٠٧٧ - ٢٠٧٨
 ٢٠٧٨ - ٢٠٧٩
 ٢٠٧٩ - ٢٠٨٠
 ٢٠٨٠ - ٢٠٨١
 ٢٠٨١ - ٢٠٨٢
 ٢٠٨٢ - ٢٠٨٣
 ٢٠٨٣ - ٢٠٨٤
 ٢٠٨٤ - ٢٠٨٥
 ٢٠٨٥ - ٢٠٨٦
 ٢٠٨٦ - ٢٠٨٧
 ٢٠٨٧ - ٢٠٨٨
 ٢٠٨٨ - ٢٠٨٩
 ٢٠٨٩ - ٢٠٩٠
 ٢٠٩٠ - ٢٠٩١
 ٢٠٩١ - ٢٠٩٢
 ٢٠٩٢ - ٢٠٩٣
 ٢٠٩٣ - ٢٠٩٤
 ٢٠٩٤ - ٢٠٩٥
 ٢٠٩٥ - ٢٠٩٦
 ٢٠٩٦ - ٢٠٩٧
 ٢٠٩٧ - ٢٠٩٨
 ٢٠٩٨ - ٢٠٩٩
 ٢٠٩٩ - ٢١٠٠
 ٢١٠٠ - ٢١٠١
 ٢١٠١ - ٢١٠٢
 ٢١٠٢ - ٢١٠٣
 ٢١٠٣ - ٢١٠٤
 ٢١٠٤ - ٢١٠٥
 ٢١٠٥ - ٢١٠٦
 ٢١٠٦ - ٢١٠٧
 ٢١٠٧ - ٢١٠٨
 ٢١٠٨ - ٢١٠٩
 ٢١٠٩ - ٢١١٠
 ٢١١٠ - ٢١١١
 ٢١١١ - ٢١١٢
 ٢١١٢ - ٢١١٣
 ٢١١٣ - ٢١١٤
 ٢١١٤ - ٢١١٥
 ٢١١٥ - ٢١١٦
 ٢١١٦ - ٢١١٧
 ٢١١٧ - ٢١١٨
 ٢١١٨ - ٢١١٩
 ٢١١٩ - ٢١٢٠
 ٢١٢٠ - ٢١٢١
 ٢١٢١ - ٢١٢٢
 ٢١٢٢ - ٢١٢٣
 ٢١٢٣ - ٢١٢٤
 ٢١٢٤ - ٢١٢٥
 ٢١٢٥ - ٢١٢٦
 ٢١٢٦ - ٢١٢٧
 ٢١٢٧ - ٢١٢٨
 ٢١٢٨ - ٢١٢٩
 ٢١٢٩ - ٢١٣٠
 ٢١٣٠ - ٢١٣١
 ٢١٣١ - ٢١٣٢
 ٢١٣٢ - ٢١٣٣
 ٢١٣٣ - ٢١٣٤
 ٢١٣٤ - ٢١٣٥
 ٢١٣٥ - ٢١٣٦
 ٢١٣٦ - ٢١٣٧
 ٢١٣٧ - ٢١٣٨
 ٢١٣٨ - ٢١٣٩
 ٢١٣٩ - ٢١٤٠
 ٢١٤٠ - ٢١٤١
 ٢١٤١ - ٢١٤٢
 ٢١٤٢ - ٢١٤٣
 ٢١٤٣ - ٢١٤٤
 ٢١٤٤ - ٢١٤٥
 ٢١٤٥ - ٢١٤٦
 ٢١٤٦ - ٢١٤٧
 ٢١٤٧ - ٢١٤٨
 ٢١٤٨ - ٢١٤٩
 ٢١٤٩ - ٢١٥٠
 ٢١٥٠ - ٢١٥١
 ٢١٥١ - ٢١٥٢
 ٢١٥٢ - ٢١٥٣
 ٢١٥٣ - ٢١٥٤
 ٢١٥٤ - ٢١٥٥
 ٢١٥٥ - ٢١٥٦
 ٢١٥٦ - ٢١٥٧
 ٢١٥٧ - ٢١٥٨
 ٢١٥٨ - ٢١٥٩
 ٢١٥٩ - ٢١٦٠
 ٢١٦٠ - ٢١٦١
 ٢

BAR MARK	BAR DIA.	SYMBOL(mm.)	NUMBER QTY	LENGTH (mm.)	TOTAL WEIGHT (Kg)
01	32		24	12000	1820.44
02	25		24	12000	1111.11
03	25		24	12000	1111.11
04	22		24	6400	458.90
05	16		4+1	12000 + 3096	75.85 + 4.89
06	16		13+1	12000 + 6576	246.51 + 10.39
07	12		5+1	12000 + 4848	53.33 + 4.30
08	12		19+1	12000 + 10584	202.66 + 9.40
09	12		20+1	12000 + 9072	213.33 + 8.01
10	12		9+1	12000 + 11292	96.00 + 10.03
11	22		24	3300	236.62

Total 5672.88

Pile Diameter	Ø12	Ø16	Ø22	Ø25	Ø32
TOTAL LENGTH(M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.

REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			14/9/2022								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (12))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade: 30 kg/cm ²			
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour: 6:15 pm	Concrete Volume: 51 m3		

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			14/9/2022	A



BAUER EGYPT



SYSTRA

ACE CONSULTING ENGINEERS
MOHAMMAD BAKHOUN

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	16
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	14/9/2022
Pile No.	P12	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.18 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	38.91 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	68.42
Act. Drilling Length	41 m	Act. Concrete Q	51m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.98

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585432.305	830475.399
Actual	585432.308	830475.409
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

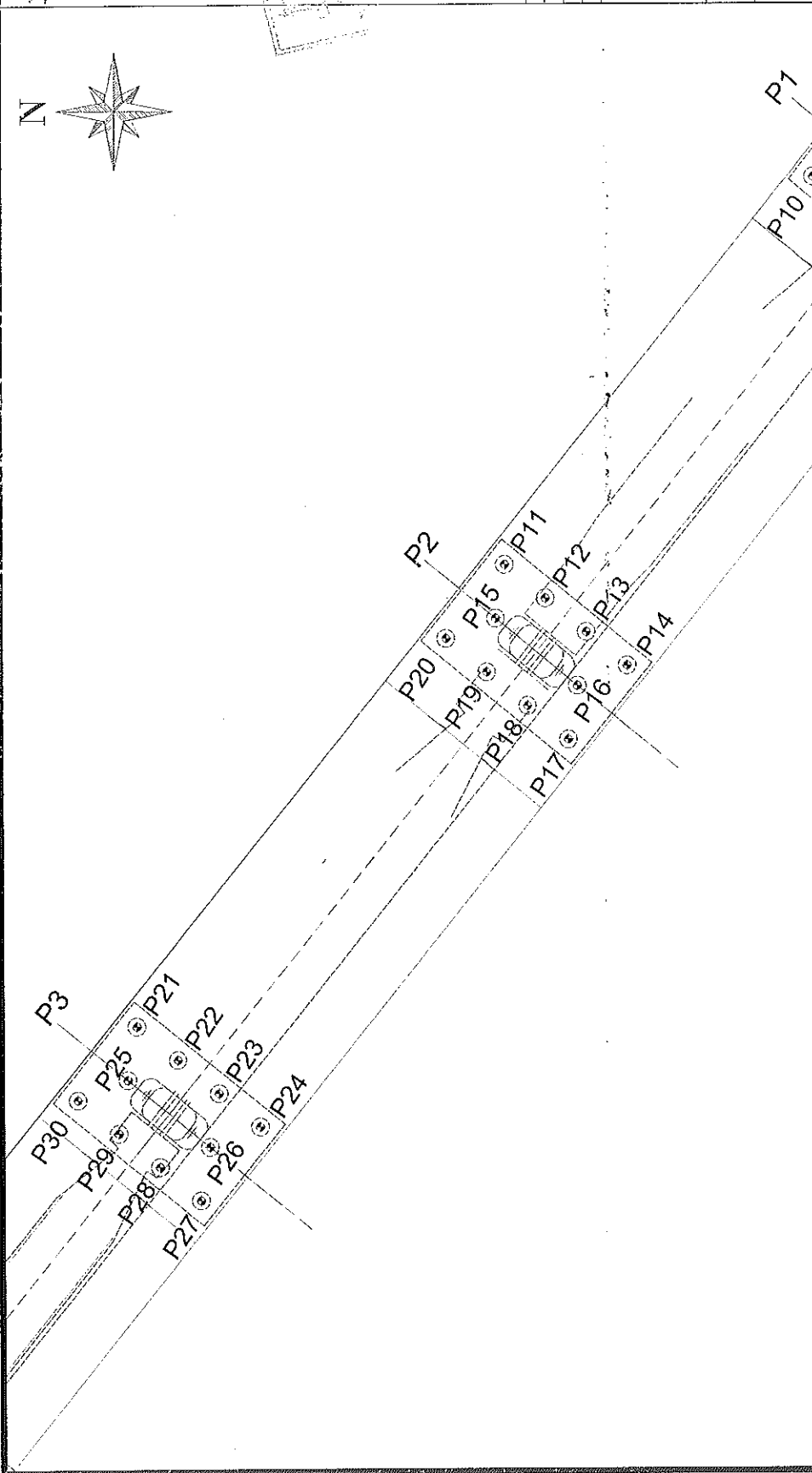
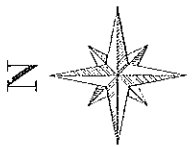
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	14/9	11:30	14:21	Cleaning	-	-	-	
Install Cages	14/9	13:37	17:26	Pouring	14/9	18:15	19:20	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED
ALL COORDINATES ARE BASED ON ETM EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.



Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585395.008	830497.855	P3
P24	585395.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585395.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

OWNER		REGION	
NO.	DATE	ISSUED FOR CONSTRUCTION	REVISION
01	01/01/2022	ASAP	01
PROJECT		PROJECT	
ELECTRICAL SURVEYS FROM 1980 TO 2020 AND		SECTION THREE FROM WEST OF PILE TO A. 10.00	
NAME OF OWNER CONSULTANT		NAME OF CONTRACTOR CONSULTANT	
SYSTEM ENGINEERING		SYSTEM ENGINEERING	
FHECOR Ingenieros Consultores		FHECOR Ingenieros Consultores	
NAME OF CONTRACTOR		NAME OF CONTRACTOR	
REGIONAL BRIDGE		REGIONAL BRIDGE	
FROM P1 - P3		FROM P1 - P3	
DATE		DATE	
01/01/2022		01/01/2022	
DRAWN BY		DRAWN BY	
Engr. Mohamed Elmaghrabi		Engr. Mohamed Elmaghrabi	
CHECKED BY		CHECKED BY	
Engr. Mohamed Elmaghrabi		Engr. Mohamed Elmaghrabi	
APPROVED BY		APPROVED BY	
Engr. Mohamed Elmaghrabi		Engr. Mohamed Elmaghrabi	

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B12
Dimension : 15*15*15 cm
Date of casting : 14/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

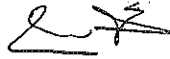
NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	14/09/2022	12/10/2022	28	8.481	121100	538	566
2	14/09/2022	12/10/2022	28	8.532	126800	564	
3	14/09/2022	12/10/2022	28	8.564	134200	596	

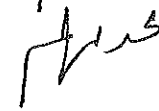
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عرابى
مدير المصنع





تامر الحام

الأمل للخرسانة الجاهزة
محطة السادات
إدارة الجودة

Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٠ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

الإدارة

موقع العمل



Al-Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م
رأس المال المصرى ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B12
Dimension : 15*15*15 cm
Date of casting : 14/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	14/09/2022	21/09/2022	7	8.706	93270	415	496
2	14/09/2022	21/09/2022	7	8.652	115900	515	
3	14/09/2022	21/09/2022	7	8.609	125300	557	

التوقيع:
مهندس / أحمد عربى
مدير المصنع

الاستشارى
[Signature]

جودة المشروع
[Signature]

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

[illegible]

ABBREVIATION:

-T.O.A = Top of Asphalt
-T.O.C = Top of Column
-T.O.P = Top of Pile Cap/Pile
-T.O.B = Top of Bearing
-T.O.F = Top of Frame
-N.G.L = Normal Ground Level

REGINA ROAD BRIDGE	CC:010101-001
GARBRIEL NOTES	
ADDITIONAL DESCRIPTION	
REGINA ROAD BRIDGE	CC:010102-001
SUBSTRUCTURE	

Arab House of Engineering
Tel: 02027934135

NO.	DATE	BY	REVISION
1	3-10-60	WMS	REVISION FOR CORRECTIONS AS PER INVENTORY
			PROJECT NO. 1049


 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 الهيئة العامة للطرق والكباري
 والطان النهري
 (General)

RELEVANT EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM WEST OF NILE TO ALAMAH)



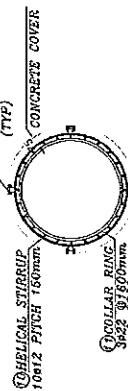
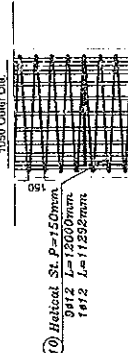
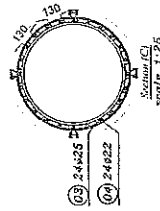
WATER CLOSET

AV
FHECOR 
Ingenieros Consultores



PILE REINFORCEMENT BILLS SHOW DRAWING		SOURCE:	
DWG NO.	DATE:		
PROJECT NO.: SP-108096(LEAD)	DD-2022	AS SHOWN	
DRAWING BY:	CHECKED BY:	REVISED BY:	
EKO, Gopal Pareek	EKO, Abhishek Mishra	EKO, Manoj Kumar Sahu	

ENIG, Stephen Kelsey	ENIG, Abdulhadi Adnan	ENIG, Muhammad Ismail
<i>[Signature]</i>		<i>ms</i>
SUPERVISOR:		
DR. Muhammad Laith		
APPROVED BY:		
Eng. Jaber Taha		



REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			19/9/2022								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (13))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐
Grade:	330 kg/cm ²		
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	4 pm	Concrete Volume:	51 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			19/9/2022	A

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	20
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	19/9/2022
Pile No.	P13	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.08 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	38.91 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	68.322
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.88

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585430.032	830472.607
Actual	585430.043	830472.625
BAUER Survivor		

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.06
Viscosity(Sec.)	30:70 Sec.	33	≤90 Sec.	37
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Geotechnical Log

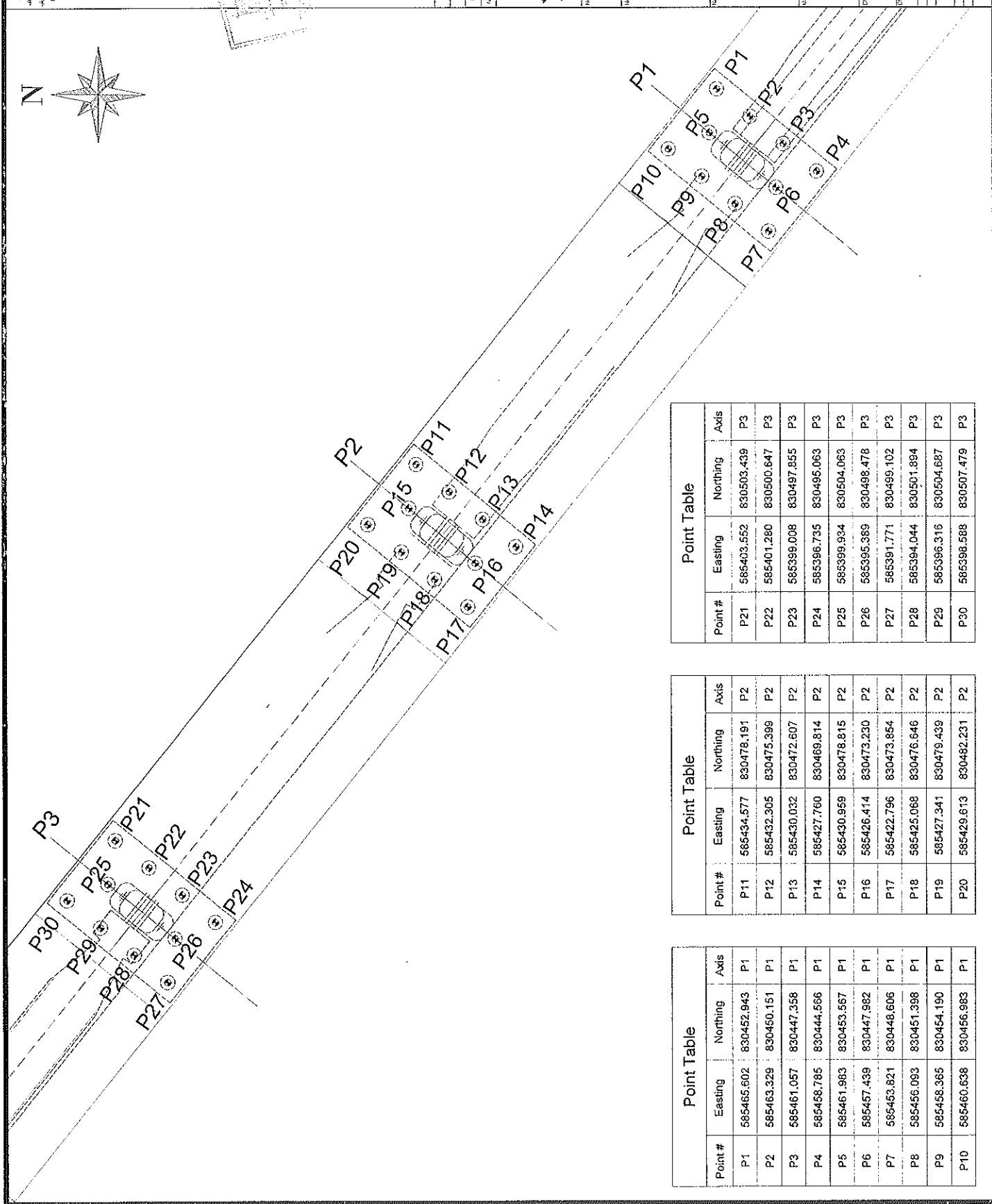
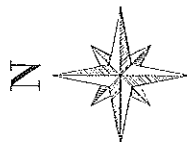
0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	19/9	6:00	9:00	Cleaning	-	-	-	
Install Cages	19/9	12:00	15:10	Pouring	19/9	16:00	17:00	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON THE EGYPTIAN TRANSVERSE
MERGATOR) AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.962	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Point Table		
Point #	Easting	Northing
P11	585434.577	830478.191
P12	585432.305	830475.399
P13	585430.032	830472.607
P14	585427.760	830469.814
P15	585430.959	830478.815
P16	585426.414	830473.230
P17	585422.796	830473.854
P18	585425.068	830476.646
P19	585427.341	830479.439
P20	585429.613	830482.231

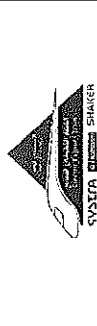
Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.459	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.598	830507.479	P3

NO.	DATE	ENG.	ISSUED FOR CONSTRUCTION
10	02/02/2002		
			REVISION
11/11/11 11/11/11			


جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والكابري
والنقل البري
وزارة النقل
مصر العربية

NAME OF PROJECT:
ELECTRICAL EXPRESS TRAIN HIGH SPEED RAIL,
SECTION THREE (FROM WEST OF NEE TO ALABAMA)

BOARD OF CANCER CONSULTANT



NAME OF CONTRACTOR/CONSULTANT

FEV
Ingenieros Consultores



NO.	TITLE
	REGWA BRIDGE

PILES COORDINATES FOR APPROVED AXIS
FROM P1 : P3

NO. NO.	DATE	QUANTITY	PRICE

DRAWING BY	DESIGNED BY	CHECKED BY
Eng. Khalid Alsa	Eng. Mansour Saleh	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م.
رأس المال المزدحم به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B13
Dimension : 15*15*15 cm
Date of casting : 19/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	19/09/2022	26/09/2022	7	8.505	91240	406	466
2	19/09/2022	26/09/2022	7	8.546	113800	506	
3	19/09/2022	26/09/2022	7	8.658	109400	486	

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

الاستشارى
[Signature]

جودة المشروع
[Signature]

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi St. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83

Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت: ٢٩٨٤١١٣٦ / ف: ٢٩٨٤١٠٩٠
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت: ٠٤٨ / ٢٦٣٠١٤٥ - ف: ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B13
Dimension : 15*15*15 cm
Date of casting : 19/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	19/09/2022	17/10/2022	28	8.498	136400	606	633
2	19/09/2022	17/10/2022	28	8.537	142500	633	
3	19/09/2022	17/10/2022	28	8.599	148600	660	

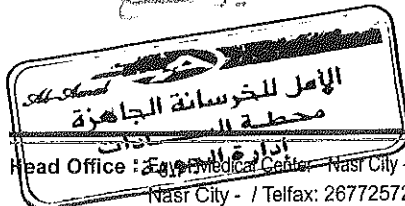
التوقيع:

الاستشارى

جودة المشروع

مهندس / احمد عمر ابى

مدير المصنع



الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٦٧٧٢٥٧٢ : Nasr City - / Telfax: 26772572 - 23573307
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : Planet : New Cairo - Katamia - Pfar 82 - 83
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩ : Tel.: 29841136 / Fax.: 29840109
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٧٧٨٥٥٥٩٦ : 01227855596 - 01068844170 - 01006033860
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٥ - ٧٠٠٣ : El Sadat City - Industrirel Zone (7) - Part 7003 - 7005
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥ : Tel.: 048 2630145 / Fax.: 048 2630140
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣ : 01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

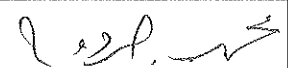
REQUEST to POUR CONCRETE



Contractor Company			Designer Company	
Issued by Contractor	Name	Sign	Date	Time
			5/9/2022	
Received by ER		محرم باخوم	CON	
Contractor Reference	النيل العامة			

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (14))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 370 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 7:02 pm			Concrete Volume: 51 m ³	
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			5/9/2022	A



EGYPT



SYSTEMA

ACE CONSULTING ENGINEERS
MOHAB RAM BAKHOM

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	8
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	5/9/2022
Pile No.	P14	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.21 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	38.91 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	68.453
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2 m

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585427.760	830469.814
Actual	585427.772	830469.817
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

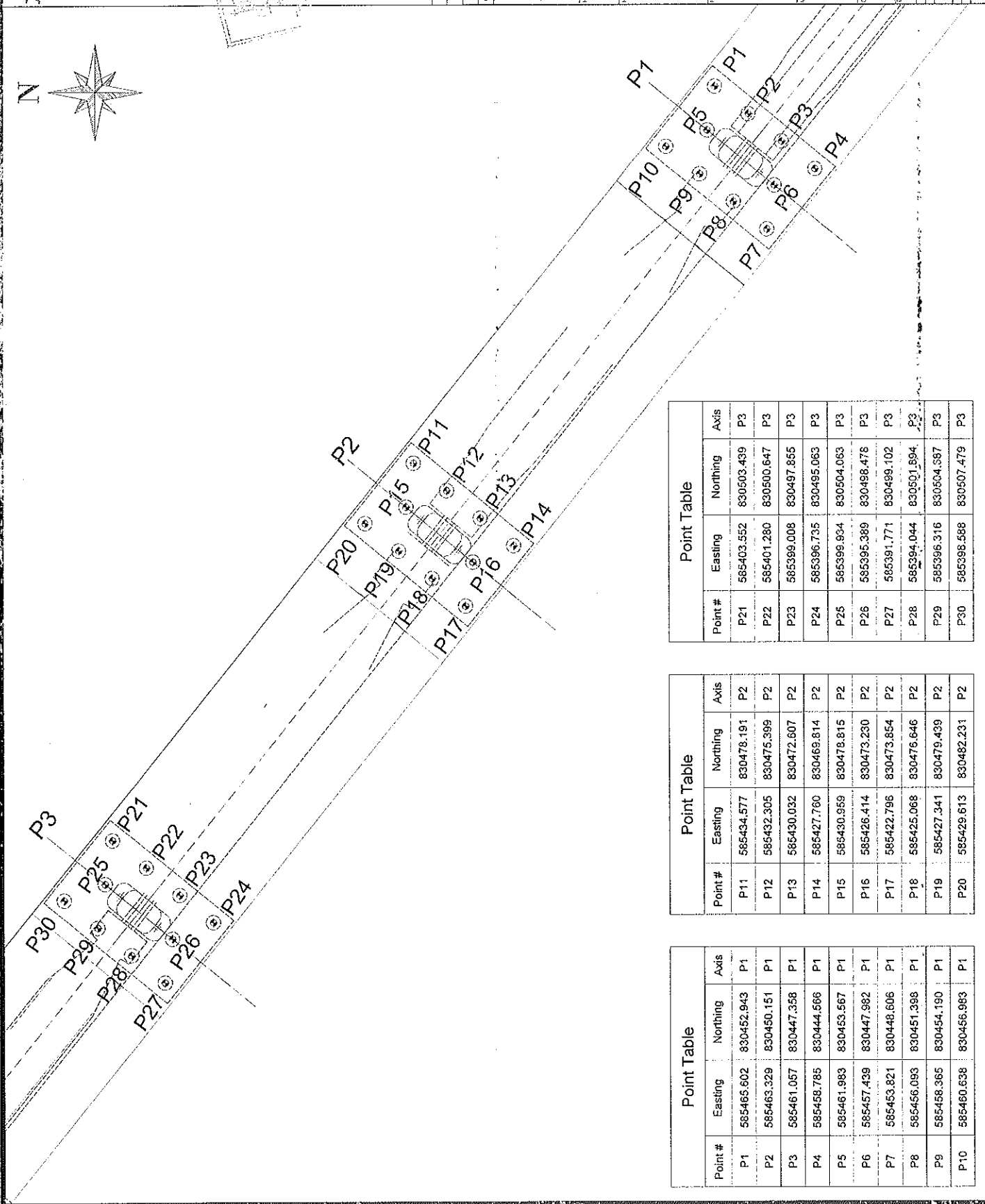
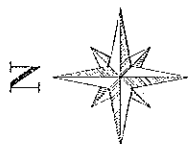
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.03	Less Than 1.5	1.06
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	40
Sand Content %	Less than 4%	N/A	Less than 2%	1

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	5/9	10:22	15:28	Cleaning	-	-	-	
Install Cages	5/9	16:50	18:07	Pouring	5/9	19:02	20:05	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR), AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.993	830453.567	P1
P6	585457.439	830447.392	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.083	P3
P26	585396.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.587	P3
P30	585398.588	830507.479	P3

NO.	TITLE	DWG NO.	DATE	SCALE	PROJECT BY	CHECKED BY
	BESINA BRIDGE PILES COORDINATES FOR APPROVED AXIS FROM P1-P3	P0-002	6/08/22	1 : 10	DESIGNED BY Engr. Ramez Saleh	APPROVED BY Engr. Ahmed Samir
	SUPPLEMENTARY					
	CR. Mahmoud Elwan					

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

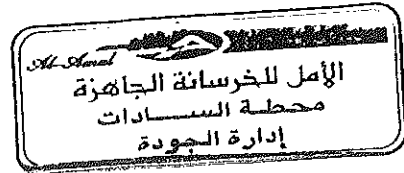
PROJECT : مشروع القطار الكهربائى السريع (كوبرى وادى النطرون)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B14
Dimension : 15*15*15 cm
Date of casting : 05/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	12/09/2022	7	8.440	103700	461	454
2	05/09/2022	12/09/2022	7	8.580	107300	477	
3	05/09/2022	12/09/2022	7	8.382	95780	426	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

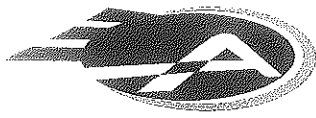
مركز هليوبوليس



تأشير العام

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : ٢٣٥٧٢٣٠٧ - ٢٦٧٧٢٥٧٢
Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307
Planet : New Cairo - Katamia - Pfar 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrirel Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥ : ٠٤٨ / ٢٦٣٠١٤٥ / ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : B14 خازوق
Dimension : 15*15*15 cm
Date of casting : 04/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	04/09/2022	02/10/2022	28	8.647	121900	542	524
2	04/09/2022	02/10/2022	28	8.659	117600	523	
3	04/09/2022	02/10/2022	28	8.477	114000	507	

التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عرابى

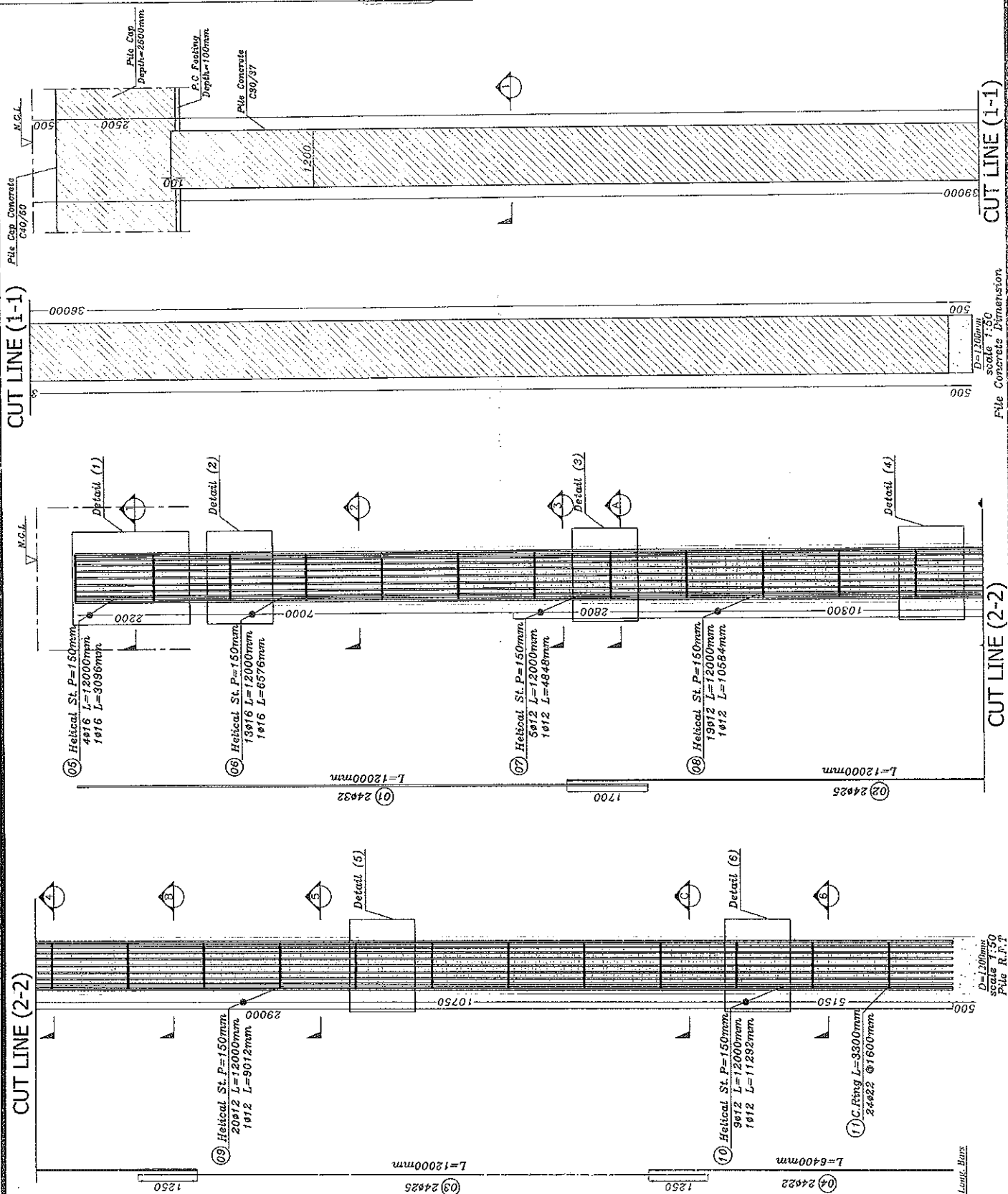
مدير المصنع

توقيع

توقيع

توقيع

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧).
Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٥ - ٧٠٠٣
El Sadat City - Industreial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
٠٤٨ / ٢٦٣٠١٤٥ : فاكس : ٠٤٨ / ٢٦٣٠١٤٥
01028459673 - 01006880635 - 01004976497
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



APPENDIX 1

[illegible]

ABBREVIATION :

-T.O.A = Top of Asphalt
-T.O.C = Top of Column
-T.O.P = Top of Pile Cap/Pile
-T.O.B = Top of Belling
-T.O.F = Top of Frame
N.G. = Above Ground Level

LINE NO	CC	NO	501	NOT	EQ2	HEGWA ROAD BRIDGE	GENERAL NOTES	ADJUTANT 3, DEFINITION
EQ2	ND001	CC	210	402	PHE	EQ2	SUBSTRUCTURE	HEGWA ROAD BRIDGE
PHE	PI1	P2	P1	REINFORCE				

PAPER IN POLYMER DISPERSED IN

Am2 House of Engineering

Tel : 2927604835 e-mail : info@am2house.com

0	3/16/2004	MASS	ISSUED FOR CONSTRUCTION AND PERMITS REVIEW NO FILE NO. 2009
---	-----------	------	--

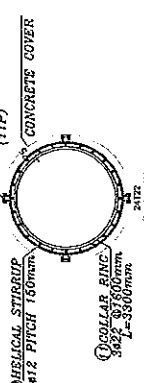
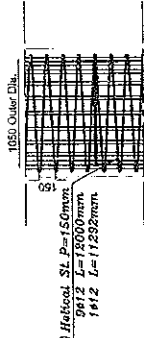
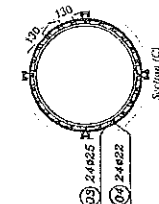
NO.	DATE	ENG.	MY-VISION
OWNER:			
 جمهورية مصر العربية ARAB REPUBLIC OF EGYPT وزارة النقل MINISTRY OF TRANSPORT الهيئة العامة للطرق والكباري والنقل البري QADARLT			

NAME OF PROJECT: ELECTRICAL EXPANSION HIGH SPEED RAIL
SECTION THREE: PROJECT OF NILE TO ALABAMA
NAME OF OWNER/CONSULTANT:



Pyramid of Giza

NAME OF CONTRACTOR CONSULTANT:

[illegible]

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			11/9/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (15))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐ Grade: 350 kg/cm ²
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour: 9:20 pm	Concrete Volume: 51 m3		

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			11/9/2022	A



BAUER EGYPT



SYSTRA

ACE CONSULTING ENGINEERS
MOHARRAM BARIQUM

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	12
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	11/9/2022
Pile No.	P15	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.16 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	38.91 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	68.396
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.96

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585430.959	830478.815
Actual	585430.951	830478.827
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

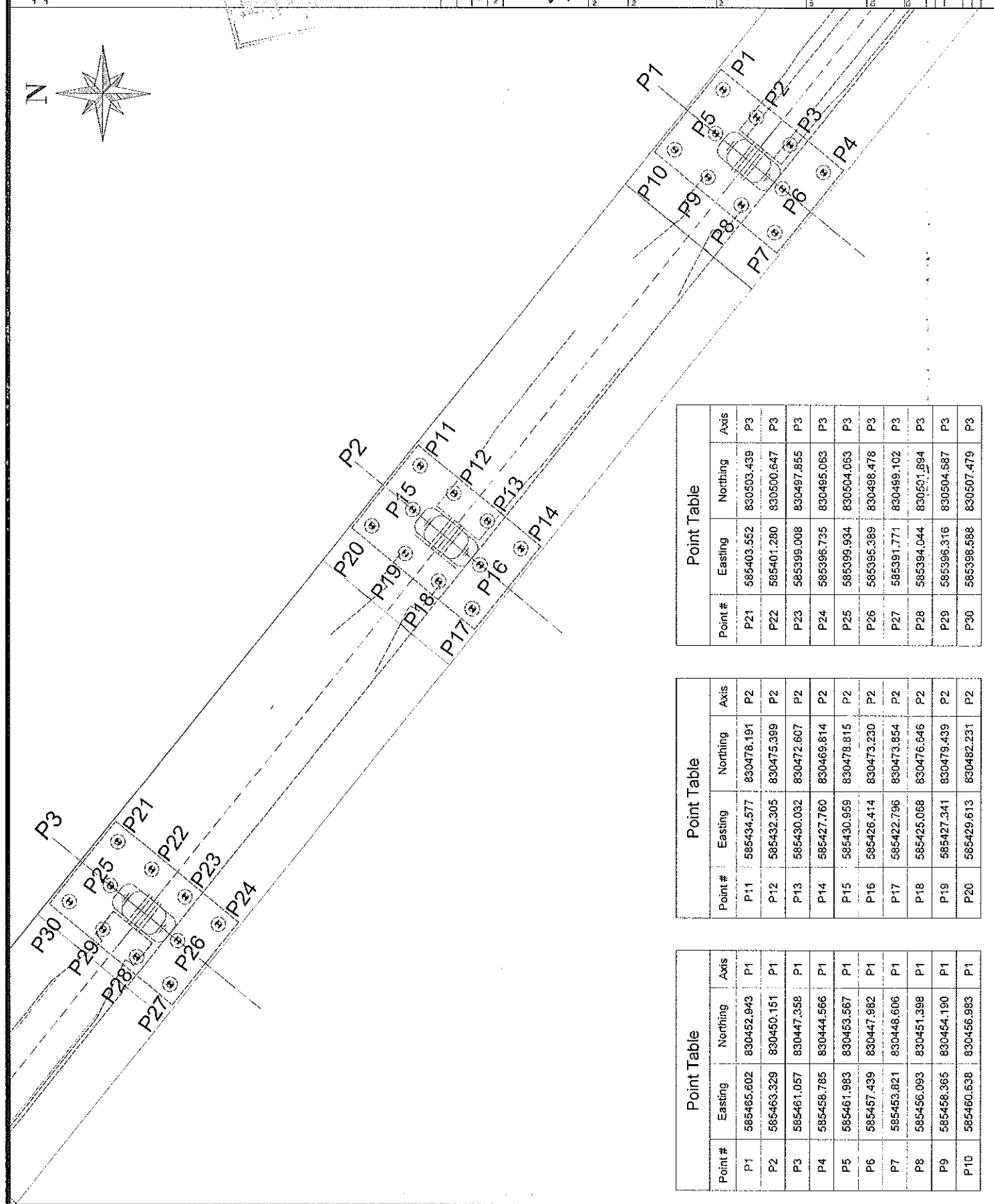
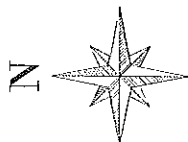
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	11/9	14:15	19:00	Cleaning	-	-	-	
Install Cages	11/9	20:00	20:50	Pouring	11/9	21:20	22:30	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.



REV	DATE	BY	DESCRIPTION
00	04/20/12	K.A.	ISSUED FOR CONSTRUCTION

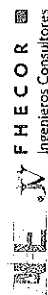
CIVILIAN	السلطنة سلطنة عمان سلطنة عمان سلطنة عمان
ARAB REPUBLIC OF EGYPT جمهورية مصر العربية	وزارة النقل المهنية العامة للنقل والكباري والنقل الجوي
EGYPT	السلك

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF NILE TO ALABAMA)

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR: CONSULTANT



MINI CONTRACTOR



36. Title

REGINA BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM P1 : P3

PC-40	DATE	6/6/2022	SCALE	1 1/2
Lawrence J. Oy	DESIGNED BY	Engr. Mahmoud Salah	CHECKED BY	
Engr. Shafiq Ali				
SUPERVISOR			APPROVED BY	
Mr. Mahmoud Elwan			Engr. Ahmed Elwan	

Point Table			
Point #	Easting	Northing	Axis
P1	585455.602	830452.943	P1
P2	585453.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585451.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.538	830456.993	P1

Point Table			
Point #	Easting	Northing	Axis
P-11	585434.577	830478.191	P2
P-12	585432.305	830475.389	P2
P-13	585430.032	830472.607	P2
P-14	585427.760	830469.814	P2
P-15	585430.989	830478.815	P2
P-16	585426.414	830473.230	P2
P-17	585422.796	830473.854	P2
P-18	585425.068	830476.646	P2
P-19	585427.341	830479.439	P2
P-20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830495.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.587	P3
P30	585398.588	830507.479	P3



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B15
Dimension : 15*15*15 cm
Date of casting : 11/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	11/09/2022	09/10/2022	28	8.456	127100	565	580
2	11/09/2022	09/10/2022	28	8.574	127900	568	
3	11/09/2022	09/10/2022	28	8.521	136800	608	

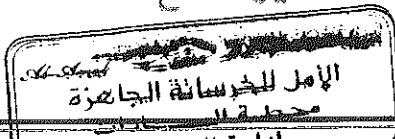
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد حبيب

مدير المصنع



تامر لاله

الإدارة : إيجيبت ميدكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : ٢٣٥٧٢٣٠٧ - ٢٦٧٧٢٥٧٢
Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : ٢٩٨٤١١٣٦ / ف: ٢٩٨٤٠١٠٩
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriale Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax: 048 2630140
01028459673 - 01006880635 - 01004976497
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥ : ٠٤٨ / ٢٦٣٠١٤٠ : ف: ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٩٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



Al Amal Ready mix

الأمل
للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

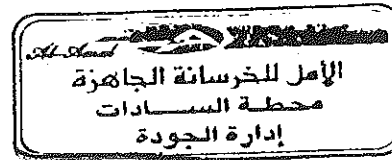
**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B15
Dimension : 15*15*15 cm
Date of casting : 11/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	11/09/2022	18/09/2022	7	8.501	108100	480	452
2	11/09/2022	18/09/2022	7	8.299	93530	416	
3	11/09/2022	18/09/2022	7	8.461	103800	461	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع



الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) - ٢٣٥٧٣٣٠٧ - ٢٩٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت: ٢٩٨٤٠١٠٩ / ف: ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت: ٠٤٨ / ٢٦٣٠١٤٠ / ف: ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriai Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

All employees are welcome!
 So come on in! All day. All day. All day.
 We need you!

This is the best place to work.
 This is the best place to work.
 This is the best place to work.

Don't miss it! Don't miss it!
 Don't miss it! Don't miss it!
 Don't miss it! Don't miss it!

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Plat
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Natural Ground Level

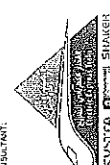
MEADVA ROAD BRIDGE GENERAL NOTES ASU DISTRICT 1, DEPARTMENT 1	MEADVA ROAD BRIDGE SUBSTRUCTURE PICKS PL. 2, PL. 10, REINFORCEMENT
---	--

Arab House of Engineering
House of Engineers
P.O. Box 10000, Jeddah 21511, Saudi Arabia
Tel.: +9667616485 Fax: +9667616486
e-mail: info@arabhouseofeng.com

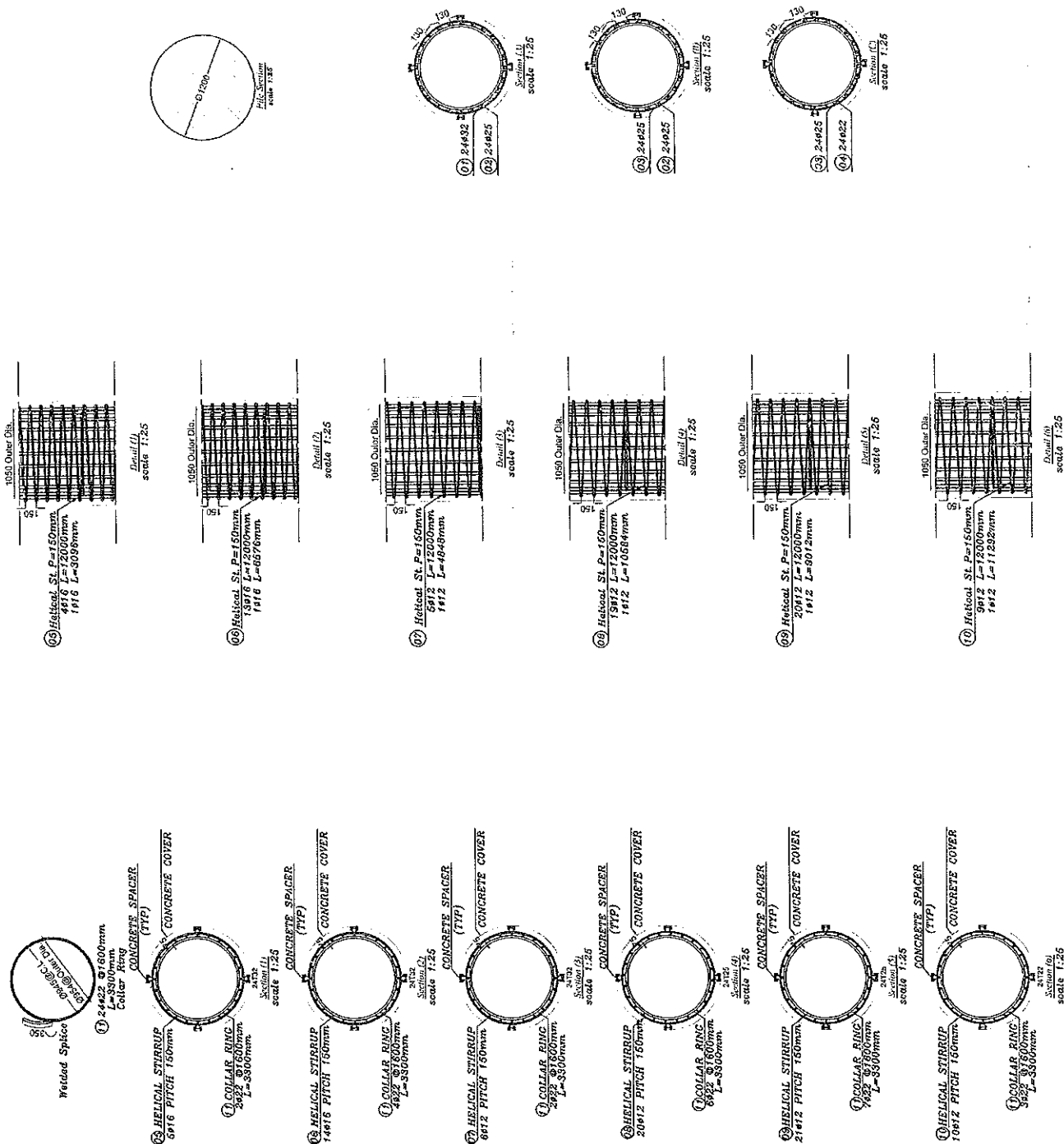
Q	ANSWERS	DATE	SALE	REVISION
1	100%			
2	100%			
3	100%			
4	100%			
5	100%			
6	100%			
7	100%			
8	100%			
9	100%			
10	100%			
11	100%			
12	100%			
13	100%			
14	100%			
15	100%			
16	100%			
17	100%			
18	100%			
19	100%			
20	100%			
21	100%			
22	100%			
23	100%			
24	100%			
25	100%			
26	100%			
27	100%			
28	100%			
29	100%			
30	100%			
31	100%			
32	100%			
33	100%			
34	100%			
35	100%			
36	100%			
37	100%			
38	100%			
39	100%			
40	100%			
41	100%			
42	100%			
43	100%			
44	100%			
45	100%			
46	100%			
47	100%			
48	100%			
49	100%			
50	100%			
51	100%			
52	100%			
53	100%			
54	100%			
55	100%			
56	100%			
57	100%			
58	100%			
59	100%			
60	100%			
61	100%			
62	100%			
63	100%			
64	100%			
65	100%			
66	100%			
67	100%			
68	100%			
69	100%			
70	100%			
71	100%			
72	100%			
73	100%			
74	100%			
75	100%			
76	100%			
77	100%			
78	100%			
79	100%			
80	100%			
81	100%			
82	100%			
83	100%			
84	100%			
85	100%			
86	100%			
87	100%			
88	100%			
89	100%			
90	100%			
91	100%			
92	100%			
93	100%			
94	100%			
95	100%			
96	100%			
97	100%			
98	100%			
99	100%			
100	100%			


 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 والبنية التحتية للنقل والمواصلات
 and Communications
 CAIRO

Country	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Japan	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0
Germany	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0
France	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0
Italy	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0
Spain	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0
Sweden	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0
United Kingdom	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0
United States	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0
Canada	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0
South Korea	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0
China	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0
India	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0
Brazil	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0
Argentina	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0
South Africa	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0
Poland	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0
Ukraine	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.			

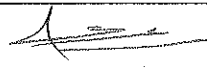


FHECOR 
Ingenieros Consultores

[illegible][illegible]

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			13/9/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

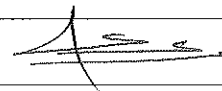
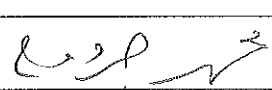
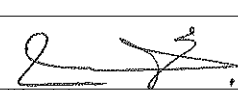
THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (16))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐ Grade: 35 kg/cm ²
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour: 3:50 pm	Concrete Volume: 51 m3		

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			13/9/2022	A



BAUER EGYPT



SVSTRA

AGENCY CONSULTING ENGINEERS
MOHAMMAD BAKHOUNBored Piles Construction
Pile Record SheetPile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	14
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	13/9/2022
Pile No.	P16	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.179 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	38.91 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	68.416
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.98

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585426.414	830473.230
Actual	585426.424	830473.240
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

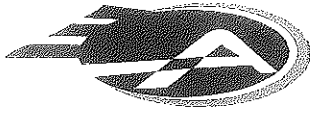
Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	0.75

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	13/9	8:30	12:40	Cleaning	-	-	-	
Install Cages	13/9	13:25	15:10	Pouring	13/9	15:50	16:53	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B16
Dimension : 15*15*15 cm
Date of casting : 13/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	13/09/2022	11/10/2022	28	8.358	134500	598	600
2	13/09/2022	11/10/2022	28	8.451	135300	601	
3	13/09/2022	11/10/2022	28	8.499	135100	600	

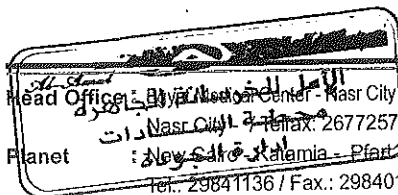
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد حجازى
مدير المنتج

تامر الملا



Head Office: Bypass Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت: ٢٩٨٤٠١٠٩ / ف: ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦ - ٠١٠٦٨٨٤٤١٧ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت: ٠٤٨ / ٢٦٣٠١٤٥ - ف: ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



Al Amal Ready mix

الأمال
للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٠ مليون جنيه
والمصدر ٧٥ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B16
Dimension : 15*15*15 cm
Date of casting : 12/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	13/09/2022	20/09/2022	7	8.456	106500	473	480
2	13/09/2022	20/09/2022	7	8.599	113400	504	
3	13/09/2022	20/09/2022	7	8.514	104000	462	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

الاستشارى

م. ج. ع.

جودة المشروع

مركز هليوبوليس

م. ج. ع.

Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrif st.
Nasr City - / Telfax: 26772572

Planet : New Cairo - Katamia - Pflart 82 - 83
Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrirel Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com

الإدارة : ٤١ شارع لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقريف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢

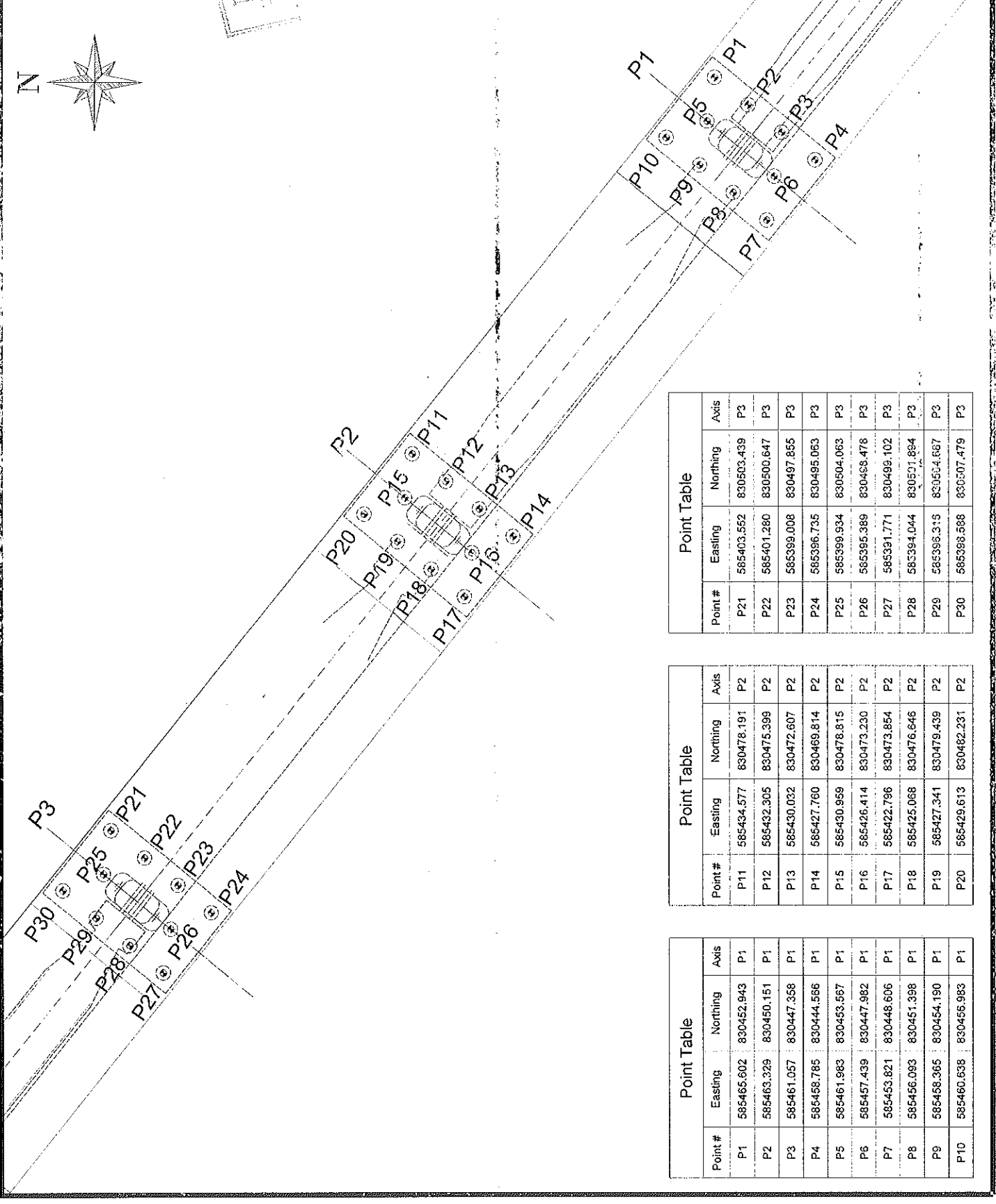
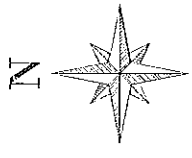
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٥ - ٧٠٠٣

ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

NOTES:
- ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED
- ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERIDIAN / AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.884	P3
P29	585396.315	830504.687	P3
P30	585398.588	830507.479	P3

TO: BOARD		NO. OF SHEETS: 4/4		SHEET NO. 4/4	
DATE		REVISION		OWNER	
PROJECT TITLE: ELECTRICAL BRIDGE FROM IRON SPUR TO AL-HIL SECTION THREE FROM WEST OF NILE TO AL-HIL					
NAME OF OWNER: CONSULTANT					
PROJECT LOCATION:					
PILES COORDINATES FOR APPROVED AXIS FROM P1 TO P30					
BY: 1/2	DATE	SCALE	1:100	DESIGNED BY	CHECKED BY
PROJECTED BY	APPROVED BY	DATE	1:100	DESIGNED BY	CHECKED BY
PROJECTED BY	APPROVED BY	DATE	1:100	DESIGNED BY	CHECKED BY

GENERAL NOTES

- All dimensions are in millimeters.
- All materials shall conform to the specifications of the Ministry of Public Works and Highways.
- The concrete shall be of grade C20.
- The reinforcement shall be of grade S420.
- The steel shall be of grade S235.
- The concrete shall be of grade C20.
- The reinforcement shall be of grade S420.
- The steel shall be of grade S235.
- The concrete shall be of grade C20.
- The reinforcement shall be of grade S420.
- The steel shall be of grade S235.

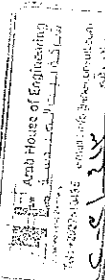
All works should be carried out in accordance with the specifications of the Ministry of Public Works and Highways.

ABBREVIATION:

- T.O.A. = Top of Asphalt
- T.O.C. = Top of Concrete
- T.O.F. = Top of Form
- T.O.G. = Top of Ground
- T.O.L. = Top of Level
- T.O.P. = Top of Pavement
- T.O.R. = Top of Road
- T.O.S. = Top of Surface
- T.O.T. = Top of Trench
- T.O.U. = Top of Underpass
- T.O.V. = Top of Vertical
- T.O.W. = Top of Wall
- T.O.X. = Top of X
- T.O.Y. = Top of Y
- T.O.Z. = Top of Z

DRAWING REFERENCES:

- REGIONAL ROAD PROJECT
- REGIONAL ROAD PROJECT
- REGIONAL ROAD PROJECT
- REGIONAL ROAD PROJECT
- REGIONAL ROAD PROJECT
- REGIONAL ROAD PROJECT
- REGIONAL ROAD PROJECT
- REGIONAL ROAD PROJECT
- REGIONAL ROAD PROJECT
- REGIONAL ROAD PROJECT



NO.	DATE	BY	CHK.	REV.
1	19/02/2022	...	...	...
2	19/02/2022	...	...	...
3	19/02/2022	...	...	...
4	19/02/2022	...	...	...
5	19/02/2022	...	...	...
6	19/02/2022	...	...	...
7	19/02/2022	...	...	...
8	19/02/2022	...	...	...
9	19/02/2022	...	...	...
10	19/02/2022	...	...	...

DESIGNED FOR CONSTRUCTION AND PERFORMANCE

NOTICE NO. 100

REVISION

DATE

BY

CHK.

REV.

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

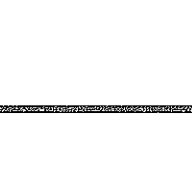
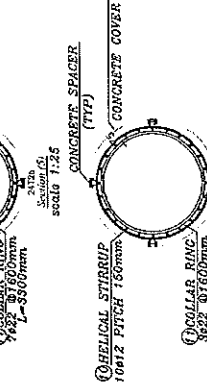
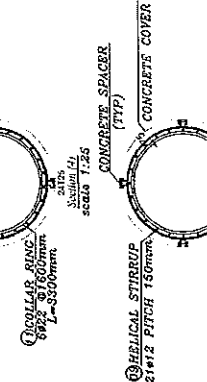
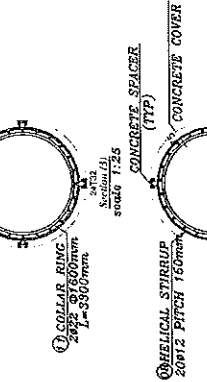
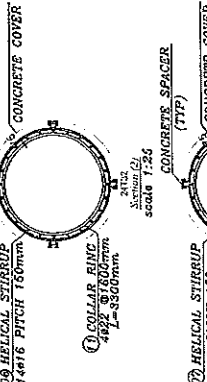
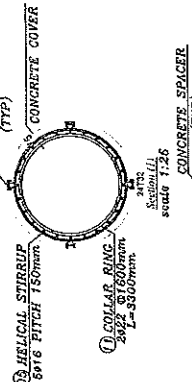
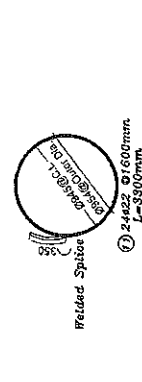
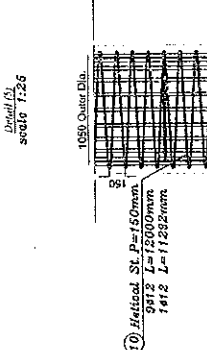
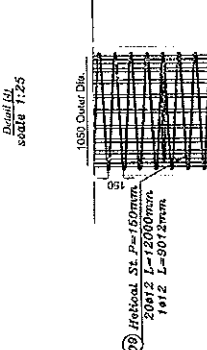
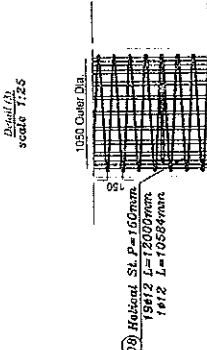
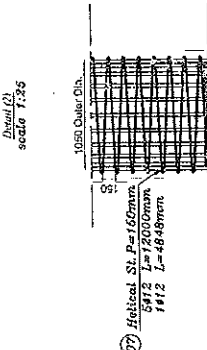
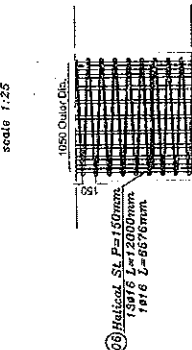
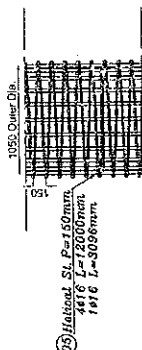
...

...

...

...

...



REQUEST to POUR CONCRETE



Contractor Company			Designer Company		
Issued by Contractor	Name	Sign	Date	Time	
Received by ER		محرم باخوم	7/9/2022		
Contractor Reference	النيل العامة		CON	C1	C2
				C3	DD
				MM	YY
				HH	MM

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (17))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 350 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 7:40 pm			Concrete Volume: 51 m3	
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			7/9/2022	A



BAUER EGYPT



SVSTRA

ACE CONSULTING ENGINEERS
MOHAMMAD BAKHOUN**Bored Piles Construction**
Pile Record Sheet**Pile Data**

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	10
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	7/9/2022
Pile No.	P17	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.22 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	38.91 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	68.461
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.02

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585422.796	830473.854
Actual	585422.804	830473.861
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

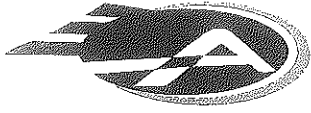
Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.04
Viscosity(Sec.)	30:70 Sec.	33	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	7/9	12:30	16:15	Cleaning	-	-	-	
Install Cages	7/9	17:30	18:55	Pouring	7/9	19:40	20:50	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٠ مليون جنيه
والمصدر ٢٥ مليون جنيه

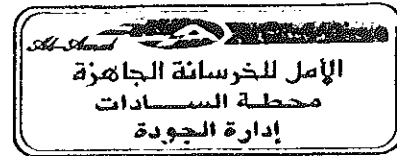
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B17
Dimension : 15*15*15 cm
Date of casting : 07/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	07/09/2022	14/09/2022	7	8.326	89240	397	448
2	07/09/2022	14/09/2022	7	8.459	107300	477	
3	07/09/2022	14/09/2022	7	8.501	105700	470	

التوقيع:

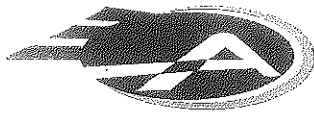
مركز هليوبوليس مهندس / أحمد عرابى
مدير المصنع



Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrirel Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثاني شقة ٣ - متفرع من ش محمد المقرئف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : Pile 17
Dimension : 15*15*15 cm
Date of casting : 07/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	05/09/2022	03/10/2022	28	8.669	132800	590	588
2	05/09/2022	03/10/2022	28	8.749	128500	571	
3	05/09/2022	03/10/2022	28	8.731	135600	603	

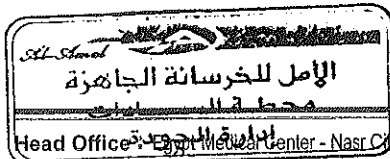
التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع



Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Pfort 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

إيجيبت ميدكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

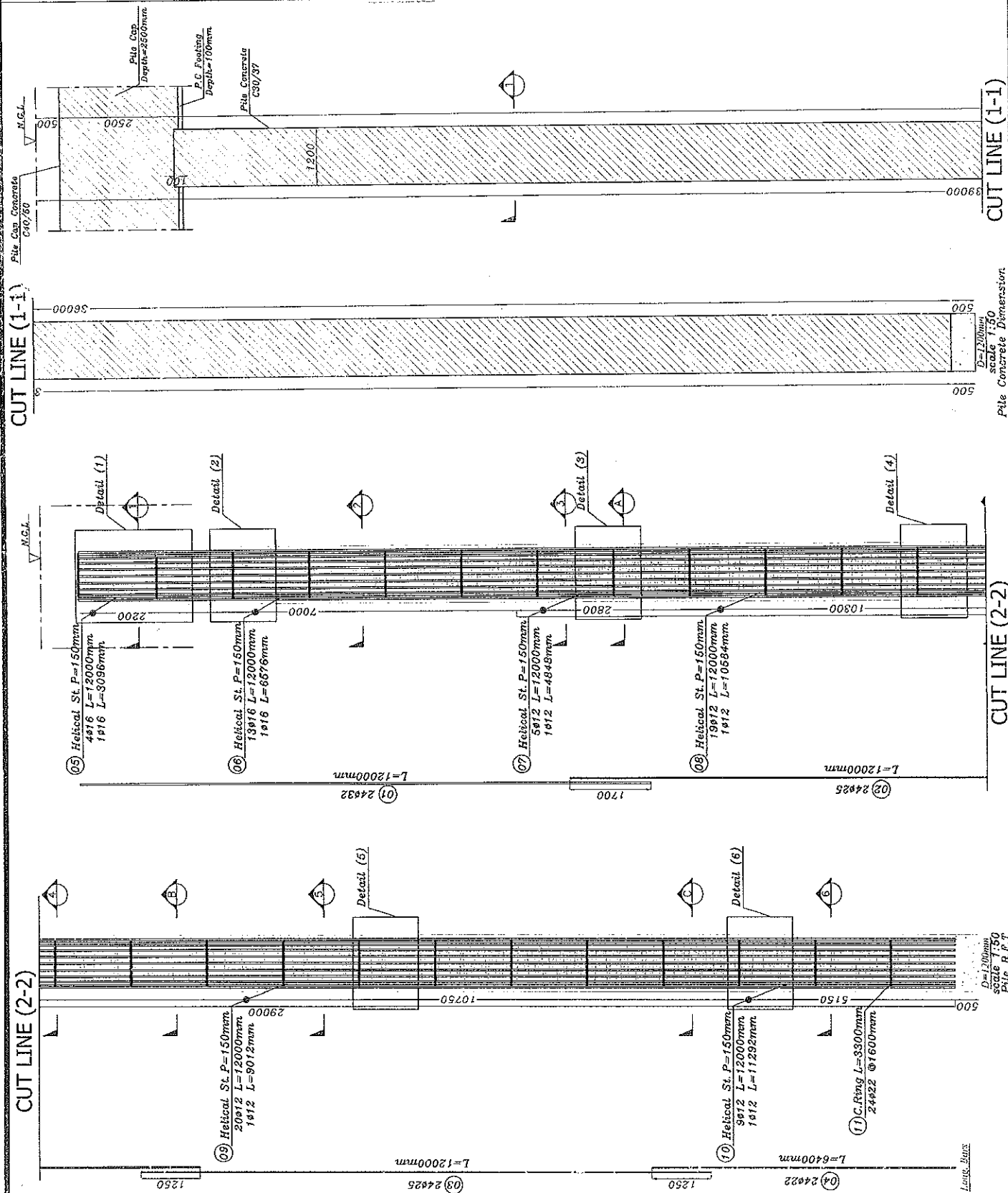
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ : ف : ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

الإدارة

موقع العمل

[illegible]

Abbreviation :
 -T.O.A = Top of A
 -T.O.C = Top of C
 -T.O.P = Top of P
 -T.O.B = Top of B
 -T.O.F = Top of F
 -M.G.L = Normal

5. REFERENCES

[illegible]
$$\frac{1}{\Gamma(\alpha)} \int_0^t (t-\tau)^{\alpha-1} f(\tau) d\tau$$

10

DATE	TIME	LOCATION	REMARKS
10/10/10	10:00	1000	1000

NO.	DATE	ENG.	REVISION
OWNER:			

ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT

والنقل البري
CARDIT

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED - 160M)
SECTION THREE (FROM WEST OF MILE TO ALABAMA)

PAK OF DWYEN CONSULTANT.

SYSCA SYSTEM SHARER

W E H E C R

Ingenieros Consultores



MAIN CONTRACTION:



HWQ. Title: REGINA ROAD BRIDGE
PILES AT AXES (P1, P2 & P3)

AVG NO:	DATE:	SCALE:
542-V081-40-110-01-P1F-100	09-2072	AS 31 NORTH

DRAWING BY: ENG. FALOUTI MURRAY	CHECKED BY: ENG. ALKHAYAT ALKHAYAT	REVIEWED BY: ENG. ALKHAYAT ALKHAYAT
------------------------------------	---------------------------------------	--

SUPERVISOR:	APPROVED BY:
CDC Richmond Landfill	Emp. Jackey Young

All demand are in millions
 of units unless
 otherwise
 specified.
 Price
 is in dollars
 unless
 otherwise
 specified.

ABREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

PR.VD01.CC.010.001.450F.L02

PR.VD01.CC.010.002.410.032.PI.E.D>

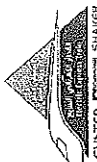
Arab House of Engineering

6	34-27387-2	MA3	ISSUED FOR CONSTRUCTION AFTER REVIEW OFFICE NO. 1069
---	------------	-----	---

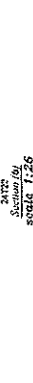
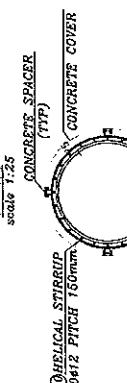
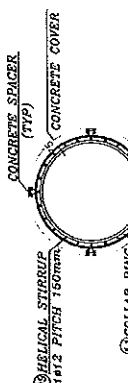
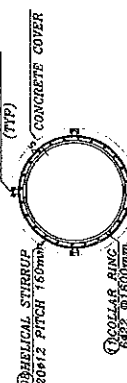
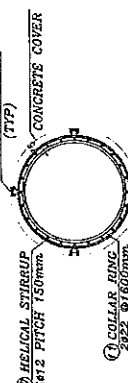
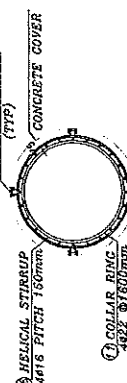
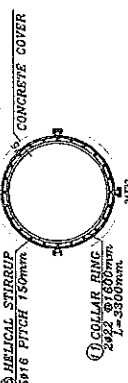
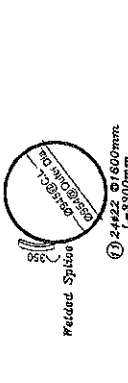
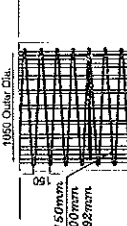
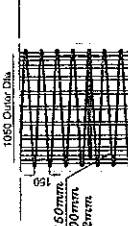
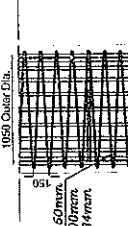
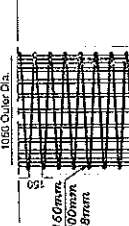
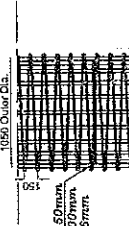
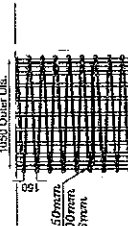
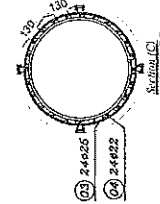
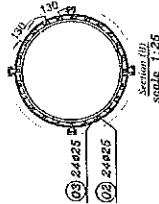
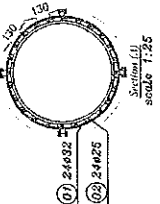
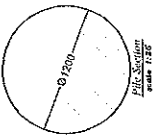
٥. DATE
 OWNER:
 ٦. SIGNATURE
 ٧. NAME
 ٨. ADDRESS
 ٩. CITY
 ١٠. COUNTRY
 ١١. POSTAL CODE
 ١٢. PHONE NO.
 ١٣. FAX NO.
 ١٤. E-MAIL
 ١٥. WEBSITE
 ١٦. OTHER INFORMATION

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF MILE TO ALABAMA)

NAME OF OWNER CONSULTANT:



VF
FHECOR
Ingenieros Consultores

[illegible]

REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			17/9/2022								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (18))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 350 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 6:20 pm	Concrete Volume: 51 m3			

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	

Comments by:		Comments by:	

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			17/9/2022	A



SYSTRA

ACE CONSULTING ENGINEERS
MOHARRAM BAKHOUMBored Piles Construction
Pile Record SheetPile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	18
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	17/9/2022
Pile No.	P18	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.53 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	38.91 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	68.772
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.33

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585425.068	830476.646
Actual	585425.069	830476.663
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.05
Viscosity(Sec.)	30:70 Sec.	33	≤90 Sec.	36
Sand Content %	Less than 4%	N/A	Less than 2%	1

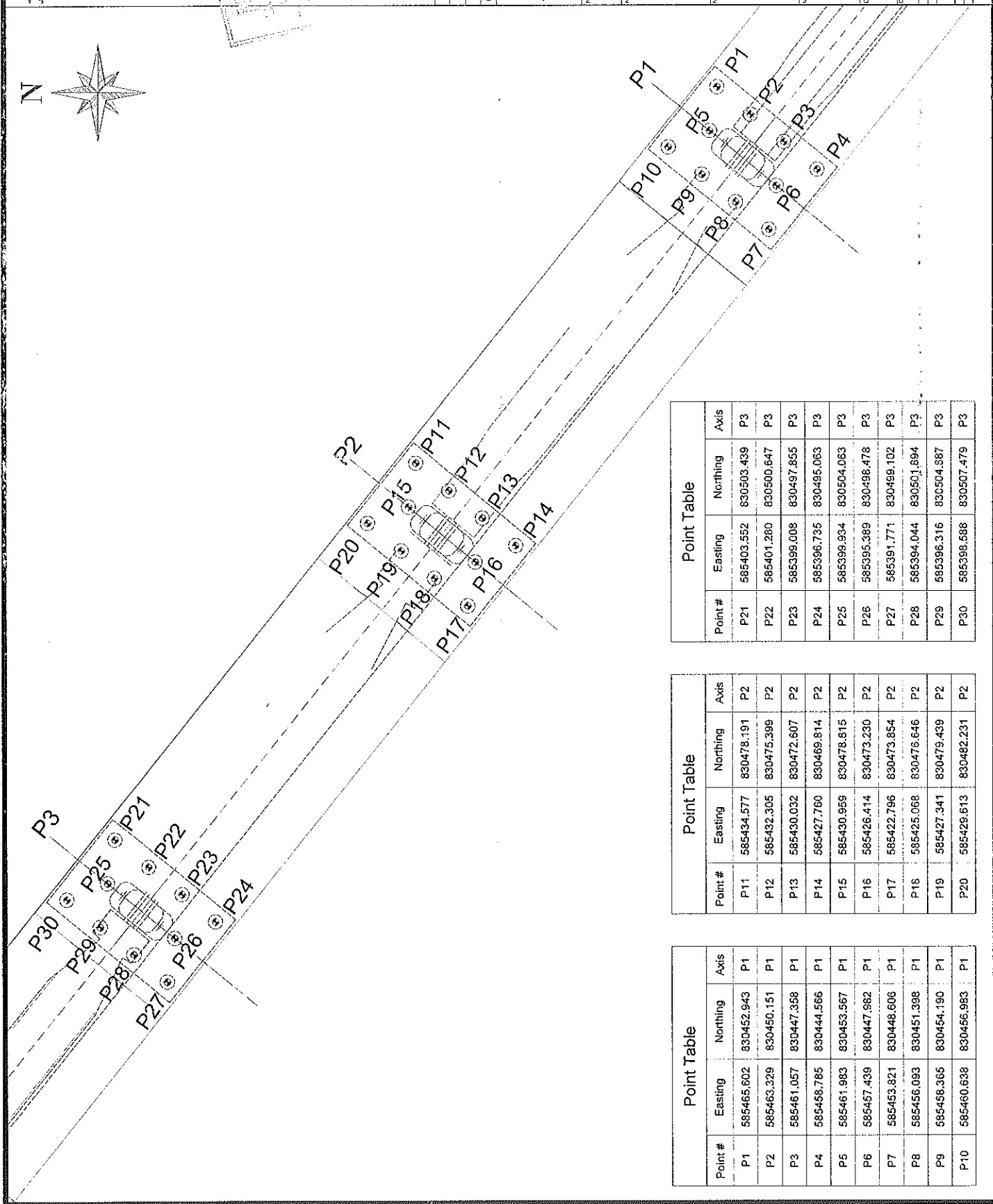
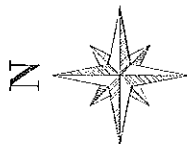
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	17/9	10:00	16:20	Cleaning	-	-	-	
Install Cages	17/9	16:40	18:00	Pouring	17/9	18:20	19:55	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETRN EGYPTIAN TRANSVERSE
MERIDIAN, AS PER THE RECEIVED SITE SURVEY.

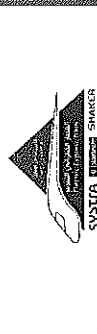


NO.	REVISED	DATE	BY	REVISION
01	01/01/2022	01/01/2022	01/01/2022	ISSUED FOR CONSTRUCTION

SWSTIA
شركة
مصر
للدراسات
والتصميم
والبناء
والإدارة
والتشغيل
والصيانة
والإشراف
على
المشاريع
الهندسية
والتشييد
والبناء
والإدارة
والتشغيل
والصيانة
والإشراف
على
المشاريع
الهندسية

NAME OF PROJECT
ELECTRICAL TRAINWAY TRAMWAY SPEED 140KM/H
SECTION THREE FROM AXIS OF RAIL TO LAMPY

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT
FHECOR
Ingenieros Consultores



DATE
01/01/2022

SCALE
1:100

DESIGNED BY
Eng. Mohamed El-Sayed

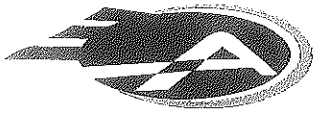
CHECKED BY
Eng. Mohamed El-Sayed

SUPERVISOR
DR. Mohamed El-Sayed

Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585398.316	830504.887	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م.
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B18
Dimension : 15*15*15 cm
Date of casting : 17/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	17/09/2022	24/09/2022	7	8.665	97780	435	441
2	17/09/2022	24/09/2022	7	8.561	108400	482	
3	17/09/2022	24/09/2022	7	8.337	91790	408	

التوقيع:

مهندس / أحمد عرابى
مدير المصنع

الاستشارى

ش.م.م.

جودة المشروع

مركز هالبرجوليس

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر/ تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART 4 : 1983**

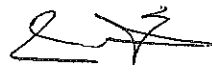
PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B18
Dimension : 15*15*15 cm
Date of casting : 17/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	17/09/2022	15/10/2022	28	8.635	128000	569	595
2	17/09/2022	15/10/2022	28	8.425	140900	626	
3	17/09/2022	15/10/2022	28	8.396	132600	589	

التوقيع:

الاستشارى

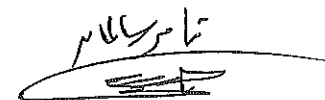
جودة المشروع





المهندس / المهندس / المهندس

مهندس المسح



الأمل للخرسانة الجاهزة
محطة الإنتاج

Head Office: Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

GENERAL NOTES:

- 1. All dimensions are in millimeters.
- 2. All reinforcement bars shall be supplied in accordance with the specifications of the Egyptian Standards.
- 3. The concrete shall be of grade C40/50.
- 4. The reinforcement bars shall be of grade S420.
- 5. The reinforcement bars shall be of grade S420.
- 6. The reinforcement bars shall be of grade S420.
- 7. The reinforcement bars shall be of grade S420.
- 8. The reinforcement bars shall be of grade S420.
- 9. The reinforcement bars shall be of grade S420.
- 10. The reinforcement bars shall be of grade S420.

ABBREVIATION:

- 1. Top of Pile
- 2. Top of Pile
- 3. Top of Pile
- 4. Top of Pile
- 5. Top of Pile
- 6. Top of Pile
- 7. Top of Pile
- 8. Top of Pile
- 9. Top of Pile
- 10. Top of Pile

DRAWING REFERENCES:

- 1. REINFORCED CONCRETE
- 2. REINFORCED CONCRETE
- 3. REINFORCED CONCRETE
- 4. REINFORCED CONCRETE
- 5. REINFORCED CONCRETE
- 6. REINFORCED CONCRETE
- 7. REINFORCED CONCRETE
- 8. REINFORCED CONCRETE
- 9. REINFORCED CONCRETE
- 10. REINFORCED CONCRETE

REVISIONS:

NO.	DATE	BY	REVISION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

OWNER:

MINISTRY OF TRANSPORT
GENERAL DIRECTORATE OF HIGHWAYS
GENERAL DIRECTORATE OF HIGHWAYS
GENERAL DIRECTORATE OF HIGHWAYS
GENERAL DIRECTORATE OF HIGHWAYS
GENERAL DIRECTORATE OF HIGHWAYS
GENERAL DIRECTORATE OF HIGHWAYS
GENERAL DIRECTORATE OF HIGHWAYS
GENERAL DIRECTORATE OF HIGHWAYS
GENERAL DIRECTORATE OF HIGHWAYS
GENERAL DIRECTORATE OF HIGHWAYS

DESIGNER:

SYSTEMA
SHAIER

DATE OF CONTRACT:

15/05/2015

SECTION THREE (FROM WEST OF PILE TO ALAMIN)

SCALE:

1:50

PROJECT TITLE:

REINFORCED CONCRETE

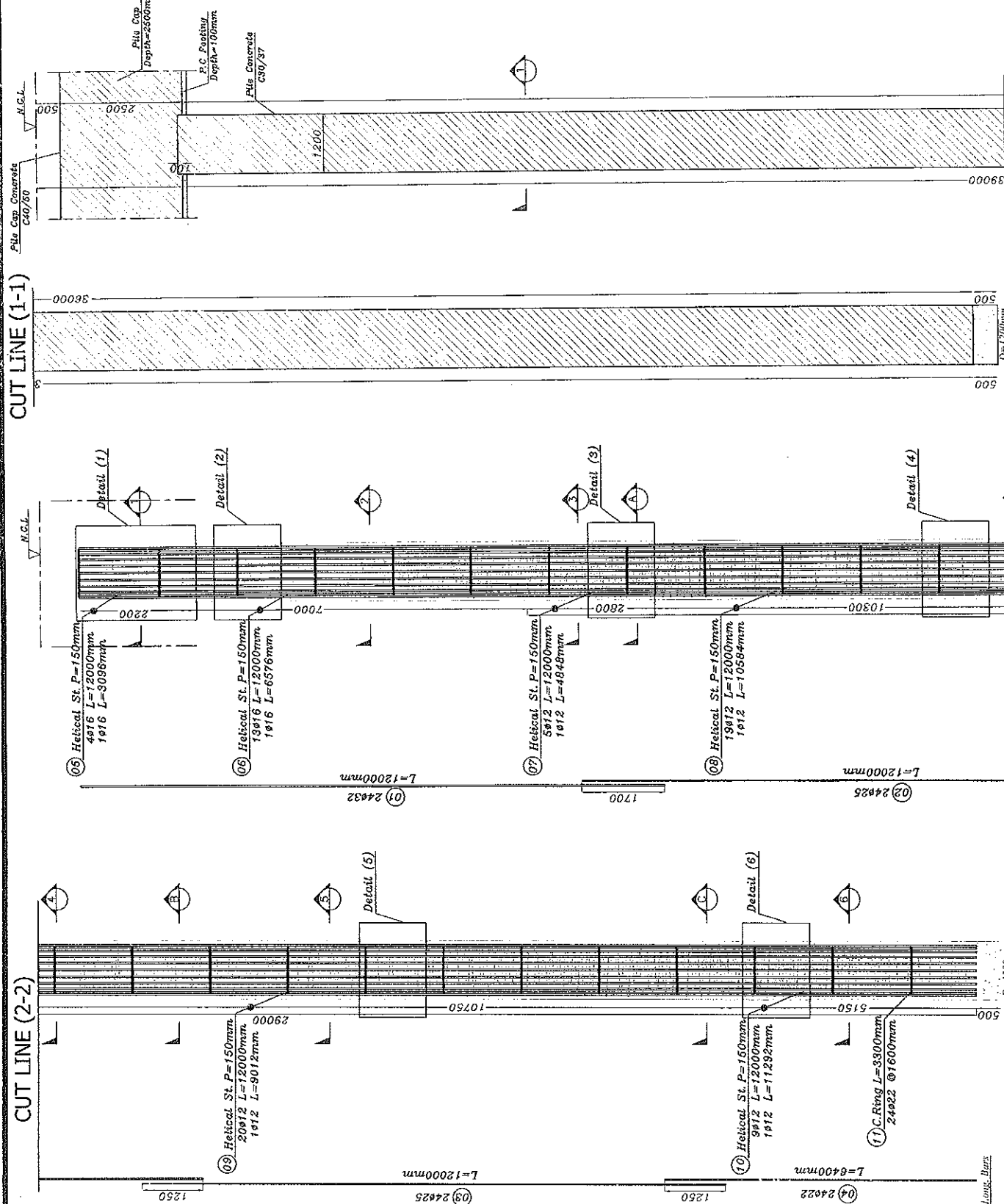
PILE (REINFORCEMENT BARS) DRAWING

DATE:

15/05/2015

SCALE:

1:50



CUT LINE (1-1)

CUT LINE (2-2)

Pile Concrete Dimension

Scale 1:50

Pile R.P. 7

REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name نادر رمزي	Sign 	Date 20/9/2022	Time							
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (19))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐ Grade: 30 kg/cm ²
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour: 2:55 pm	Concrete Volume: 51 m3		

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			20/9/2022	A



SVSTRA

ACE CONSULTING ENGINEERS
MOHARRAM BAKHOUM

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	21
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	20/9/2022
Pile No.	P19	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.50 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	38.91 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	68.734
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.3

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585427.341	830479.439
Actual	585427.339	830479.446
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.04
Viscosity(Sec.)	30:70 Sec.	33	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

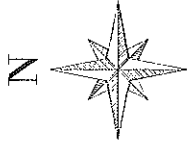
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	20/9	8:30	12:00	Cleaning	-	-	-	
Install Cages	20/9	12:30	14:10	Pouring	20/9	14:55	16:10	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERCATOR) AS PER THE RECEIVED SITE SURVEY.



NO.	EXP/02	N.A.	ISSUED FOR CONSTRUCTION
NO.	DATE	DWG.	REVISION

OWNER
 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة التخطيط
 Ministry of Planning
 الهيئة العامة للتخطيط
 General Planning Authority
 والقوى العاملة
 Labour Force
 قاهرة
 CAIRO

NAME OF PROJECT
 ELECTRONIC EXCHANGES FROM HIGH SPEED RAIL
 SECTION THREE FROM WEST OF AIN HELWAN

NAME OF OWNER/CONSULTANT

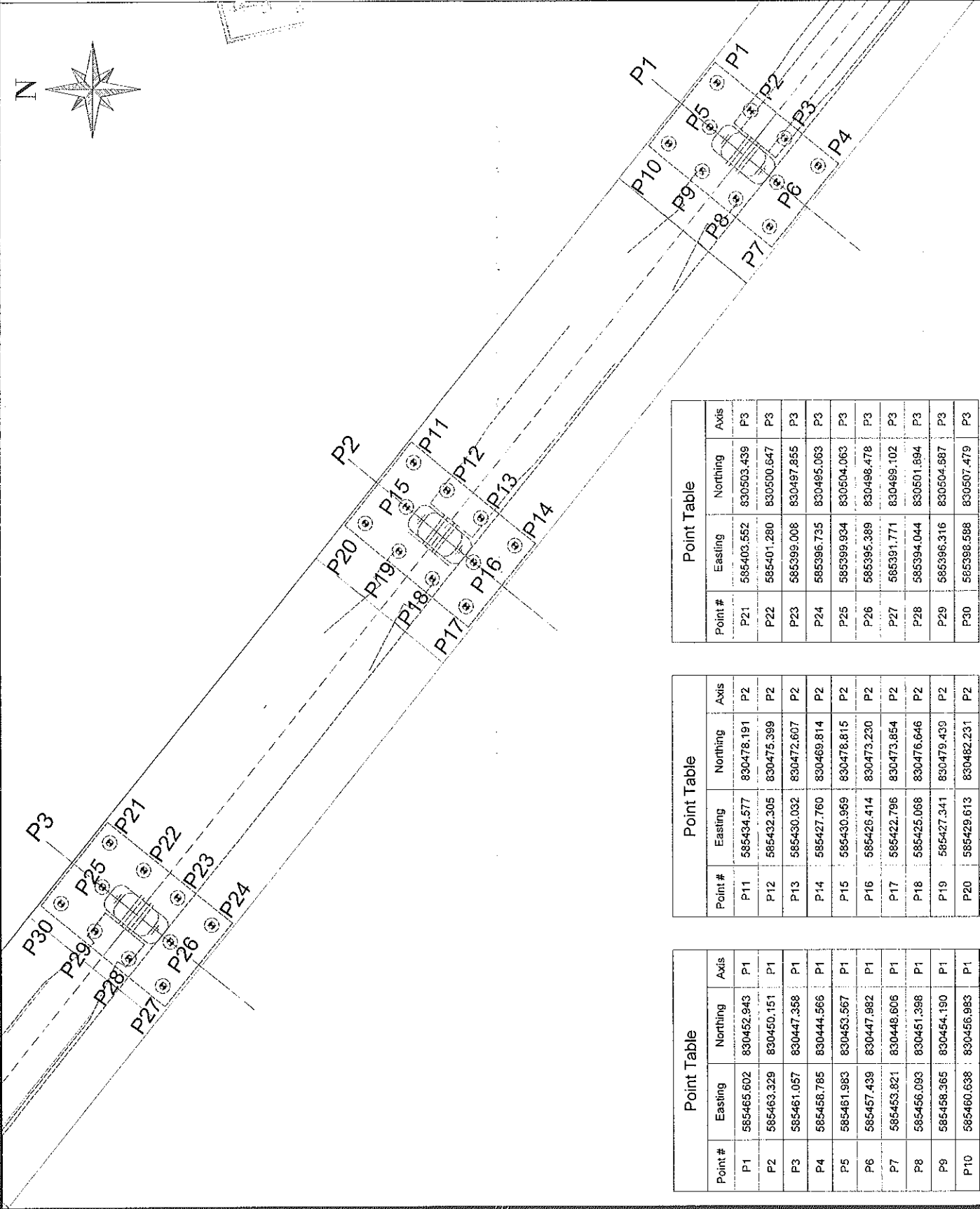


NAME OF CONTRACTOR/CONSULTANT
 FHECOR
 Ingenieros Consultores



DRG TITLE
 BEGIVA BRIDGE
 PILES COORDINATES FOR APPROVED AXIS
 FROM PT. P3

DATE	06/02/2012	SCALE	1:500
DRAWING BY	Eng. Mohamed Jaber	CHECKED BY	
APPROVED BY		APPROVED BY	
DR. Mohamed Lutfi		DR. Mohamed Lutfi	



Point #	Easting	Northing	Axis
P21	585400.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585398.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585396.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.969	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

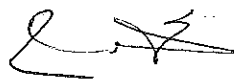
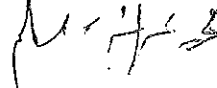
PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B19
Dimension : 15*15*15 cm
Date of casting : 20/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	20/09/2022	27/09/2022	7	8.532	121200	539	567
2	20/09/2022	27/09/2022	7	8.377	131100	583	
3	20/09/2022	27/09/2022	7	8.495	130700	581	

التوقيع:

الأستشارى

جودة المشروع

مهندس / أحمد عربى
مدير المصنع



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B19
Dimension : 15*15*15 cm
Date of casting : 20/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	20/09/2022	18/10/2022	28	8.514	128600	572	610
2	20/09/2022	18/10/2022	28	8.624	144600	643	
3	20/09/2022	18/10/2022	28	8.437	138400	615	

التوقيع:

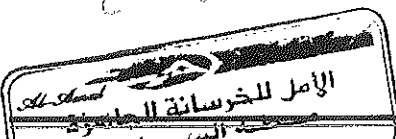
الاستشارى

جودة المشروع

مهندس / احمد عرابى

مدير المصنع

تامر ملاح



Head Office: Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - 7 / Tel: 26772572 - 23573307

Plant : New Cairo - Katamia - Part 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrial Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٦٧٧٢٥٧٢

موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٧٨٤٥٩٦٧٣

Total	5672.88
-------	---------

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
- LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.

[illegible]

Arab House of Engineering
مركز البحوث والدراسات الهندسية
مقر (مكة) - مكة المكرمة
Tel: 026290435
Fax: 026290435
www.arabhouse.com

REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			11/9/2022								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (20))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 30 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 11:40 Am	Concrete Volume: 51 m3			

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			11/9/2022	A



BAUER EGYPT



SVSTRA

ACE CONSULTING ENGINEERS
MOHARRAMBAKHOUA

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	4
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	1/9/2022
Pile No.	P20	Structure	bridge	Pile Cutoff Level	-
Pier	P2	Ground Level	67.15	Pile Toe Level	28.237
Theoretical Pile Length from caisson level	40.12 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	38.91 m	Theoretical Concrete Q	46 m ³	Temporary Casing Level	68.360
Act. Drilling Length	40.7 m	Act. Concrete Q	51 m ³	Steel Top Level	66.437
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	1.93

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585429.613	830482.231
Actual	585429.627	830482.227
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	37
Sand Content %	Less than 4%	N/A	Less than 2%	0.5

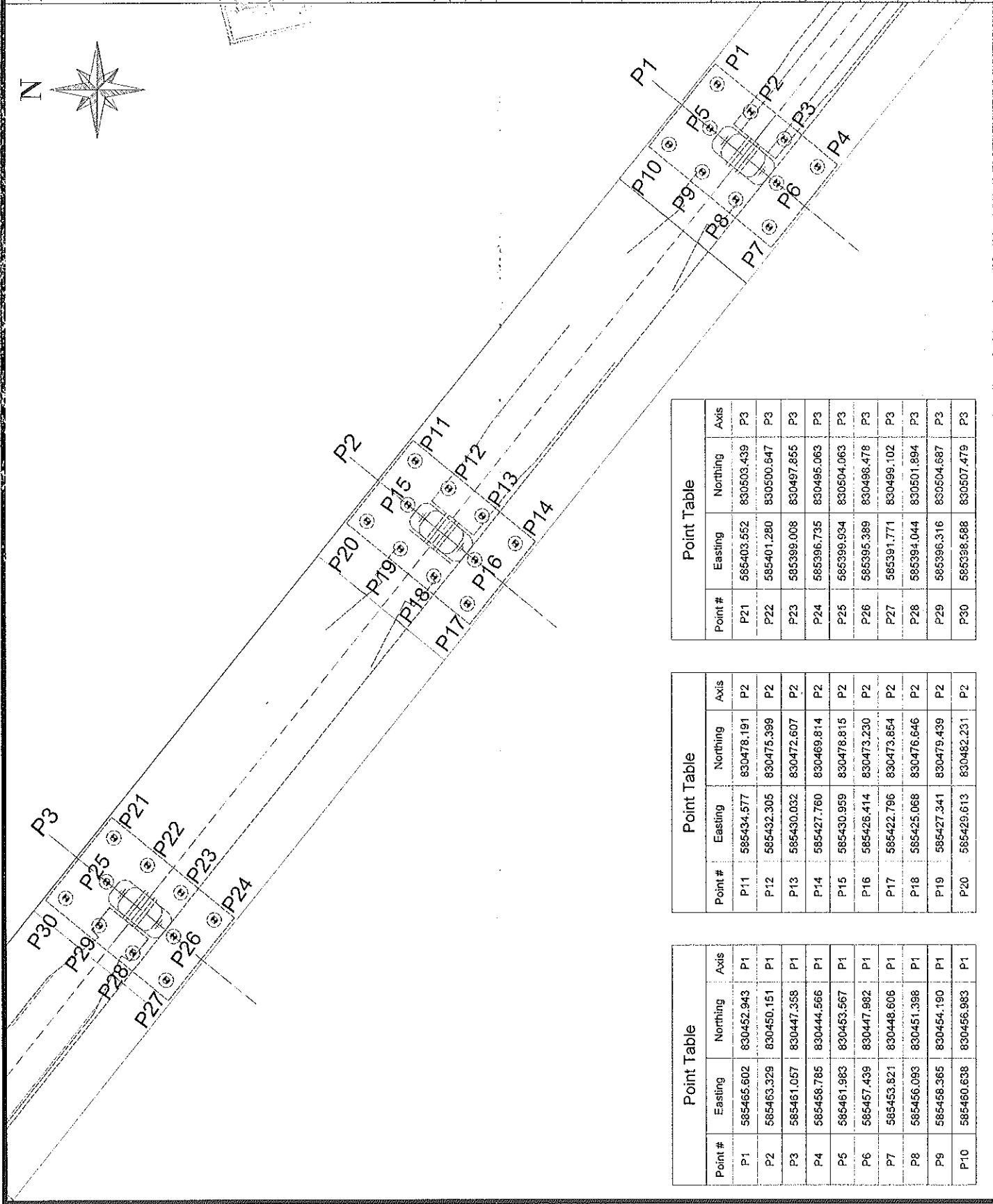
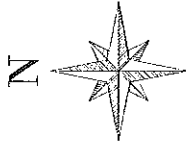
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	31/8	11:40	16:50	Cleaning	-	-	-	
Install Cages	1/9	9:37	11:04	Pouring	1/9	11:44	13:00	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERIDIAN, AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P1	585455.602	830452.943	P1
P2	585453.329	830450.151	P1
P3	585451.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

OWNER			
NO.	DATE	SIG.	REVISION
01	01/01/2023	K.A.	ISSUED FOR CONSULTATION

الهيئة العامة للغمر العربية
جمهورية مصر العربية
وزارة النقل
مصر
الهيئة العامة للغمر العربية
مصر
الهيئة العامة للغمر العربية
مصر

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN HIGH SPEED RAIL
SECTION THREE (FROM MEAS. OF FILE TO LUNAH)

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT



NAME OF CONTRACTOR

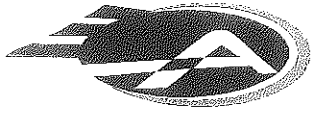


LONG TITLE
RECVAL BRIDGE
FROM P1 TO P3

REVISED	DATE	SCALE
PC/00	01/01/2023	1:100

DESIGNED BY	CHECKED BY
Eng. Mohamed Salah	Eng. Mohamed Salah

SHEET NO.	SHEET TOTAL
01	01



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المخصص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

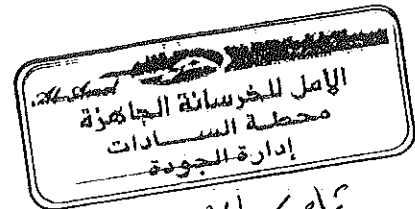
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B20
Dimension : 15*15*15 cm
Date of casting : 01/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	01/09/2022	08/09/2022	7	3.501	35240	423	442
2	01/09/2022	08/09/2022	7	8.487	103600	460	
3	01/09/2022	08/09/2022	7	8.486	99780	443	

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

مركز هاسيو بوليس



تامر الحام

Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
Nasr City - / Telfax: 26772572 - 23573307
Planet : New Cairo - Katamia - Pfart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : إيجيبت ميدكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧).
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

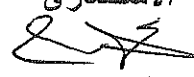
E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B20
Dimension : 15*15*15 cm
Date of casting : 01/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	01/09/2022	29/09/2022	28	8.578	126400	562	561
2	01/09/2022	29/09/2022	28	8.456	127200	565	
3	01/09/2022	29/09/2022	28	8.395	125000	556	

التوقيع:

الاستشارى


جودة المشروع



مهندس / أحمد عرابى

مدير المصنع

تأثير الملام

[illegible]

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

DRAWING REFERENCES:
 3445-VG01-GE-B10-B01-NOV-EN2
 REGINA ROAD BRIDGE

ORCA-NDU100-710-002-916-1002
REC'D-AIR MAIL DIVISION
SUBSTRUCTURE
MILERS 11, P2, P1, REINFORCEMENT 111

Arad House of Engineering

NO.	DATE	REV.	REVISION
0	11/6/2004	1/MS	ISSUED FOR CONSTRUCTION AS PER REVIEW HOTICE No. 1009


وزارة النقل
 جمهورية مصر العربية
 ARAB REPUBLIC OF EGYPT
 وزارة النقل
 MINISTRY OF TRANSPORT
 والمواصلات
 CANAL
 قناة السويس
 وزارة النقل
 CANAL
 وزارة النقل

NAME OF PROJECT: ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)

NAME OF OWNER CONSULTANT:

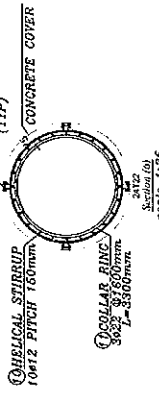
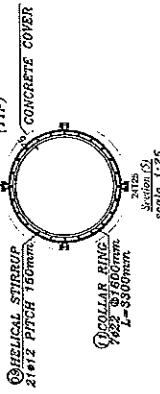
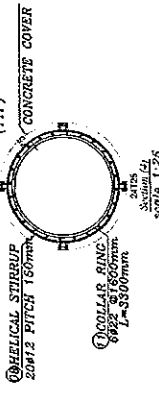
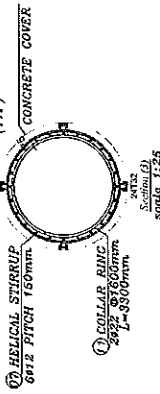
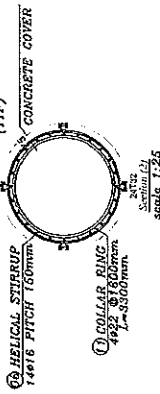
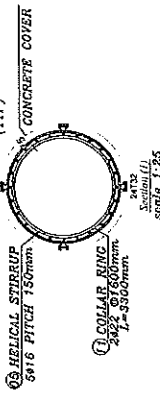
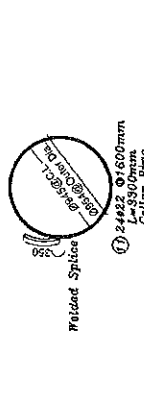
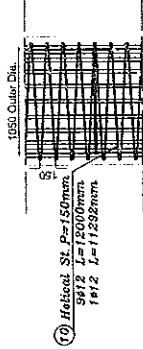
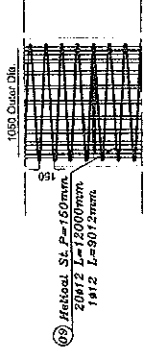
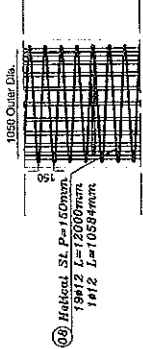
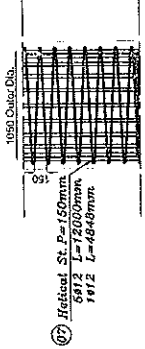
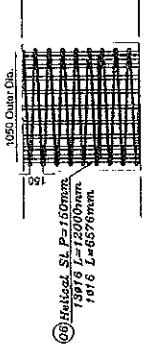
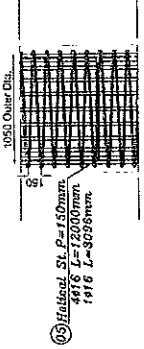
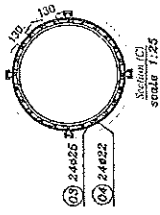
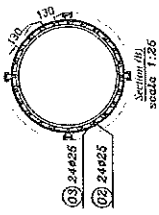
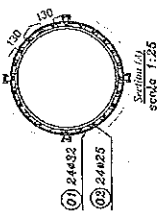
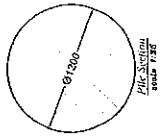
NAME OF CONTRACTOR CONSULTANT:

AV
FHECOR
Ingenieros Consultores



DRUG TITLE

DRAWING NO:	DATE:	SOURCE:
08-2012		AS PER DWM
DRAWING BY:	CHECKED BY:	APPROVED BY:
ENG. Ezzat Faray	ENG. Adelamin Hashem	ENG. Adelamin Hashem
<i>[Signature]</i>		<i>mas</i>
SUPERVISOR:		
DR. Mohamed Elshahhat	ENG. Adelamin Hashem	



[illegible]

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

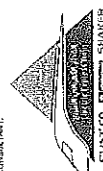
ONE-VOL-CC-010-001-INT-E02	REGWA ROAD BRIDGE GENERAL NOTES ADDITIONAL DEFINITION
ONE-VOL-CC-010-002-INT-E02	REGWA ROAD BRIDGE STRUCTURE PIERS #1, P2, P3, REINFORCEMENT

[illegible]

	الجمهورية العربية السورية الجمهورية العربية السورية AMAR REPUBLIC OF EGYPT وزارة النقل MINISTRY OF TRANSPORT الهيئة العامة للنقل والكابلات والنقل الجوي	الجمهورية العربية السورية الجمهورية العربية السورية AMAR REPUBLIC OF EGYPT وزارة النقل MINISTRY OF TRANSPORT الهيئة العامة للنقل والكابلات والنقل الجوي
	الجمهورية العربية السورية الجمهورية العربية السورية AMAR REPUBLIC OF EGYPT وزارة النقل MINISTRY OF TRANSPORT الهيئة العامة للنقل والكابلات والنقل الجوي	الجمهورية العربية السورية الجمهورية العربية السورية AMAR REPUBLIC OF EGYPT وزارة النقل MINISTRY OF TRANSPORT الهيئة العامة للنقل والكابلات والنقل الجوي

NAME OF PROJECT:
ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE (FROM VES) OF NILE TO ALAMANI

UNIT OF CRYSTALLINE CHLORINE PEROXIDE -



AVIAR ANNUAL FOR 2008

1. *Journal of the American Medical Association*, 1997; 277: 1001-1005.



OWN TITLE.

REGINA ROAD BRIDGE
FILES AT AXES 1P1,P2&P3)

PILE REINFORCEMENT

DATE: _____

DATE: 01/11/2011 10:00 AM

2011-03-10	2011-03-10
2011-03-10	2011-03-10

ENGR. ELLIOTT FERRY	ENGR. ABRAHAM MATHWELL
---------------------	------------------------

4

SUPEREXPOSURE

Die Hochauflösung

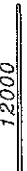
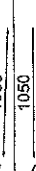
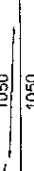
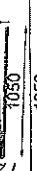
[illegible]

© 2005 Blackwell Publishing Ltd

1000

Table 1

Arabi House of Engineering
عبدالله بن محمد بن عبد الله
702916135

BAR MARK	BAR DIA.	SYMBOL(mm.)	NUMBER QTY	LENGTH (mm.)	TOTAL WEIGHT (kg)
01	32		24	12000	1820.44
02	25		24	12000	1111.11
03	25		24	12000	1111.11
04	22		24	6400	458.90
05	16		4+1	12000 + 3096	75.85 + 4.89
06	16		13+1	12000 + 6576	246.51 + 10.39
07	12		5+1	12000 + 4848	53.33 + 4.30
08	12		19+1	12000 + 10584	202.66 + 9.40
09	12		20+1	12000 + 9012	213.33 + 8.01
10	12		9+1	12000 + 11292	96.00 + 10.03
11	22		24	3300	236.62

Total 5672.88

Pile Diameter	Ø12	Ø16	Ø22	Ø25	Ø32
TOTAL LENGTH(M)	678.47	213.69	233.39	577.2	289.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
LENGTH OF PILE = 39 M BELOW GROUND LEVEL ACCORDING TO GEOTECHNICAL REPORT.

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			3/9/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (21))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐ Grade: 30 kg/cm ²
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour: 6:19 pm	Concrete Volume: 51 m3		

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			3/9/2022	B



SVSTRA

ACE CONSULTING ENGINEERS
MOHAMMAD BAKHOUN**Bored Piles Construction**
Pile Record Sheet**Pile Data**

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	5
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	3/9/2022
Pile No.	P21	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.45 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	45.99 m ³	Temporary Casing Level	69.355
Act. Drilling Length	40.7 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.25 m
28.907					

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585403.552	830503.439
Actual	585403.539	830503.441
BAUER Survivor		

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	35	≤90 Sec.	39
Sand Content %	Less than 4%	N/A	Less than 2%	1

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	3/9	10:14	14:40	Cleaning	-	-	-	
Install Cages	3/9	16:07	17:45	Pouring	3/9	18:19	19:35	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			



ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON THE EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.

02	06/2012	K.A	ISSUED FOR CONSTRUCTION
----	---------	-----	-------------------------

OWNER:

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الهيئة العامة للنقل والكباري
والجسور

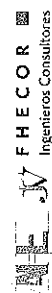
مبنى النقل
بمصر

NAME OF PROJECT
ELECTRICAL EXPRESS TRAIN HIGH-SPEED RAIL
SECTION THREE ITEM MUST BE ADDED TO ALL AMENDMENTS

NAME OF CARRIER CONSULTANT



NAME OF CONTRACTOR: CONSULTANT

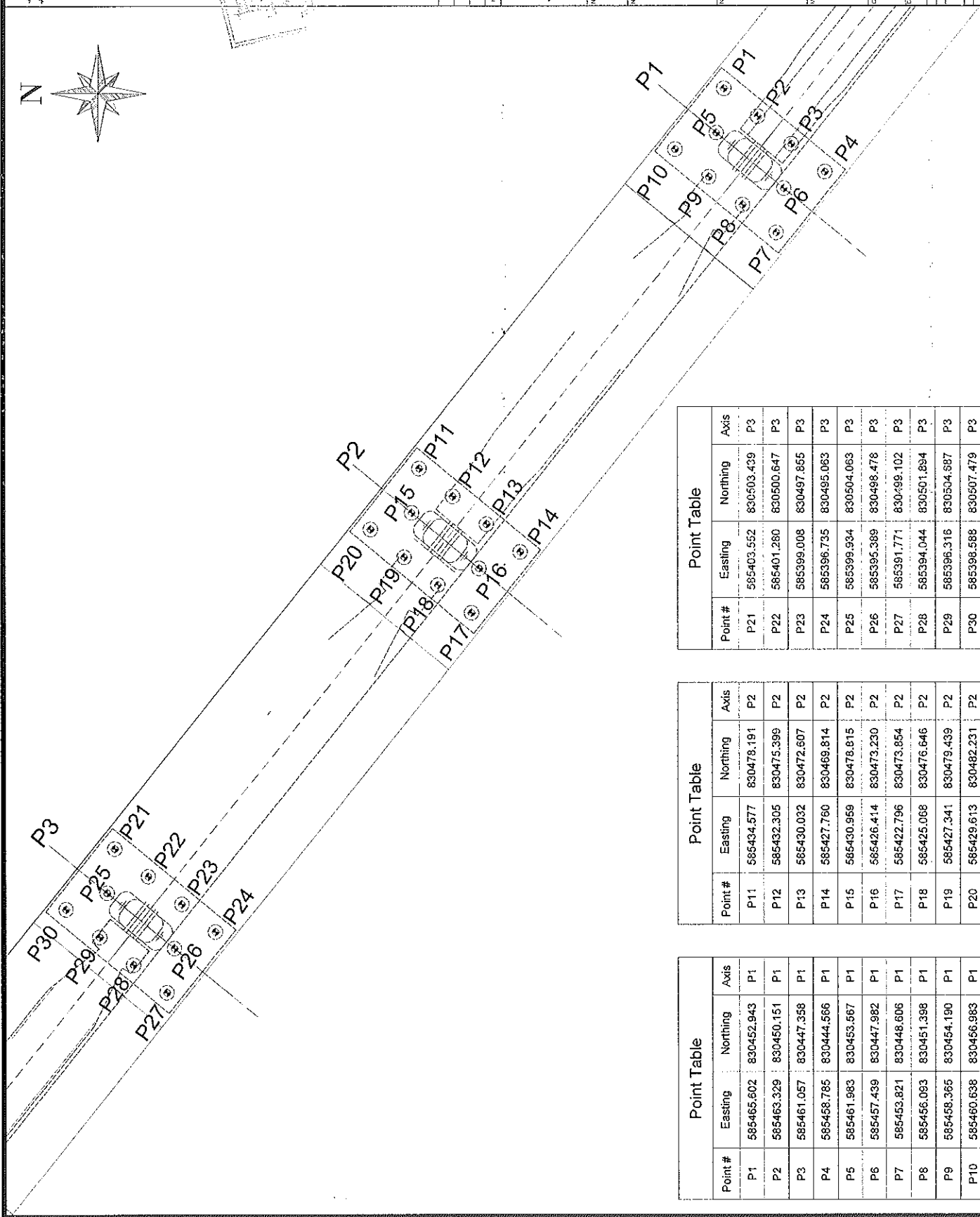


Abstract



REGWA BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM P1 - P2

STATUS	AC-00	DATE	08/02/22	SOURCE	1 130
	CREATED BY		DESIGNED BY	CHECKED BY	
	ENG CONSULT		ENGINEERING STAFF		
SUPERVISOR			APPROVED BY		
BR National Laboratory			Date: August Twenty		



Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.587	P3
P30	585398.588	830607.479	P3

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.507	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P1	585455.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B21
Dimension : 15*15*15 cm
Date of casting : 03/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	03/09/2022	01/10/2022	28	8.702	117900	524	546
2	03/09/2022	01/10/2022	28	8.534	119300	530	
3	03/09/2022	01/10/2022	28	8.462	131200	583	

التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عربى

مدير المصنع





تامر الحام

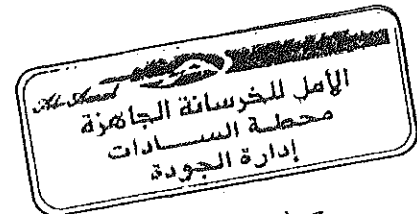
**COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983**

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B21
Dimension : 15*15*15 cm
Date of casting : 03/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	03/09/2022	10/09/2022	7	8.543	101300	450	461
2	03/09/2022	10/09/2022	7	8.506	99720	443	
3	03/09/2022	10/09/2022	7	8.568	110300	490	

التوقيع:
مهندس / أحمد عرابى
مدير المصنع

مركز هليوبوليس



تامر المار

GENERAL NOTES

- 1. All dimensions are in millimeters.
- 2. Reinforcement shall be as per specification.
- 3. All reinforcement shall be lap welded.
- 4. All reinforcement shall be lap welded.
- 5. All reinforcement shall be lap welded.
- 6. All reinforcement shall be lap welded.
- 7. All reinforcement shall be lap welded.
- 8. All reinforcement shall be lap welded.
- 9. All reinforcement shall be lap welded.
- 10. All reinforcement shall be lap welded.

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.F = Top of Footing
- T.O.P = Top of Pile
- N.G.L = Natural Ground Level

REVISIONS:

REVISION NO. 1
DATE: 10/10/2011
BY: [Signature]
FOR: [Signature]

PROJECT INFORMATION

PROJECT NAME: [Project Name]
CLIENT: [Client Name]
DESIGNER: [Designer Name]
DRAWN BY: [Drawn By Name]
CHECKED BY: [Checked By Name]
APPROVED BY: [Approved By Name]

NO.	DATE	REVISION
1	10/10/2011	Initial Design
2	10/10/2011	Revised Design
3	10/10/2011	Final Design

DESIGNER: [Designer Name]
CHECKED BY: [Checked By Name]
APPROVED BY: [Approved By Name]

NAME OF PROJECT: [Project Name]
SECTION THREE (Pile and Foundation)

NAME OF OFFICE CONSULTANT: [Office Name]

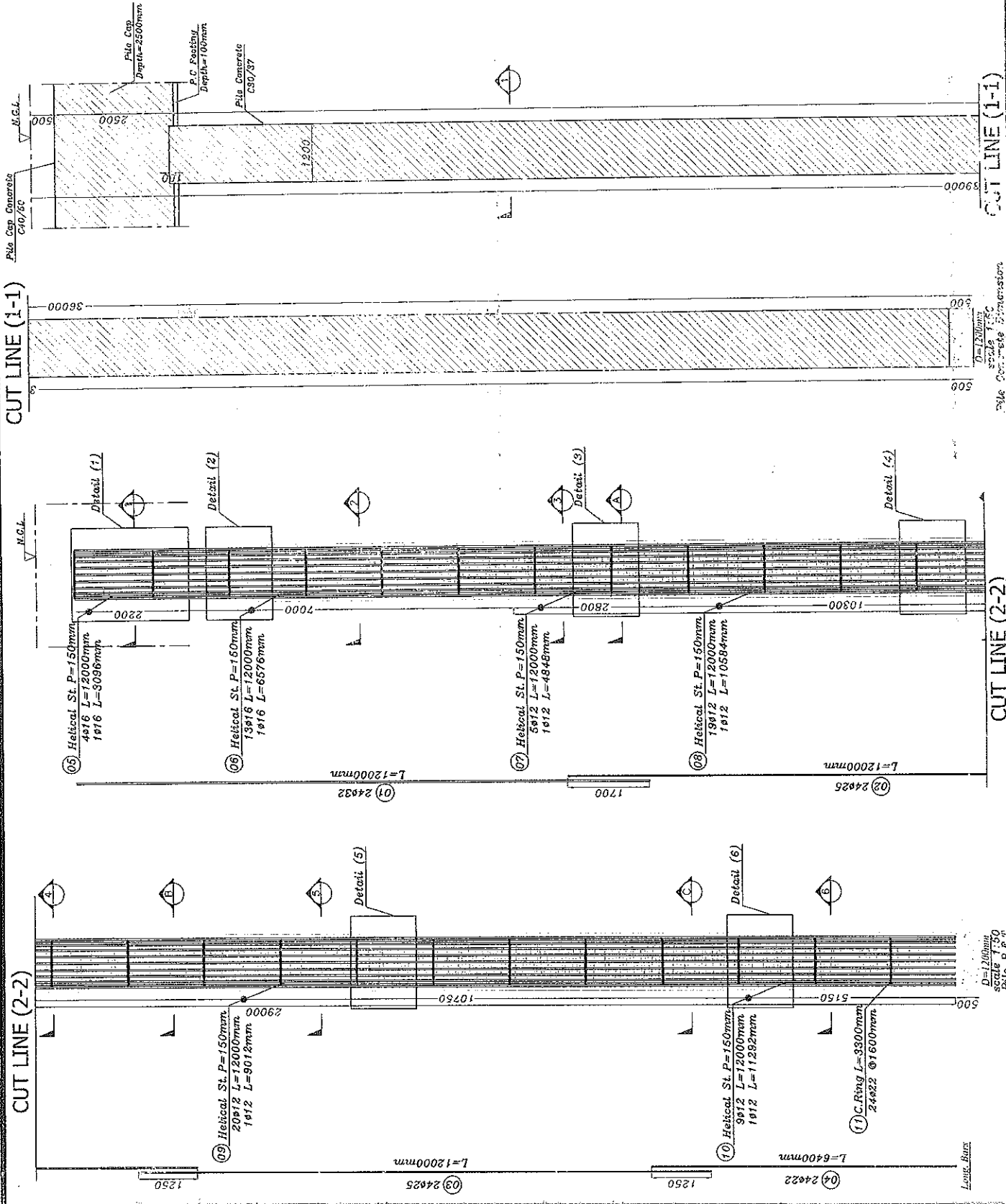
DATE OF CONSULTATION: [Date]

FHECOR Ingenieros Consultores

SCALE: 1:50

PILE REINFORCEMENT MASS SHIP DRAWING

NO.	DATE	REVISION
1	10/10/2011	Initial Design
2	10/10/2011	Revised Design
3	10/10/2011	Final Design



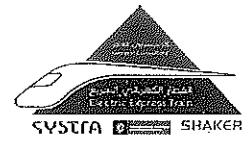
CUT LINE (1-1)

CUT LINE (2-2)

Scale 1:50

Pile R.P.T

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			18/9/2022																	
Received by ER		معمر باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference			
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (22))		
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐ Grade: 350 kg/cm ²
PRESTART CHECKLIST			
IR Approved		Plant & equipment available	
Mix Approved		Back up equipment available	
Setting out Survey Approved		Cast in items secure	
Temp Works Approved		Access route clear	
Formwork Checked		Work area safe to progress	
Start Time for Pour:	5 pm	Concrete Volume:	51 m3

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			18/9/2022	A

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	19
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	18/9/2022
Pile No.	P22	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.685 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.592
Act. Drilling Length	41.3 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.48

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585401.280	830500.647
Actual	585401.290	830500.648
BAUER Survivor		

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.05
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	37
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Geotechnical Log

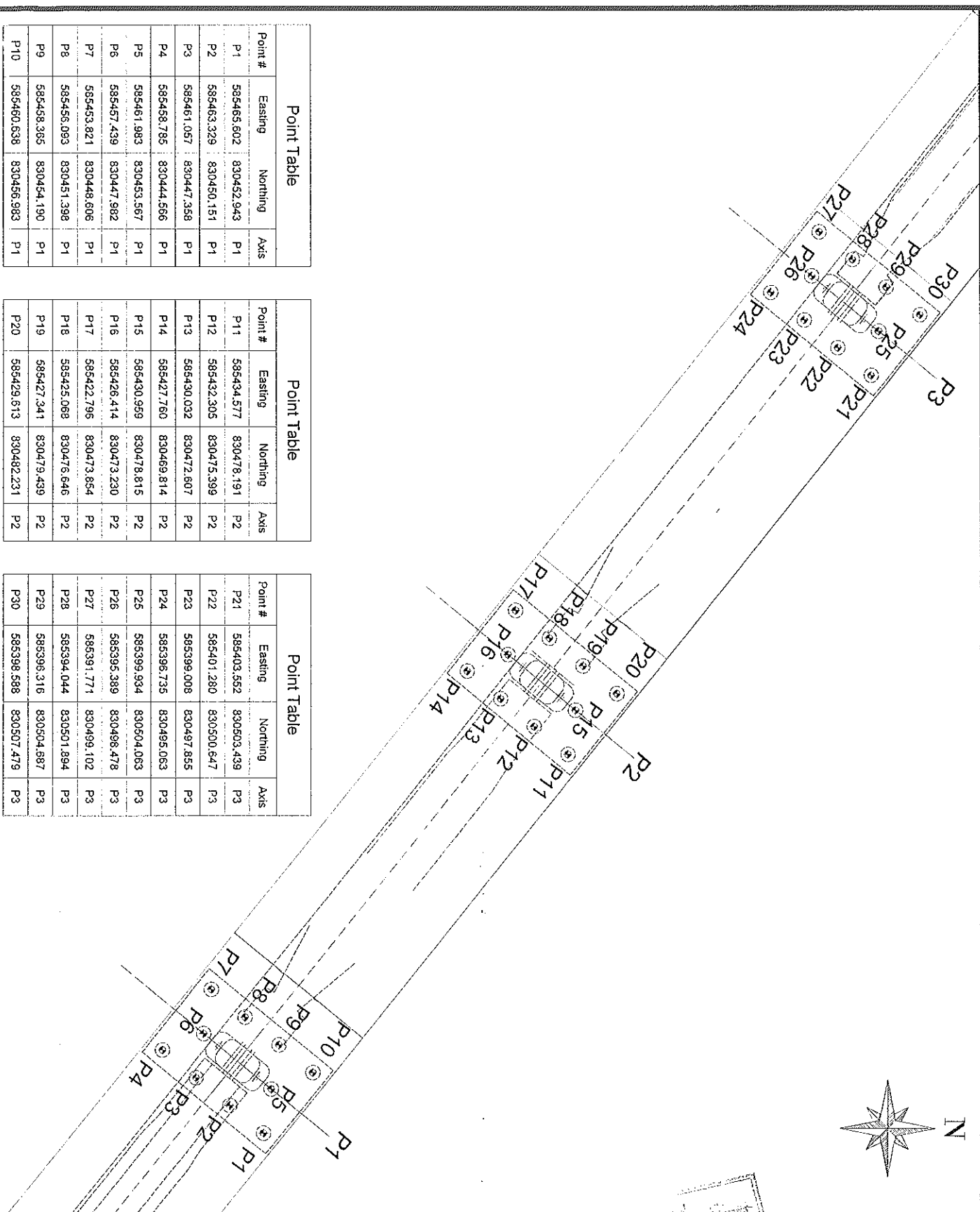
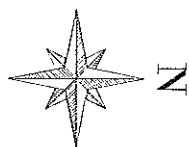
0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	18/9	12:00	14:45	Cleaning	-	-	-	
Install Cages	18/9	14:59	16:34	Pouring	18/9	17:00	18:13	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:
-ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED
-ALL COORDINATES ARE BASED ON EGYPTIAN TRANSVERSE
MERIDIAN, AS PER THE RECEIVED SITE SURVEY.



Point Table

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Point Table

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.795	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table

Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

NAME OF PROJECT ELECTRICAL ADDRESS THAMER-VEHICLE ROAD ELECTION TIME: FROM HERE OF TALK TO A LASHBY NAME OF OWNER: CORRELANT		NAME OF CONTRACTOR: SHAKEN NAME OF CONSULTANT: FHECOR Ingenieros Consultores	
DATE: 2022 SCALE: 1:10 CHECKED BY: Eng. Mohamed Saleh OR: AUTHORIZED PERSON: Eng. Mohamed Saleh		DATE: 2022 SCALE: 1:10 CHECKED BY: Eng. Mohamed Saleh OR: AUTHORIZED PERSON: Eng. Mohamed Saleh	



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والنصر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B22
Dimension : 15*15*15 cm
Date of casting : 18/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	18/09/2022	16/10/2022	28	8.534	149400	664	648
2	18/09/2022	16/10/2022	28	8.564	146300	650	
3	18/09/2022	16/10/2022	28	8.689	141500	629	

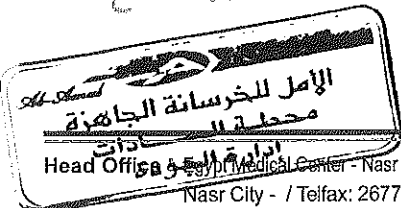
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع



Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Ppart 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industriale Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

الإدارة

إيجيبت ميدكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧).

مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢ - ٢٣٥٧٣٣٠٧

موقع العمل

القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

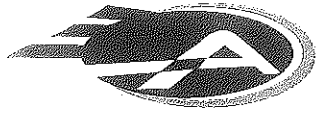
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت : ٠٤٨ / ٢٦٣٠١٤٥ - ف : ٠٤٨ / ٢٦٣٠١٤٥

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م
رأس المال المخصص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B22
Dimension : 15*15*15 cm
Date of casting : 18/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	18/09/2022	25/09/2022	7	8.698	116300	517	476
2	18/09/2022	25/09/2022	7	8.673	101900	453	
3	18/09/2022	25/09/2022	7	8.569	103200	459	

التوقيع: مهندس / أحمد عرابي
مدير المصنع

الاستشارى
شعب

جودة المشروع
رئيس مجلس إدارة
شعب

Head Office : Egypt Medical Center Mall - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717

Workstation : New Cairo - Katamia - Part 82 - 83

Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrireal Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦
مدينة السادات - المنطقة الصناعية الصناعية قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣

GENERAL NOTES

1. All dimensions are in millimeters.
2. Reinforcement shall be provided as per the design.
3. The concrete shall be of grade C30/37.
4. The steel shall be of grade S420MPa.
5. The reinforcement shall be provided as per the design.
6. The concrete shall be of grade C30/37.
7. The steel shall be of grade S420MPa.
8. The reinforcement shall be provided as per the design.
9. The concrete shall be of grade C30/37.
10. The steel shall be of grade S420MPa.

All loads should be applied before construction in situ.

- ASSUMPTIONS:
- T.O.A = Top of Asphalt
 - T.O.C = Top of Concrete
 - T.O.P = Top of Pile Cap
 - T.O.B = Top of Bridge
 - T.O.F = Top of Fender
 - R.G.L = Normal Ground Level

DRAWING INFORMATION

REINFORCED CONCRETE BRIDGE
SECTION THREE (Pile Cap and Pile)
AUTOMATIC 1.000000
REVISION NO. 001
REVISION

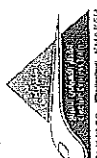
Arab House of Engineering
Civil Engineering
2023/2024
T.O.A = Top of Asphalt
T.O.C = Top of Concrete
T.O.P = Top of Pile Cap
T.O.B = Top of Bridge
T.O.F = Top of Fender
R.G.L = Normal Ground Level

NO.	DATE	ENG.	REVISION
1	2023/01/01	AS	1.000000

OWNER
ARAB HOUSE OF ENGINEERING
Civil Engineering
2023/2024
T.O.A = Top of Asphalt
T.O.C = Top of Concrete
T.O.P = Top of Pile Cap
T.O.B = Top of Bridge
T.O.F = Top of Fender
R.G.L = Normal Ground Level

NAME OF PROJECT
SECTION THREE (Pile Cap and Pile)
AUTOMATIC 1.000000
REVISION NO. 001
REVISION

NAME OF CONSULTANT



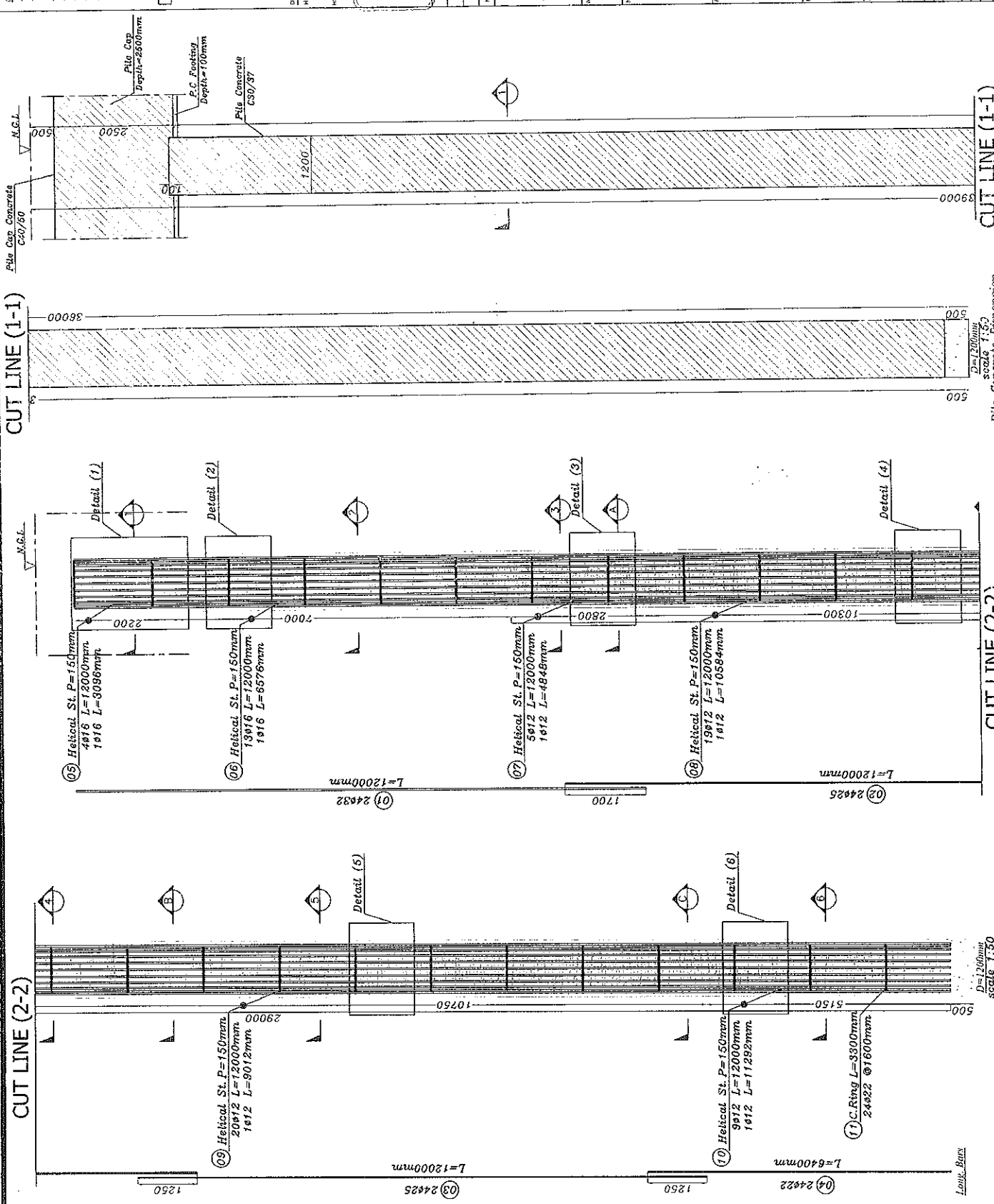
NAME OF CONTRACTOR
FHECOR
Ingenieros Consultores



SCALE
Pile Reinforcement Bars: Shop Drawing

NO.	DATE	ENG.	REVISION
1	2023/01/01	AS	1.000000

APPROVED BY
SUPERVISOR
DR. Tawfik Elmaghrabi



CUT LINE (1-1)

CUT LINE (2-2)

Pile Concrete Dimension
Scale 1:50

Pile R.F.T.
Scale 1:50

All dimensions are in millimeters.
 Q1 and Q2 are maximum values. Q3 and Q4 are minimum values.
 For each parameter, the
 value is the value of the parameter.
 For each parameter, the value is the value of the parameter.

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Curbcut
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Boring
- T.O.F = Top of Frame
- N.G.L. = Normal Ground Level

RECEIVED
GENERAL INVESTIGATION
DIVISION
FEB 10 1968

RECEIVED
GENERAL INVESTIGATION
DIVISION
FEB 10 1968

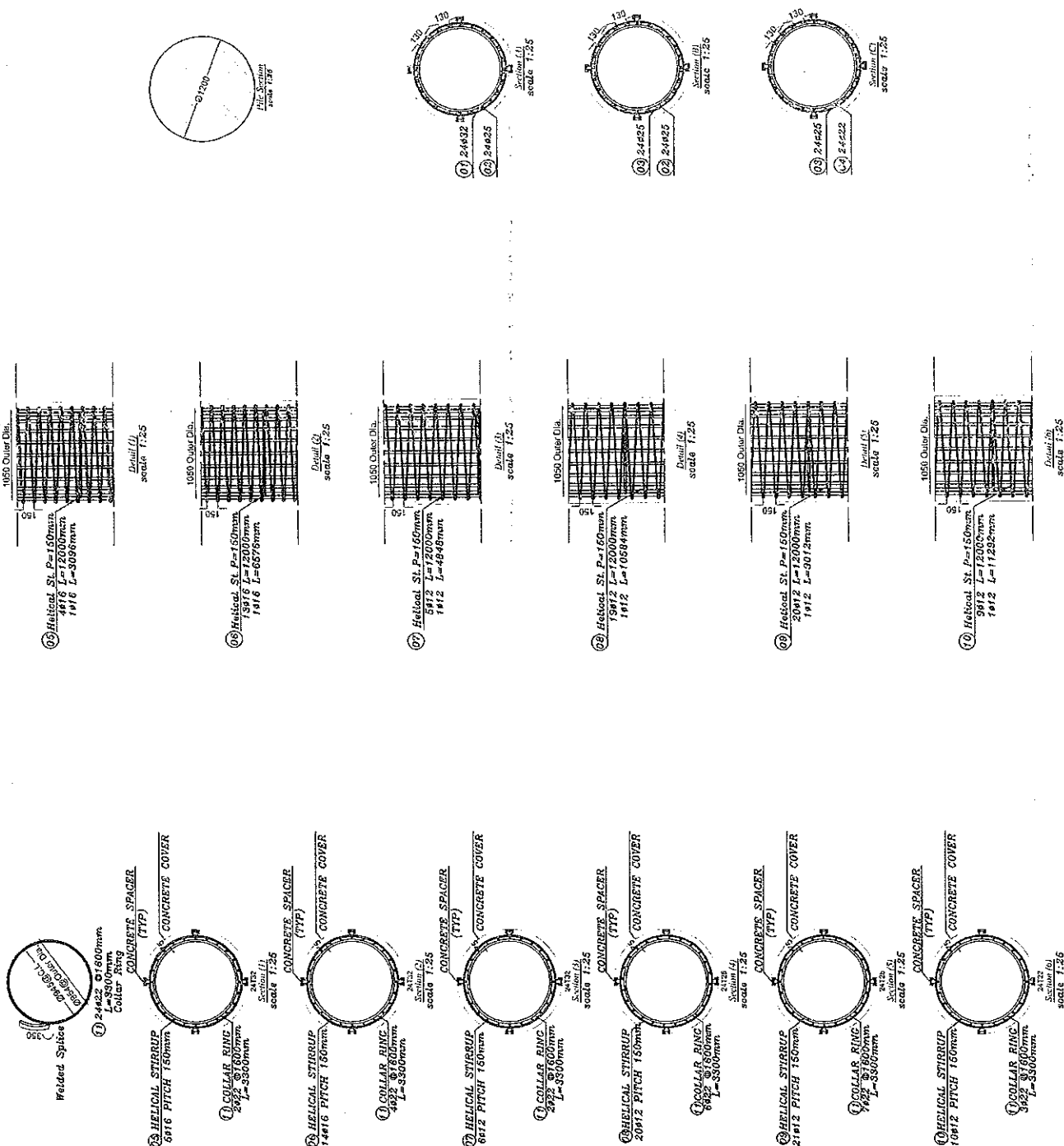
Arab House of Engineering
Tel: +202 7610452

0	ANALYSIS	MS	TESTED FOR CONTAMINATION AS PER METHOD INDICATED ON MAP
NO.	DATE	ENG.	REVISION


وزارة النقل
 وزارة النقل
 الجمهورية العربية السورية
 SYRIAN ARAB REPUBLIC OF
 MINISTRY OF TRANSPORT
 AND COMMUNICATIONS
 and the
 State of Kuwait
 دولة الكويت
 وزارة النقل

NAME OF ORIGIN COMPANY: TARTI

AV
FHECOR
Ingenieros Consultores

[illegible]

- Do not use live flowers. All flowers should be cut and placed in a bucket of water.
- Do not use yeast.
- Use Coarse Grind - Pine Cap Collection 02-20
- Coarse over 15 yr
- Use Spore Rich material (20-22) 24-26
- Use Spore Rich material (20-22) 24-26
- Use Spore Rich material (20-22) 24-26

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Natural Ground Level

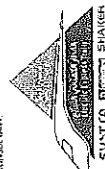
MSHA-V001-CC-010-001-NOT-E02	MUSKOGEE ROAD BRIDGE GENERAL NOTES ADJUSTMENT 1, DEFINITION
MSHA-V001-CC-210-002-PIE-E02	MUSKOGEE ROAD BRIDGE SUBSTRUCTURE PIERS P1, P2, P3, REINFORCEMENT 11)

[illegible]


وزارة التعليم
 REPUBLIC OF EGYPT
 الجمهورية العربية السورية
 وزارة التعليم
 MINISTRY OF EDUCATION
 الهيئة العامة للتعليم والتقنية
 والتعليم العالي
 جامعة القاهرة
 جامعة القاهرة
 جامعة القاهرة

NAME OF PROJECT: ELECTRICAL EXPRESS TWIN HIGH SPEED RAIL SECTION THREE (FROM M51 OF MILE TO ALABAMA)

STATUTE OF THE COMMONWEALTH OF MASSACHUSETTS



1413044

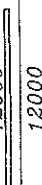
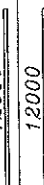
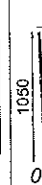
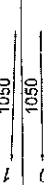
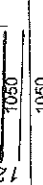
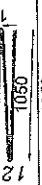
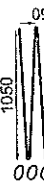
W FHECOR
Ingenieros Consultores



ONC. TITLE. _____

FILES AT AXES (P1, P2, P3)

DWG NO:	DATE:	SCALE:
PROJECT NO: 11069 PLE-00	08 DEC	A5 SHEET
DRAWING BY:	CHECKED BY:	REPAID BY:
ENG: Elgiti Murty	ENG: Abdullah Mubani	ENG: Mustafiz Saleh
SUPERVISOR:	APPROVED BY:	
DN: Mustafiz Kamran	Eng: Zaid Ali	

BAR MARK	BAR DIA.	SYMBOL(mm.)	NUMBER QTY	LENGTH (mm)	TOTAL WEIGHT (kg)
01	32		24	12000	1820.44
02	25		24	12000	1111.11
03	25		24	12000	1111.11
04	22		24	6400	458.90
05	16		4+1	12000 + 3096	75.85 + 4.89
06	16		13+1	12000 + 6576	246.51 + 10.39
07	12		5+1	12000 + 4848	53.33 + 4.30
08	12		19+1	12000 + 10584	202.66 + 9.40
09	12		20+1	12000 + 9012	213.33 + 8.01
10	12		9+1	12000 + 11292	96.00 + 10.03
11	22		24	3300	236.62

Total 5672.88

Pile Diameter	Ø12	Ø16	Ø22	Ø25	Ø32
TOTAL LENGTH(M)	678.47	213.69	233.39	577.2	288.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.

REQUEST to POUR CONCRETE



Contractor Company			Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
			10/9/2022																	
Received by ER		محرم باخوم	CON	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													
Contractor Reference	النيل العامة																			

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW

Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (2 3))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 370 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 5:56 pm	Concrete Volume: 51 m3			

THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW

Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	

Comments by:	Comments by:

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			10/9/2022	A



SVSTRA

AGENCY FOR INVESTING IN THE
NILE BASINBored Piles Construction
Pile Record SheetPile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	11
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	10/9/2022
Pile No.	P23	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.38 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	39.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.290
Act. Drilling Length	41 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.1

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585399.008	830497.855
Actual	585399.001	830497.841
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

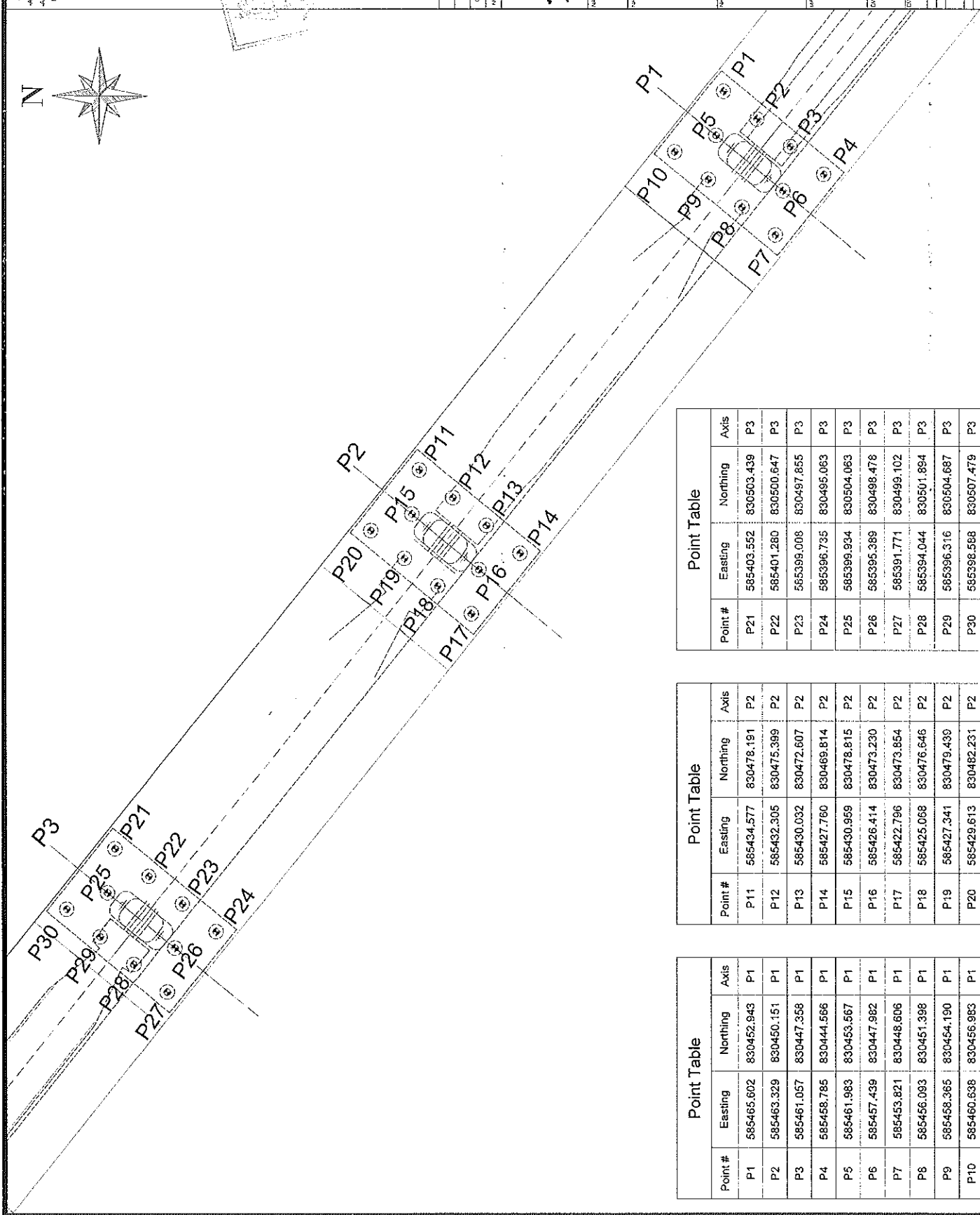
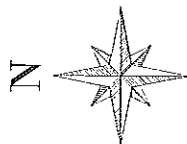
Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	10/9	11:30	14:20	Cleaning	-	-	-	
Install Cages	10/9	16:00	17:18	Pouring	10/9	17:56	18:57	

	BAUER EGYPT	NILE COMPANY	OWNER/If Required
Signature			

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM (EGYPTIAN TRANSVERSE
MERKATOR) AS PER THE RECEIVED SITE SURVEY.



Point Table			
Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1

Point Table			
Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point Table			
Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585399.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.568	830507.479	P3

10	04/2021	N.A.	ISSUED FOR CONSTRUCTION	REVISION:
----	---------	------	-------------------------	-----------

OWNER

البحرية
وزارة النقل
الميناء العامة للنقل والبواخر
والنقل البري

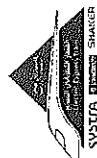
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
MINISTRY OF TRANSPORT
الميناء العامة للنقل والبواخر
والنقل البري

١٩٧٤
١٩٧٥

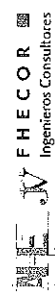
مصر - القاهرة

TITLE OF PROJECT
ELECTRICAL EXPRESS TRAIN (HIGH SPEED RAIL)
SECTION THREE FROM WEST OF NILE TO EL DAKKI

NAME OF CHAIRMAN: _____



NAME OF CONTRACTOR CONSULTANT



БЮДЖЕТ

REGWA BRIDGE
PILES COORDINATES FOR APPROVED AXIS
FROM P1 : P3

DATE	08-02-08	SCALE	: 220
------	----------	-------	-------

DESIGNED BY	CHECKED BY
DATE	DATE

Cellular Network	Signal Strength (dBm)
Cellular Network A	-110
Cellular Network B	-115
Cellular Network C	-120

SUMMERVILLE

APPROVED BY:



Al-Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الأسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B23
Dimension : 15*15*15 cm
Date of casting : 10/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	10/09/2022	08/10/2022	28	8.625	135500	602	582
2	10/09/2022	08/10/2022	28	8.547	116900	520	
3	10/09/2022	08/10/2022	28	8.601	140700	625	

التوقيع:

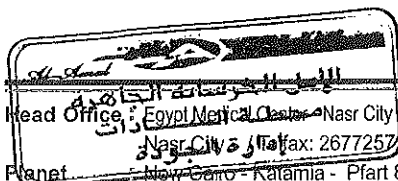
الاستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع

ناصر المصنع



الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧) : Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).
مدينة نصر / تليفاكس : ٢٣٥٧٢٣٠٧ - ٢٦٧٧٢٥٧٢ : Fax: 26772572 - 23573307
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497
مدينة نصر / تليفاكس : ٢٣٥٧٢٣٠٧ - ٢٦٧٧٢٥٧٢ : Fax: 26772572 - 23573307
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497
مدينة نصر / تليفاكس : ٢٣٥٧٢٣٠٧ - ٢٦٧٧٢٥٧٢ : Fax: 26772572 - 23573307
القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣ : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الاسمنتية
رأس المال المصرى به ٦٠ مليون جنيه
والمصدر ٧٥ مليون جنيه

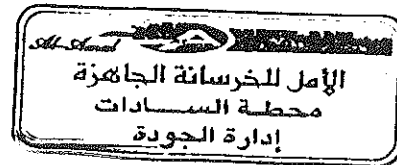
COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائى السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B23
Dimension : 15*15*15 cm
Date of casting : 10/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	10/09/2022	17/09/2022	7	8.654	107200	476	456
2	10/09/2022	17/09/2022	7	8.701	97310	432	
3	10/09/2022	17/09/2022	7	8.711	103500	460	

التوقيع:

مركز هليوبوليس
مهندس / أحمد عرابى
مدير المصنع



Head Office : 41 Losaka st. - Second Floor - Flat 3 Mohamed El-Maqrief st.
Nasr City - / Telfax: 26772572
Planet : New Cairo - Katamia - Ppart 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industriai Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : ٤١ ش لوساكا - الدور الثانى شقة ٣ - متفرع من ش محمد المقرئف
مدينة نصر / تليفاكس : ٢٦٧٧٢٥٧٢
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤١١٣٦ / ف : ٢٩٨٤٠١٠٩
٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٠
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٧٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website : www.alamalreadymix.com

إستلام موقع Site Handover Sheet (CHUM)

المالك (Owner):

المستلم (Client):

المستلم (NECB Client):

المستلم (Project Name):

المستلم (Project Name):

المستلم (Project Name):

تاريخ التسليم: 2023/ 3 / 18

تاريخ التسليم: 2023/ 3 / 18

تاريخ التسليم: 2023/ 3 / 18

تاريخ التسليم: 2023/ 3 / 18

تاريخ التسليم: 2023/ 3 / 18

ملاحظات الموقع (Notes)

No.	Element Type	Element ID	No. of Tubes	Available No. of Tubes	D (cm)	L (m)	Other measurements	
							Other measurements	Other measurements
1	Pile	P1-P8	4	4	120	40		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								

المستلم (Client):

المستلم (NECB Client):

المستلم (Project Name):

المستلم (Project Name):

المستلم (Project Name):

تاريخ التسليم: 2023/ 3 / 18

تاريخ التسليم: 2023/ 3 / 18

تاريخ التسليم: 2023/ 3 / 18

تاريخ التسليم: 2023/ 3 / 18

تاريخ التسليم: 2023/ 3 / 18



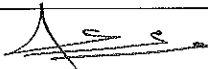
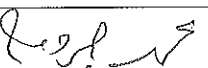
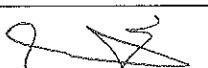
REQUEST to POUR CONCRETE



Contractor Company			Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
			14/9/2022								
Received by ER		محرم باخوم	CON	C1	C2	C3	DD	MM	YY	HH	MM
Contractor Reference	النيل العامة										

CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

THE FOLLOWING TEST RESULTS ARE ATTACHED FOR REVIEW				
Mix Approval Reference				
Location of Pour	Electrical High Speed (From West Of Nile To ALAMAIN) From 189+540 Km to 189+680 Km (PILES P (24))			
Concrete Type:	Grout Mix ☐	Lean Mix ☐	Structural Mix ☐	Grade: 30 kg/cm ²
PRESTART CHECKLIST				
IR Approved		Plant & equipment available		
Mix Approved		Back up equipment available		
Setting out Survey Approved		Cast in items secure		
Temp Works Approved		Access route clear		
Formwork Checked		Work area safe to progress		
Start Time for Pour: 12:58 pm	Concrete Volume: 51 m3			
THE FOLLOWING DOCUMENTS ARE ATTACHED FOR REVIEW				
Item	Document No	Revision	Title	Number of Sheets
1			COMPRESSIVE STRENGTH OF TEST CONCRETE CUBE SPECIMENS	
2			STEEL RFT SHOPDRAWING FOR PILES	
3			PILES COORDINATES	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor				A
QA/QC				A
Employer Representative			14/9/2022	A



BAUER EGYPT



SYSTRA

ACE CONSULTING ENGINEERS
MORADY BAKHOUN

Bored Piles Construction

Pile Record Sheet

Pile Data

Project	ELECTRIC EXPRESS TRAIN PROJECT-REGWA BRIDGE				
Owner	MINISTRY OF TRANSPORT			Report No.	15
Subcontractor	GENERAL NILE COMPANY FOR ROADS&BRIDGES			Date	14/9/2022
Pile No.	P24	Structure	bridge	Pile Cutoff Level	-
Pier	P3	Ground Level	68.00	Pile Toe Level	28.907
Theoretical Pile Length from caisson level	40.58 m	Water Table Level	N/A	Permanent Casing Level	N/A
Req. Drilling Length From Ground Level	38.09 m	Theoretical Concrete Q	46.33 m ³	Temporary Casing Level	69.487
Act. Drilling Length	40.8 m	Act. Concrete Q	51 m ³	Steel Top Level	67.107
Permanent Casing Dim. L(m)×D(m)×Thick. (mm)	N/A	Steel Cage	Circular piles	Hook Length	2.38

Pile Survey

Coordinates	EAST	NORTH
Theoretical	585396.735	830495.063
Actual	585396.731	830495.073
BAUER Survivor		

Geotechnical Log

0.0	CAISSON L.
5.0	
10.0	
15.0	
20.0	
25.0	
30.0	

Bentonite Slurry Test

Properties	Fresh Bentonite		Before Cages Installation	
	Req. Limits	Actual	Req. Limits	Actual
Density (gm/cm ³)	Less Than 1.1	1.02	Less Than 1.5	1.03
Viscosity(Sec.)	30:70 Sec.	34	≤90 Sec.	38
Sand Content %	Less than 4%	N/A	Less than 2%	1.50

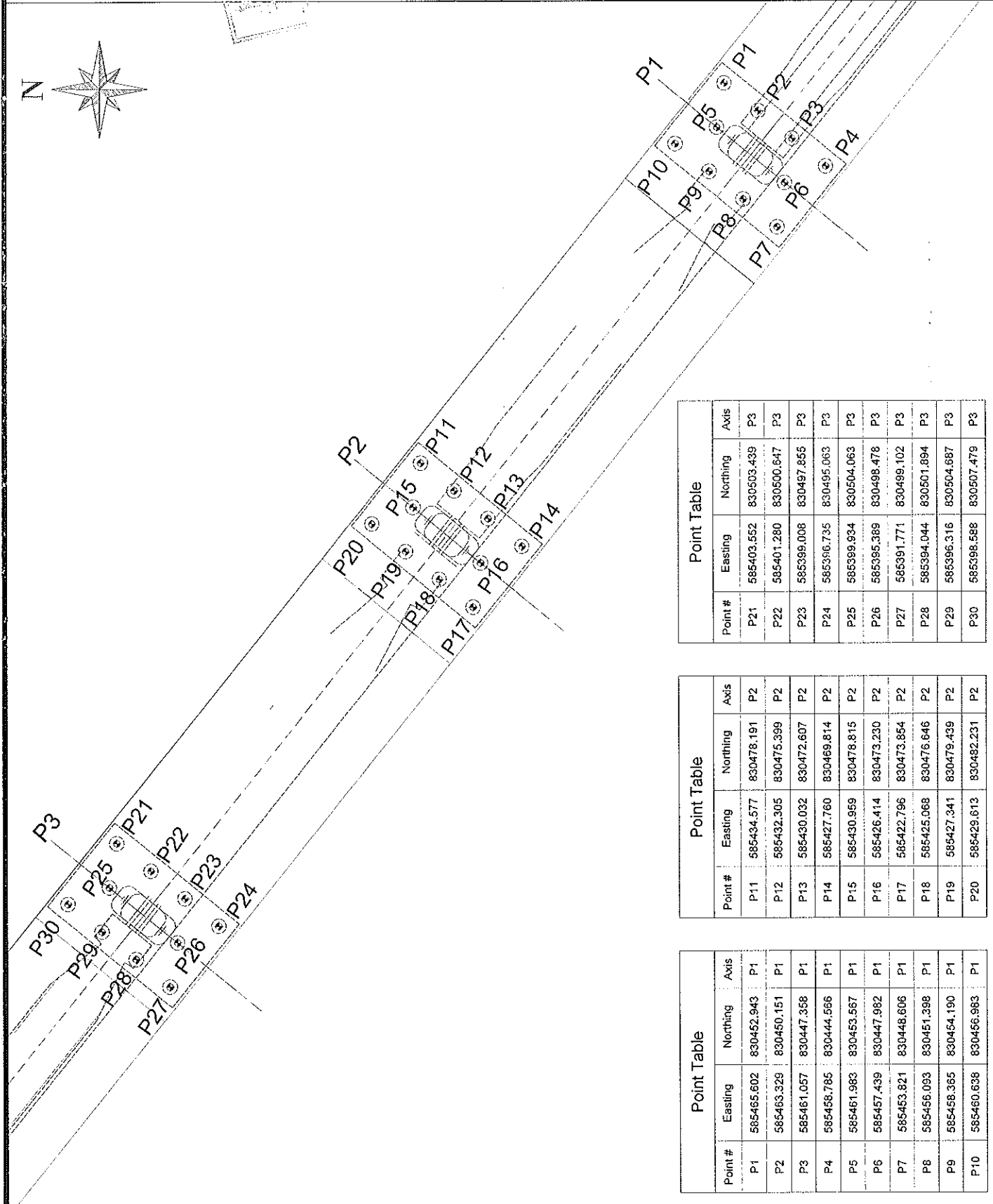
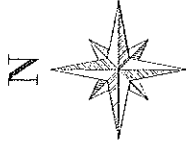
Time Survey

Activity	Date	From	To	Activity	Date	From	To	Remarks
Drilling	13/9	13:45	18:00	Cleaning	-	-	-	
Install Cages	14/9	11:04	12:20	Pouring	14/9	12:58	2:00	

	BAUER EGYPT	NILE COMPANY	OWNER/if Required
Signature			

NOTES:

ALL COORDINATES ARE IN METERS UNLESS OTHERWISE MENTIONED.
ALL COORDINATES ARE BASED ON ETM/EGYPTIAN TRANSVERSE
MERCATOR AS PER THE RECEIVED SITE SURVEY.

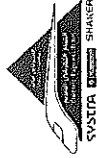


NO.	DESCRIPTION	DATE	QING	REVISION
01	ISSUED FOR CONSTRUCTION			

المالك
جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT
وزارة النقل
Ministry of Transport
الهيئة العامة للطرق والكباري
General Authority of Road and Bridges
القاهرة
CAIRO

NAME OF PROJECT
EGYPTIAN ROAD AND BRIDGE AUTHORITY
SECTION THREE FROM WEST OF FALE TO DAMRAH

NAME OF OWNER CONSULTANT



NAME OF CONTRACTOR CONSULTANT



WWW.CONTRACTOR



DRAWING TITLE REGINA BRIDGE PILES COORDINATES FOR APPROVED AXIS FROM P1-P3	
NO. OF SHEETS	1
DATE	2010
DESIGNED BY	Eng. Mohamed Salah
CHECKED BY	
APPROVED BY	Eng. Jaber Taha

Point #	Easting	Northing	Axis
P21	585403.552	830503.439	P3
P22	585401.280	830500.647	P3
P23	585398.008	830497.855	P3
P24	585396.735	830495.063	P3
P25	585399.934	830504.063	P3
P26	585395.389	830498.478	P3
P27	585391.771	830499.102	P3
P28	585394.044	830501.894	P3
P29	585396.316	830504.687	P3
P30	585398.588	830507.479	P3

Point #	Easting	Northing	Axis
P11	585434.577	830478.191	P2
P12	585432.305	830475.399	P2
P13	585430.032	830472.607	P2
P14	585427.760	830469.814	P2
P15	585430.959	830478.815	P2
P16	585426.414	830473.230	P2
P17	585422.796	830473.854	P2
P18	585425.068	830476.646	P2
P19	585427.341	830479.439	P2
P20	585429.613	830482.231	P2

Point #	Easting	Northing	Axis
P1	585465.602	830452.943	P1
P2	585463.329	830450.151	P1
P3	585461.057	830447.358	P1
P4	585458.785	830444.566	P1
P5	585461.983	830453.567	P1
P6	585457.439	830447.982	P1
P7	585453.821	830448.606	P1
P8	585456.093	830451.398	P1
P9	585458.365	830454.190	P1
P10	585460.638	830456.983	P1



Al Amal Ready mix

الأمل

للخرسانة الجاهزة والمنتجات الاسمنتية
رأس المال المرخص به ١٥٠ مليون جنيه
والنصر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B24
Dimension : 15*15*15 cm
Date of casting : 14/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	14/09/2022	12/10/2022	28	8.647	132800	590	606
2	14/09/2022	12/10/2022	28	8.599	140700	625	
3	14/09/2022	12/10/2022	28	8.532	135500	602	

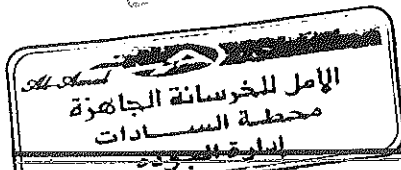
التوقيع:

الاستشارى

جودة المشروع

مهندس / أحمد عرابى

مدير المصنع



تأمر بالاعمال

Head Office : Egypt Medical Center - Nasr City - Tenth District - Fifth Floor Unit (407).

Nasr City - / Telfax: 26772572 - 23573307

Planet : New Cairo - Katamia - Pfort 82 - 83

Tel.: 29841136 / Fax.: 29840109

01227855596 - 01068844170 - 01006033860

El Sadat City - Industrelal Zone (7) - Part 7003 - 7005

Tel.: 048 2630145 / Fax.: 048 2630140

01028459673 - 01006880635 - 01004976497

E-mail: info@alamalreadymix.com

website: www.alamalreadymix.com

الإدارة : إيجيبت ميديكال سنتر - مدينة نصر - المنطقة العاشرة - الدور الخامس وحدة (٤٠٧)

مدينة نصر / تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٦٧٧٢٥٧٢

موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣

ت: ٢٩٨٤٠١٣٦ / ف: ٢٩٨٤٠١٠٩

٠١٠٠٦٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٩٦

مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥

ت: ٠٤٨ / ٢٦٣٠١٤٠ - ف: ٠٤٨ / ٢٦٣٠١٤٠

٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٠٢٨٤٥٩٦٧٣



Al Amal Ready mix

الأمل

للخرسانة الجاهزة ش.م.م.
رأس المال المرخص به ١٥٠ مليون جنيه
والمصدر ٥٠ مليون جنيه

COMPRESSIVE STRENGTH OF
TEST CONCRETE CUBE SPECIMENS
BS 1881 : PART4 : 1983

PROJECT : مشروع القطار الكهربائي السريع (كوبرى ريجوا)
CLIENT : شركة النيل العامة للطرق والكبارى
ELEMNET : خازوق B24
Dimension : 15*15*15 cm
Date of casting : 14/09/2022
MIX DESIGN STRENGTH : 370 kg / cm2

NO	CASTING DATE	TESTING DATE	AGE (day)	weight (kg)	crushing load (kg)	compressive strength (kg / cm2)	Average
1	14/09/2022	21/09/2022	7	8.608	109900	488	480
2	14/09/2022	21/09/2022	7	8.562	105900	471	
3	14/09/2022	21/09/2022	7	8.439	108000	480	

التوقيع: مهندس / أحمد خرابي
مدير المصنع

الاستشارى
[Signature]

جودة المشروع

مركز صلاح بوليس
[Signature]

Head Office : Egypt Medical Center Mali - Fourth Floor - Dr. Shimi st. - Tenth District
Nasr City/ Telefax: 02 23573307 - 02 24713558
Mobile: 01101116717
Workstation : New Cairo - Katamia - Part 82 - 83
Tel.: 29841136 / Fax.: 29840109
01227855596 - 01068844170 - 01006033860
El Sadat City - Industrial Zone (7) - Part 7003 - 7005
Tel.: 048 2630145 / Fax.: 048 2630140
01028459673 - 01006880635 - 01004976497

الإدارة : مول إيجيبت ميديكال سنتر - الدور الرابع - ش.د. الشيمي - المنطقة العاشرة
مدينة نصر/ تليفاكس : ٢٣٥٧٣٣٠٧ - ٢٤٧١٣٥٥٨
موبايل : ٠١١٠١١٦٧١٧
موقع العمل : القاهرة الجديدة - القطامية قطعة ٨٢ - ٨٣
ت : ٢٩٨٤٠١٠٩ / ف : ٢٩٨٤١١٣٦
٠١٠٠٩٠٣٣٨٦٠ - ٠١٠٦٨٨٤٤١٧٠ - ٠١٢٢٧٨٥٥٥٩٦
مدينة السادات - المنطقة الصناعية السابعة قطعة ٧٠٠٣ - ٧٠٠٥
ت : ٠٤٨ / ٢٦٣٠١٤٠ - ف : ٠٤٨ / ٢٦٣٠١٤٥
٠١٠٠٤٩٧٦٤٩٧ - ٠١٠٠٦٨٨٠٦٣٥ - ٠١٢٨٤٥٩٦٧٣

E-mail: info@alamalreadymix.com
website: www.alamalreadymix.com

- AU (Anzahl) und in mehreren
- Du sollst eine Liste von 4-10 AU erstellen und sie auf
beide Seiten kopieren!
- Du darfst die DU's 2-3, 4-10 kopieren
- Du darfst nur 13 mm

ABBREVIATION :

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

REUR-0001-CC-010-001-NOT-002	MEOWA ROAD BRIDGE OFFICIAL NOTES ARGUMENT 1, DEFINITION REOWA ROAD BRIDGE SUBSTRUCTURE PIERS #1, P2, P3 (SHEPHERD-CANE)
-------------------------------------	---

Q.	DATE	BY	REVISION
0	11-10-2002	MAH	ISSUED FOR CONSTRUCTION & PERMITS PROJECT No. 1003

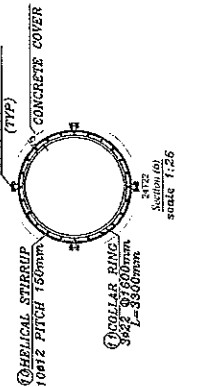
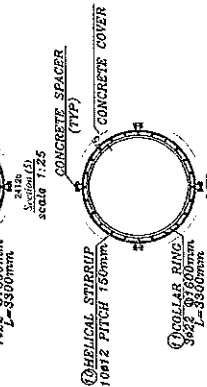
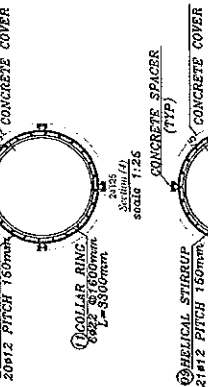
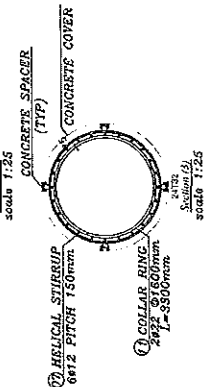
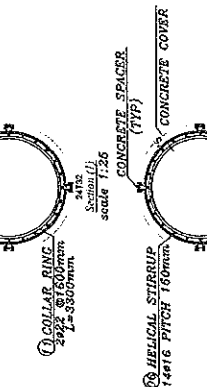
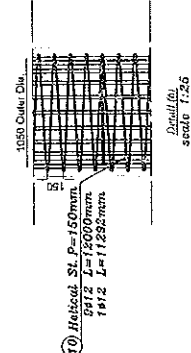
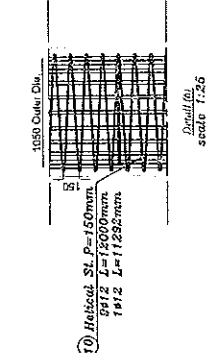
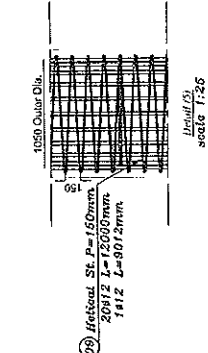
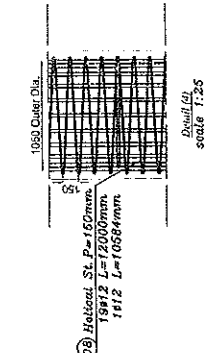
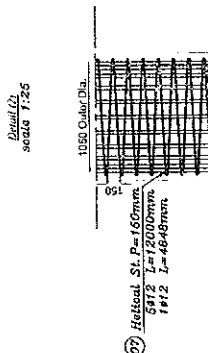
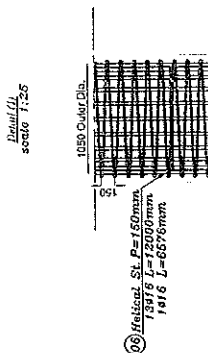
NAME OF PROJECT: ELECTRICAL EXPULSION THRU HIGH SPEED RAIL
SECTION THREE (FROM WEST OF HILL TO ALABAMA)

AV
FHECOR 
Ingenieros Consultores



DESIGN:	DATE:	SCALE:
---------	-------	--------

03-2622	AS SHOWN
RECEIVED BY:	RECEIVED BY:
CHKD: Abdullah Mubani	END: Naimiyah Dadi
DRAWING BY:	APPROVED BY:
END: Rajan Fawzy	APPROVED BY:
SUPERVISOR:	SUPERVISOR:
OP: Mohamad Lashin	OP: Mohamad Lashin



1. **අධ්‍යයනය:** අධ්‍යයනය කළ යුතුය.
 2. **පාඨමාලා:** පාඨමාලා කියවිය යුතුය. **මුද්‍රාණය:** මුද්‍රාණය කළ යුතුය.
 3. **විකුණු:** විකුණු කළ යුතුය.
 4. **විකුණු:** විකුණු කළ යුතුය.
 5. **විකුණු:** විකුණු කළ යුතුය.

ABBREVIATION:

- T.O.A = Top of Asphalt
- T.O.C = Top of Column
- T.O.P = Top of Pile Cap/Pile
- T.O.B = Top of Bearing
- T.O.F = Top of Frame
- N.G.L = Normal Ground Level

CONVINCING EVIDENCE:

MSK-NV001-CC-010A01-NOT-F02	MUSKOGEE ROAD BRIDGE CENTRAL NOTE ADJUTANT T. DEFINITION
MSK-NV001-CC-010A02-PIE-F02	MUSKOGEE ROAD BRIDGE SUBSTRUCTURE PIERS #1, #2, #3 REINFORCED

NO.	DATE	ENG.	REVISION
1	3/14/2024	MAC	ISSUED FOR CONSTRUCTION AND PER REVIEW NOTICE NO. 1048

113

OWNERS:

جمهورية مصر العربية
ARAB REPUBLIC OF EGYPT

وزارة النقل
MINISTRY OF TRANSPORT

إدارة الموانئ البحرية والجمارك
MARITIME AND CUSTOMS ADMINISTRATION

قناة السويس
SUZUKANA CANAL

مصر - قناة السويس
EGYPT - SUZUKANA CANAL

NAME OF PROJECT:

ELECTRICAL EXPRESS TRAIN (HIGH SPEED-RAIL)
SECTION THREE (FROM WEST OF NILE TO ALABAMA)

CONSTITUTIONAL CONSIDERATIONS



STATE OF CONNECTICUT

JOSE V. FHECORU
Ingenieros Consultores

RECEIVED



9.00

OWO. TITLE.

1

DWG. NO.: DATE: SCALE:

194E-0001-SD-110-003 JUL-200	08-2022	AS SHOWN
------------------------------	---------	----------

REVISION BY:	CHECKED BY:	DRAWING BY:
ENG. H. H. H. H.	ENG. H. H. H. H.	ENG. H. H. H. H.

ENG. Evelyn Fawzy	END. Abdullahi Mohamed	END. Haroonah D...
-------------------	------------------------	--------------------

	ms
--	----

DATE	TIME	APPROVED BY:
		SUPERVISOR

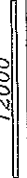
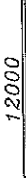
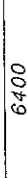
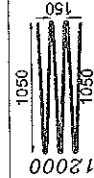
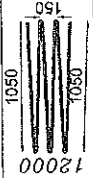
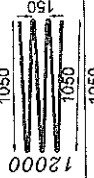
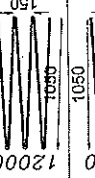
OK, Robinson & Leavison	Eng. Andrew Taylor
-------------------------	--------------------

1111

[illegible]

1000

[illegible]

BAR MARK	BAR DIA.	SYMBOL(mm.)	NUMBER QTY	LENGTH (mm.)	TOTAL WEIGHT (kg)
01	32		24	12000	1820.44
02	25		24	12000	1111.11
03	25		24	12000	1111.11
04	22		24	6400	458.90
05	16		4+1	12000 + 3096	75.85 + 4.89
06	16		13+1	12000 + 6576	246.51 + 10.39
07	12		5+1	12000 + 4848	53.33 + 4.30
08	12		19+1	12000 + 10584	202.66 + 9.40
09	12		20+1	12000 + 9012	213.33 + 8.01
10	12		9+1	12000 + 11292	96.00 + 10.03
11	22		24	3300	236.62

Total	5672.88
-------	---------

Pile Diameter	Ø12	Ø16	Ø22	Ø25	Ø32
TOTAL LENGTH(M)	678.47	213.69	233.39	577.2	268.04
TOTAL WEIGHT(Kg)	597.06	337.64	695.52	2222.22	1820.44

- ALLOWABLE PILE CAPACITY 1200 MM DIAMETER = 8000 KN ACCORDING TO GEOTECHNICAL REPORT.
LENGTH OF PILE = 20 M BELOW GROUND LEVEL ACCORDING TO GEO-TECHNICAL REPORT.