محضر استلام موقع

مشروع: أعمال الجسر الترابي لمسار القطار الكهرباتي السريع الخط الأول (العين السخنة - مطروح) قطاع (العلمين/فوكة) لتنفيذ المسافة من الكم 476+600 الى الكم 470+470 بطول 1 كم إتجاه سيدي كرير

تنفيذ: شركة المؤسسة المصرية المتحدة إشراف: المنطقة الخامسة منطقة غرب الدلتا طبقاً للعقد رقم (2024/2023/256) بتاريخ 2023/8/22 إنه في يوم الثلاثاء الموافق 2023/08/27 اجتمع كل من:-

مدير عام مشروعات - الهينة العامة للطرق والكباري

1- السيد المهندس /عجد حسني فياض

مدير مشروع - الهينة العامة للطرق والكباري

2- السيد المهندس /إبراهيم عبد الله الحناوي

مدير مشروع شركة المؤسسة المصرية المتحدة

3- السيد المهندس/ محمود شاويش

وذلك للمرور على مسار العملية المذكورة عاليه لاستلام الموقع:-وقد تبين أن الموقع خالياً من العوائق الظاهرية ويسمح بالبدء في التنفيذ وبناء عليه يعتبر تاريخ 2023/8/26 هو تاريخ استلام الموقع وبدء الأعمال بالعملية واقفل المحضر على ذلك ووقع الحضور

التوقيعات

رئيس الإدارة المركزية

منطقة غرب الدلتا

الاسكانة إلة - مرسسي مطرو

"هانی محمد محمود طه"

3- معود فاويش

-2

or-1









مشروع القطار الكهريائي فالق (اسرعة قطاع والعلمين - أوكة) المقايسة التقديرية لبتود الإعمال تنفياء المؤسسة المصربة المتحدة انجاه سيدي كرير القطاع من المحطة 476+600 الى 477+600

رقم افياد	بيان الأصال	fan,git	April 1	Aut 1	JAMY 1
T	اصل فرنم				-
1.5	ا حسل تدميل و غرويد و نكل تتربة مطابقة للمواصلات و تشفيلها بالطاعام الأن النموية يست لا يتربد من ١٠ مم على ملموب . امتر و بعداد الازيد عن ١٠ مم لاستامال الملموب التسميس الشابل الرمس و الاللة واسبة تمثل لاباورنها الالل عن ١٠٠٠) الارتباء بالمياة الاصوابية للرمسول في نمية الرطوبة المحاوية و العامل الديار اسات الرمسول في السيء المالة وقاة (١٠٠٠) الالاثاة المورية ويتم التنفيذ طبقا المناسب التصميمية و الطاعات العرضية المراجعية و الرسومات الاطمالية المحادثة و المواصدة المحادثة المحادثة المحادثة المحادثة المورية ويتم الشناب عالم 1٠٠١ وابدة اللهاء المالة المالة المحادثة المحادث	3,-	27,981.36	85	2,376,716
	عائرة سنطة التي ١١٣ تم	3+	27,961.36	295.40	8,259,785
	عائرة تعصيل رسوم النازنة والموازين طبقا لالعة للثرنة الوطنية	30	27,961.36	13	363,498
	الإجمالي				11,000,000

مدير المشروع العقاول

م / معمود شاویش

مشروع القطار السريع (العلمين -فوكة) المؤسسة المصرية المتحدة من المحطة 475+600 الى المحطة 478+000

محضر تحديد مسافة نقل

(نقل الاتربة)

الله في يوم الاربعاء الموافق :- 2022/5/18

بناء على طلب المقاول المؤسسة المصرية المتحدة للمقاولات العامة لتحديد مسافة نقل الاتربة من محجر (المصرية) على طريق وادى النطرون العلمين للمشروع المذكور أعلاه.

تم زيارة المحجر من قبل:-

ممثل الهيئة العامة الطرق والكبارى

مدير مشروع الاستشاري مكتب درسعد الجيوشي

ممثل استشارى المسلحه مكتب المساحة XYZ

مندوب المؤسسة المصرية المتحدة

1- السيد المهندس / ابراهيم الحناوي

2- السيد المهندس / مصطفى نجم

3- السيد المهندس / محمد خليل

4- السيد المهندس / محمود شاويش

وتبين أن المحجر على مسافة 213 كم من منتصف قطاع المؤسسة المصرية المتحدة

N 30°33'19 .7"

E 29°45'06. 7"

احد اثى المحجر

N 31° 2'18.80"

E 28°11'30.38"

احداثي منتصف القطاع

وعلى ذلك تم توقيع،،

-4- E- -4

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MATERIAL INSPECTION REQUEST Contractor Company Issued by Contractor

Gri









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Company	United Egypt	ion Foundation	De	Designer Company						
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Contractor	Mahmoud Shawish		Da				Time			
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ER		M	C1	(7	C3	DD	ММ	YY	нн	MI

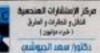
S1 to S21 CODE - 2 Station Reference CODE - 3	D1 to S3 Depot Reference Work Activity	Kp XXX Note For Kilometer point only Start Km is used
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INSPECTION REQUEST











Contractor Company	United Egypti	on Fo	undati	ion	Des	igner C	ompa	ny	SGA	c	0.0	
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Received by ER			V	MIR	C1	CZ	C3	DD	MM	YY	НН	MM
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Page 1 of 1



Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

Dear Gentleman,

Attached here with the Soil Replacement delivered on 09/08/2022

Materials test

1. Sieve analysis according to ASTM D-422.

2. Material finer than sieve No. 200 according to ASTM D-1140.

3. Liquid limits and plasticity index of soil according to ASTM D-4318.

4. Soil classification according to Project Specs.

5. Proctor test according to ASTM D-1557.

6. CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /....

در عبد دوسر : 2 شوع ۱۹۵۰ ۱۹۵۰ - کارت - شامع



Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

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Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	98.5
37.5	92.7
25	84.1
19	73.7
12.50	61.8
9.50	56.8
4.75	51.2
2.36	48.1
2.00	43.4
1.18	40.8
0.600	33.9
0.425	28.9
0.300	21.5
0.150	15.1

Signature /....

3 El Maick El Afdal Street Zamalek, Cairo.





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)
Delivery Date : 09/08/2022

Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

Materials finer than 75 μm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μM (No.200)	13.4

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3 El Malek El Afdal Street Zamalek, Cairo.

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Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

Delivery Date : 09/08/2022

Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

60

0

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	25.8
Plastic Limit	19.7
Plasticity Index	6.1







anpany Name : EGYPTIAN UNITED GROUP

eroject : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

0

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs			
Group Classification	(A-2-4)*	(A-1-a)	(A-1-b)	(A-2-4)*	
2.00 mm (No.10).	43.4	Max 50 %			
	28.9	Max 30 %	Max 50 %		
0.425 mm (No. 40). 0.075 mm (No. 200).	13.4	Max 15 %	Max 15 %	Max 15 %	
Characteristics of fraction pa	ssing 0,425 mm (N	(0.40)	111		
Liquid Limit	25.8				
Plasticity index	6.1	Max 6 %	Max 6 %	Max 10 %	

* Only allowed in lower embankment

The test results are (Comply - Not Comply) with specifications limits

Signature

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3 El Malek El Afdal Street Zamalek, Cairo.



CEL

Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

eroject : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

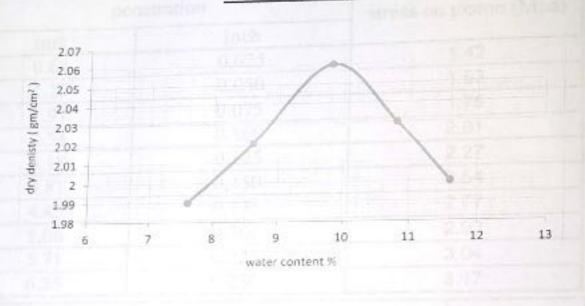
Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

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(1)

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557



Max dry density (gm/cm²) : 2.06

Optimum moisture content % : 9.8

مكتب معلى الاستشارات البنسية المعلجل الشمالي

Signature /

3 El Malek El Afdal Street Zamalek, Cairo, Tel.& Fax : 27367231 - 27363093



6



onipany Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh project

Type of sample : Soil Replacement (Embankment)

Location : St. (477+000)

Delivery Date : 09/08/2022 Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

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Test Results of California Bearing Ratio on Base Materials ASTM D 1883

stress on piston (Mpa	etration	pen
1.42	Inch	mm
	0.025	0.64
1.53	0.050	1.27
1.75	0.075	1.91
2.01	0.100	2.54
2.27	0.125	3.18
2.54	0.150	
2.77	0.175	3.81
2.92	0.200	4.45
3.04	0.225	5.08
3.17	0.250	5.71
	0.250	6.35

		40.00 00		
St	CBR %			
St. Value	Sample results	29.11		
6.90	2.01			
	St. Value	St. Yaluc		

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of 2.06 (gm/cm3)

at 9.8% optimum water content.

Signature

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Tel.& Fax: 27367231 - 27363093



٣ ش الملك الأفضل الزمالك - القاهرة تليفون + فاكس : ۲۷۳۱۷۲۳ - ۲۷۳۲۳۰۹۳ www.cel-egypt.com

Scanned with CamScanner

Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

spe of sample : Soil Replacement (Embankment)

Location : St. (477+000)

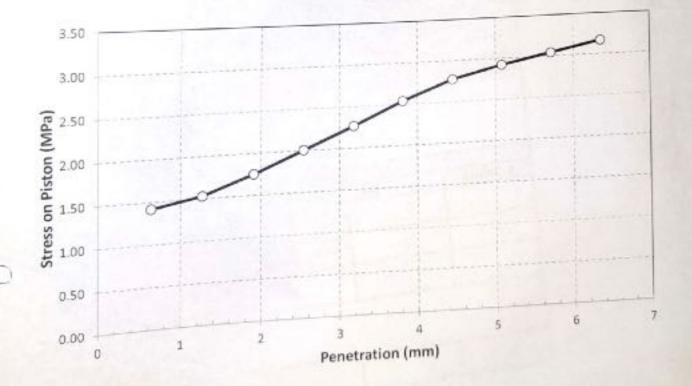
Delivery Date : 09/08/2022

Reporting Date : 15/08/2022

Reporting No. : 29 Sample No. : 26

No

Load Penetration Curve of CBR Test ASTM D-1883



Signature / B. Signature / Signature /

3 El Malek El Afdal Street Zamalek, Cairo. IAS

۴ ش العلك الأفضل الزمائك - القاهرة تليفون + هاكس : ۲۷۳۲۷۲۴۱ - ۲۷۳۲۳۰۹۳ www.cel-egypt.com

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Supp	lier Name													
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Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+700)
Delivery Date : 13/08/2022

Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

Dear Gentleman,

Attached here with the Soil Replacement delivered on 13/08/2022

Materials test

Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor test according to ASTM D-1557.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /...

Lun-anti-Sunanenens;



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+700)

Delivery Date : 13/08/2022 Reporting Date : 19/08/2022

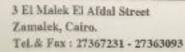
Reporting No. : 30 Sample No. : 27

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %		
50	100		
37.5	91.4		
25	83.4		
19	70.6		
12.50	61.3		
9.50	50.8		
4.75	43.5		
2.36	40.8		
2.00	38.1		
1.18	34.9		
0.600	26.8		
0.425	23.3		
0.300	18.9		
CEL 0.150	13.8		

Signature /...

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Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+700)

Delivery Date : 13/08/2022 Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

(T)

Materials finer than 75 μm (no.200) sieve by washing ASTM D-1140.

Linear Tamic Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	9.3



3



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+700)

Delivery Date : 13/08/2022

Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

0

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	26.7
Plastic Limit	18.6
Plasticity Index	8.1

Signature /.....

3 El Malek El Afdal Street Zamalek, Cairo.





: EGYPTIAN UNITED GROUP

apany Name : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

project type of sample : Soil Replacement (Embankment)

Location : St. (476+700)

Delivery Date : 13/08/2022

Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs						
Group Classification	(A-2-4)*	(A-1-a)	(A-1-b)	(A-2-4)*				
	38.1	Max 50 %						
2.00 mm (No.10).	23.3	Max 30 %	Max 50 %					
0.425 mm (No. 40). 0.075 mm (No. 200).	9.3	Max 15 %	Max 15 %	Max 15 %				
Characteristics of fraction pa	ssing 0.425 mm (N	(o.40)						
Liquid Limit	26.7							
Plasticity index	8.1	Max 6 %	Max 6 %	Max 10 %				

^{*} Only allowed in lower embankment

The test results are (

Comply - □ Not Comply) with specifications limits

3 El Malek El Aldal Street

Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093



٣ ش الملك الأفضل الزمالك - القاهرة تليفون + فاكس : ١٧٢٢١ www.cei-egypt.com



: EGYPTIAN UNITED GROUP pany Name

oject

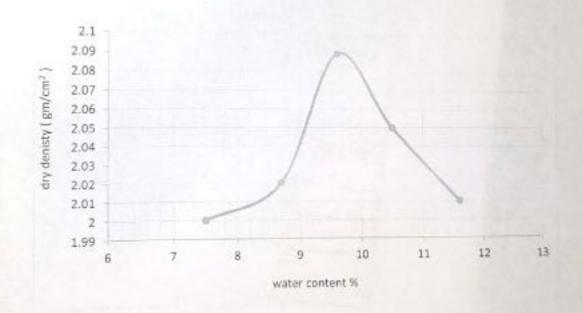
: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment) type of sample

Location : St. (476+700)

Delivery Date : 13/08/2022 Reporting Date : 19/08/2022

Reporting No. : 30 Sample No. : 27

Moisture - Density relation of soil Test result (Modified proctor test) ASTM D-1557



Max dry density (gm/cm2) : 2.09

Optimum moisture content % : 9.6

Signatur

3 El Malek El Afdal Street

Zamalek, Cairo.













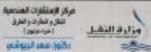
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CODE	-				6	Work Ac									
						an element	ACUME	'	_						
Descr	iption of t	Materials				Fill n	nater	ial r	esu	lts					
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MAR	Approval	No							1	Date	-				
Suppl	ier Name									OUT B		-			
Test R	Requiremo	ent				Specifica	tion		-	Clause	8	-			
Refer	ence Phot	os	Yes attache	d/No	Other					16891264			-	-	-
tem	Descript	ion			Unit		Quan	titu	Arri	ol Da	P.O.	Bla			-
1	LL & P.L	& O.M.C	%	m3			5000	city	Pull	Arrival Date		No	ле		-
2	Proctor				m3		5000								_
3	Classifica	ation			m3		5000					-			
1	Seive an	alysis			m3		5000			_		_	_		
omn	nents by:	12			-	Con	nment	s hur				-			
0	(CEL)	en taken for lab and th ind accepte	rm fill materia e results foun d	ided mee	et the										
)rgan	isation	Name		A	-	VAL STAT	rus								
		amalet t		Sign			_		Date				A-AW	C-R	
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ARB'	••	Eng	/ Mostafa Ne	egm			un								
omm	ent by ER						-								
mplo tepre:	sentative														

fi

MATERIAL INSPECTION REQUEST











Contractor Company			Foundation Design			Designer Company			SGAC		
Issued by	Name	Sign 15		Date				Time			
Contractor	Mahmoud Shawlesh	1		27	7.9	. 2	.72				
Received by ER		0	MIR	CI	(2	C3	DD	мм	YY	нн	MM
CODE-1	S1 to S21 Station Reference		D1 to S Depot Refer	ence		Fo	r Kilome	Kp X	OX Note		s used
CODE - 3		5	ub Element of								
Description of M	faterials		Fill	materi	al resu	lts					

Desci	ription of Materials			- 1	fill material	results	
Locat	ion to be Used	1-From station47 2-From station47 3-From station47 4-From station47 5-From station47	76+300 t 76+080 t 76+000 t	to statio to statio to statio	n 476+540 n 476+200 n 476+080	(-3) (-2.5)	
MAR	Approval No					Date	
Suppl	ier Name						
Test R	lequirement			Specifica	ition	Clause	
Refere	ence Photos	Yes attached / No		Other			
Item	Description		Unit		Quantity	And all D	T and the same of
1	CBR		m3		10000	Arrival Date	Note
Comm	ents by:			Cor	nments by:		
to	ole has been taken (CEL) lab and contions and acce	form fill material by SG the results founded me pted	et the				
)rgani	sation Name		APPRO	VAL STAT	US		
ontra	and the same of the same of	Kamel Shehab		'ant	2	Date	A-AWC-R
A/QC		Lanal		+	2/		
ARB*		ing/ Mostafa Negrn	17	1	14		
omme	ent by ER						
mplay	ers entative						

File: MIR - 10000 m3

Page 1 of 1



Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)

Delivery Date : 21/09/2022

Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

Dear Gentleman,

Attached here with the Soil Replacement delivered on 21/09/2022

Materials test

- Sieve analysis according to ASTM D-422.
- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor test according to ASTM D-1557.
- 6. CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

السالم الاستشارات الونسسية Signa ure / السالم الا والشطالي / Signa ure / المسالم الا والشطالي / در مسال المسالم الا والمسالم المسالم المس

3 El Malek El Afdal Street Zamulek, Cairo.





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)
Delivery Date : 21/09/2022
Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	88.9
25	79.1
19	72.7
12.50	66.3
9.50	58.4
4.75	38.7
2.36	37.2
2.00	35.8
1.18	31.1
0.600	29.4
0.425	28.5
0.300	23.5
0.150	17.1

Signature /.

معلى الاستثنار الدينيية الهنسية الم

ئم مسجل فنرس: 337 - 240 - 240 - 240 نبر الرئيس : 3 شارع المالة الاطناء - 21 ما

2

3 El Malek El Afdal Street Zamalek, Cairo.





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)
Delivery Date : 21/09/2022

Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

1

Materials finer than 75 μm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	11.6

ماتب معلى الورتشر بداده المسية المالية المسيد المس

3





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)
Delivery Date : 21/09/2022
Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

1

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

Signature / المعلمة التوانسية المعلمة التوانسية التوانس

3 El Malek El Afdal Street Zamalek, Cairo.





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)

Delivery Date : 21/09/2022

Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

Rec

scar

dfi

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs			
Group Classification	A-1-a	(A-1-a)	(A-1-b)		
2.00 mm (No.10).	35.8	Max 50 %			
0.425 mm (No. 40).	28.5	Max 30 %	Max 50 %		
0.075 mm (No. 200).	11.6	Max 15 %	Max 15 %		
Characteristics of fraction passing 0.4	25 mm (No.40 NP)			
lasticity index	NP	Max 6 %	Max 6 %		

The test results are (Comply - Not Comply) with specifications limits

Signature

السمالهال الشيطاني رم صبيل مدرس: 137 - 240 - 240 صريز دريس : 3 شع الت الأفان - الراك

1

3 El Malek El Afdal Street Zamalek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

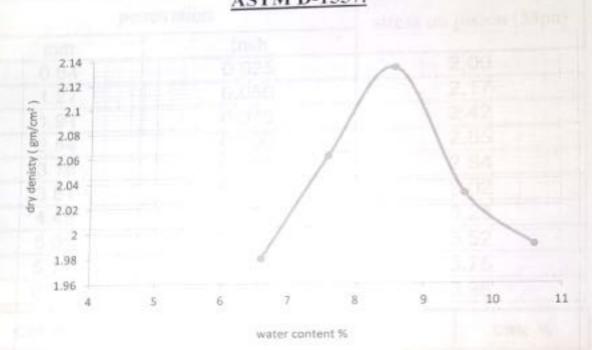
Location : St. (476+640)

Delivery Date : 21/09/2022

Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557.



Max dry density (gm/cm²) : 2.13

• Optimum moisture content % : 8.6

Signature

مكتب معلى الاستشارات الكندسوة البجائيل الكشاك دام دسيد دنيس 127 - 100 -

-

_ CEL

Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+640)

Delivery Date : 21/09/2022

Reporting Date : 27/09/2022

Reporting No. : 51 Sample No. : 20

Test Results of California Bearing Ratio on Base Materials ASTM D 1883

pe	netration	stress on piston (Mpa)
mm	Inch	suces on piston (wpa)
0.64	0.025	2.00
1.27	0.050	2.17
1.91	0.075	2.42
2.54	0.100	2.55
3.18	0.125	2.84
3.81	0.150	3.02
4.45	0.175	3.25
5.08	0.200	3.52
5.71	0.225	3.75
6.35	0.250	3.98

CBR Result	Si	tress (Mpa)	CBR %
At 0.1 inch (2.54 mm)	St. Value	Sample results	
penetration	6.90	2.55	36.9

Notes:

Oi

Attached graph shows penetration resistance versus penetration magnitude.

The sample was compacted to dry density of 2.13 (gm/cm³) at 8.6 % optiming system content.

3- Surcharge loaded to Kighan

3 El Malek El Afdal Street Zamalek, Cairo,



: EGYPTIAN UNITED GROUP impany Name project

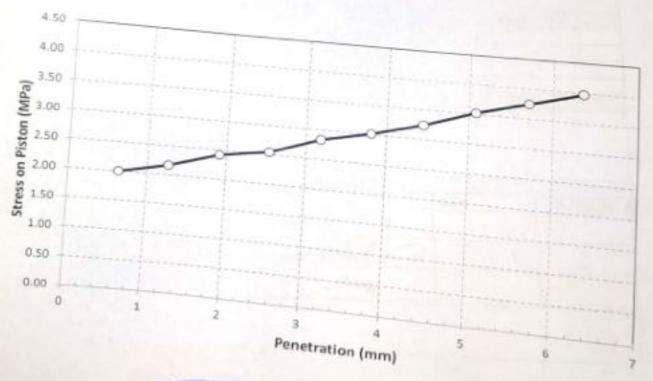
: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample : Soil Replacement (Embankment) Location

: St. (476+640)

Delivery Date : 21/09/2022 Reporting Date : 27/09/2022 Reporting No.

: 51 Sample No. : 20

Load Penetration Curve of CBR Test ASTM D-1883



Signature













Contractor Company	United Egypti	ion Fo	ındatio	n	Desi	gner C	ompa	ny	SGA	C		
Issued by	Name	Sign	100	,	Date				Time			
Contractor	Mahmoud Shawish				17	10	.70	22				
Received by ER				MIR	CL	a	а	DD	MM	YY	HH	ММ
				61	_				-			

C00E-1	S1 to S21 Station Reference	D1 to 53 Depot Reference	Kp XXX Nate For Kilometer point only Start Km is used
CODE-2		Work Activity	The residence of the second se
CODE -3		Sub Element of Activity	

Descri	ption of Ma	aterials			-	ill material	res	ults		
Locati	on to be Us	sed	1-From station475 2-From station476				57.50			
MAR	Approval N	0						Date		
Suppl	ier Name									
Test F	Requiremen	it			Spe	ecification	ij	Clause		
Refer	ence Photo	5	Yes attached / No	1	Oth	ner				
Item	Description	n	- VIII-	Un	t	Quantity	A	rrival Date	Note	
1	LL& P.L 8	0.M.C				5000			-	
2	2 Proctor			m3		5000				
3	Classificat			m3		5000				
4	Seive ana	lysis		m3		5000				
Comr	ments by:	30011				Comments by	y:			
to		ab and ti	orm fill material by SG he results founded me ed							
				-		STATUS				
Organ	nisation	Name		Si	gn			Date		A-AWC-R
Contr	ractor		Kamel Shehab	1	an	1 >				
QA/O	C *	1	Lamel	1		120				
GARE	**	En	g/ Mostafa Negm		,	tuy				
Comn	nent by ER									.87
100000000000000000000000000000000000000	oyers esentative									

File: MIR - 5000 m3

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Page 1 of 1

ATERIAL الفریدات الفوق و الشاول INSPECTION REQUEST Designer Company Contractor **SGAC** United Egyption Foundation Company Time Date Name Issued by Contractor Mahmoud Shawlesh Received by MIR ER Kp XXX Rote D1 to 53 CODE-1 51 to 521 Depot Reference For Kilometer point only Start Kim is used Station Reference Work Activity **Sub Element of Activity** CODE-1 Fill material results Description of Materials 1-From station475+900 to station 476+000 (-2) 2-From station476+000 to station 476+080 (-2) 3-From station476+200 to station 476+320 (-2.5) Location to be Used 3-From station476+900 to station 476+000 (-1.75) 4-From station475+740 to station 476+880 (-5) 5-From station476+540 to station 476+660 (-4 MAR Approval No Date Supplier Name Test Requirement Specification Clause Reference Photos Yes attached / No Other Item Description Unit Quantity Arrival Date CBR m3 10000 Comments by:

Asample has been taken form fill material by SGAC office to (CEL) lab and the results founded meet the specificontions and accepted

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Kamel Shehab	Kan >		
QA/QC*	Hamel	121		
GAR8**	Eng/ Mostafa Negm	Cy		
Comment by ER				
Employers Representative				

APPROVAL STATUS

Comments by:

File: MIR - 10000 m3

15/



: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : EGYPTIAN UNITED GROUP Company Name

Project

: Soil Replacement (Embankment) Type of sample

: St. (475+540) Location : 11/10/2022 Delivery Date

: 17/10/2022 Reporting Date

: 53 Reporting No. : 22 Sample No.

Dear Gentleman,

Attached here with the Soil Replacement delivered on 11/10/2022

Materials test

- Sieve analysis according to ASTM D-422.
- Material finer than sieve No. 200 according to ASTM D-1140.
- Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor test according to ASTM D-1557.
- CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /

3 El Malek El Afdul Street Zamalek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (475+540)
Delivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %	
50	100	
37.5	92.8	
25	81.9	
19	76.8	
12.50	72.1	
9.50	64.6	
4.75	43.8	
2.36	41.2	
2.00	40.8	
1.18	37.6	
0.600	33.2	
0.425	31.7	
0.300	24.4	
0.150	19.1	

مقتب معلىل الإستشارات الهلامية

Signature / January 1937

3 El Malek El Afdal Street Zamalek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (475+540)

Delivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

Materials finer than 75 μm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	12.9

Signature /

مئتب معلى الاستشرات الهنسوة

تر تنسيدل فشريبي: 427 - 401 - 210 - 210 مريخ الزاميس : 2 شفوع شاك الاختال - الأملاك - المقاعرة

3

3 El Malek El Afdal Street Zamalek, Cairo.



Annial Cities in

Consulting Engineering Bureau & Laboratories مكتب معامل الاستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

Project

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample

: Soil Replacement (Embankment) Location : St. (475+540)

Delivery Date : 11/10/2022 Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

Signature



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (475+540)

Delivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	2012m-0	ccording is Specs	
Group Classification	A-1-b	(A-1-a)	(A-1-b)	
2.00 mm (No.10).	40.8	Max 50 %		
0.425 mm (No. 40).	31.7	Max 30 %	Max 50 %	
0.075 mm (No. 200).	12.9	Max 15 %	Max 15 %	
Characteristics of fraction passing 0.4	25 mm (No.40))		
Liquid Limit	NP	10	2	
Plasticity index	NP	Max 6 %	Max 6 %	

The test results are (Comply - Dot Comply) with specifications limits

معتب معامل الإستشارات الهلاسية السياحل الشمالي

Signature

IAS



Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

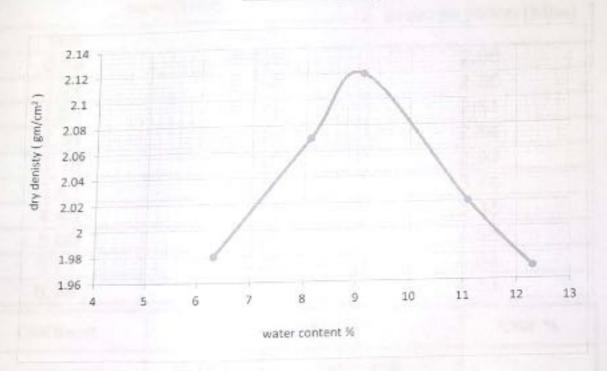
Location : St. (475+540)

Delivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

Moisture – Density relation of soil Test result (Modified proctor test) ASTM D-1557.



Max dry density (gm/cm²) : 2.12

Optimum moisture content % : 9.1

مكتب معامل الاستشارات الونعسوة السماحل الشمالي

Signature /

داد مسجد هندست: 257- 100-100 وقد عندس : 3 همار معصور المعادد

3 El Malek El Afdal Street Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093



6



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (475+540)

Delivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

Test Results of California Bearing Ratio on Base Materials ASTM D 1883

per	netration	stress on piston (Mpa)
mm	Inch	suces on piston (wipa)
0.64	0.025	2.08
1.27	0.050	2.30
1.91	0.075	2.51
2.54	0.100	2.84
3.18	0.125	2.96
3.81	0.150	3.14
4.45	0.175	3.38
5.08	0.200	3.58
5.71	0.225	3.83
6.35	0.250	4.13

CBR Result	St	CBR %	
At 0.1 inch (2.54 mm)	St. Value	Sample results	
penetration	6.90	2.84	41.1

tes:

1- Attached graph shows penetration resistance versus penetration magnitude.

 The sample was compacted to dry density of 2.12 (gm/cm³) at 9.1% optimum system content.

3- Sarcharge load 4.50 Kg

nature

م صدر مدرس: 377 - 200 - 219 مرود و219 مرود تروس : 3 مدع ويله المسلم ويوسية

-7

Il Malek El Afdal Street malek, Cairo.

& Fax: 27367231 - 27363093





Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

spe of sample : Soil Replacement (Embankment)

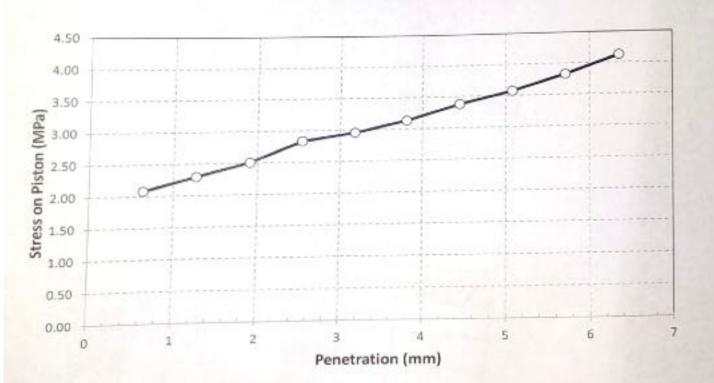
St. (475+540)

pelivery Date : 11/10/2022

Reporting Date : 17/10/2022

Reporting No. : 53 Sample No. : 22

Load Penetration Curve of CBR Test ASTM D-1883



8

3 El Malek El Afdal Street Zamalek, Cairo.



-MATERIAL INSPECTION REQUEST





مرکز الاستشارات المنصور تنظر و شارت و شرق (شرب بیلین) (گالوا) دهند الجنوشنان





Contractor Company	United Egypt	ion Fo	undatio	on	Desi	igner (Compa	any	SGA	C		
Issued by	Name	Sign	10	-	Date				Time			
Contractor	Mahmoud Shawish		K		6.	11.	2.	22				
Received by ER				MIR	C1	Q	CI	DD	ММ	YY	нн	ММ

COBE-1	51 to 521 Station Reference	D1 to 53 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2		Work Activity	
CODE - 3		Sub Element of Activity	

De	scription of Materials		Fill material results				
Loca	ation to be Used	1-From station4 2-From station4 3-From station4	76+640) to sta	tion 476+740	(-4)	
MAF	R Approval No					Date	
Supp	olier Name						
Test	Requirement			Speci	fication	Clause	
Refer	rence Photos	Yes attached / No		Other			
tem	Description		Unit	t	Quantity	Arrival Date	Note
	LL& P.L & O.M.C %		m3		5000		
	Proctor		m3		5000	Al II	
	Classification		m3		5000		
	Seive analysis		m3		5000		

Comments by: Comments by:

Asample has been taken form fill material by SGAC office o (CEL) lab and the results founded meet the pecificontions and accepted

		APPROVAL STATUS		
rganisation	Name	Sign	Date	A-AWC-R
ontractor	Kamel Shehab	Kam -		
A/QC *	Ramel	Ang	0	1 19
RB**	Eng/ Mostafa Negm	1 Ciny		
mment by ER				
ployers resentative				

fiR - 5000 m3

Page 1 of 1



Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

: Soil Replacement (Embankment) Type of sample

: St. (476+000) Location

: 01/11/2022 **Delivery Date** : 06/11/2022 Reporting Date

: 54 Reporting No. : 23 Sample No.

Dear Gentleman,

Attached here with the Soil Replacement delivered on 01/11/2022

Materials test

1. Sieve analysis according to ASTM D-422.

Material finer than sieve No. 200 according to ASTM D-1140.

- Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor test according to ASTM D-1557.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

> CEL مكتب معامل الاستثمارات الهندسية المساحل الشسالي

Signature

3 El Mulek El Afdal Street Zamalek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+000)
Delivery Date : 01/11/2022

Reporting Date : 06/11/2022

Reporting No. : 54 Sample No. : 23

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
	100
37.5	96.6
25	83.7
19	70.6
12.50	62.9
9.50	59.1
4.75	40
2.36	38.2
2.00	37.3
1.18	33.7
0.600	30.9
0.425	29.1
0,300	25.8
0.150	19.3

Signature /

معتب معضل الاستشرات الهنسسية المسلطى الشيمالي رغ صور فعريف 1994 - 1994 عليه رضور تدييس : 5 فوج الملك الإثنان - الواكل - طلك

3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax: 27367231 - 27363093





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+000)

Delivery Date : 01/11/2022

Reporting Date : 06/11/2022

Reporting No. : 54 Sample No. : 23

Materials finer than 75 μm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	11.8

معتب معلى الإستشرات الهنسية المعتبر معلى المعتبر المع

3



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+000)

Delivery Date : 01/11/2022

Reporting Date : 06/11/2022

Reporting No. : 54 Sample No. : 23

Results of liquid limit and plasticity index of soils according to ASTM D-4318

	The second secon	
Test	Results (%)	À
Liquid Limit	NP	
Plastic Limit	NP	41
Plasticity Index	NP	

معتب معامل الإسطاعيات الهندسية المساهل الشوائي ... / Dature ... معامل المساهل الشوائي / 375-350 معامل معامل المساهل الم

Malek El Afdal Street alek, Cairo.

k Fax: 27367231 - 27363093



4

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Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+000)

Delivery Date : 01/11/2022 Reporting Date : 06/11/2022

Reporting No. : 54 Sample No. : 23

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)		ts Specs
Group Classification	A-1-a	(A-1-a)	(A-1-b)
2.00 mm (No.10).	37.3	Max 50 %	
0.425 mm (No. 40).	29.1	Max 30 %	Max 50 %
0.075 mm (No. 200).	11.8	Max 15 %	Max 15 %

Characteristics of fraction passing 0.425 mm (No.40)

Liquid Limit	NP	PHENNE	
Plasticity index	NP	Max 6 %	Max 6 %

The test results are (∠ Comply - □ Not Comply) with specifications limits

مكتب معلىل الاستشارات الونعيد السماحل الشمالي

A 40 - 601 - 937 : 400 - 918

nature /

Malek El Afdal Street

miek, Cairo. & Fax : 27367231 - 27363093



۳ ش الملك الأفضل الزمالك - القاهرة تليفون + فاكس ، ۲۷۳۹۷۲۳۱ - ۲۷۳۹۲۲۳۱ تليفون + فاكس ، ۳ww.cel-egypt.com



: EGYPTIAN UNITED GROUP any Name

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

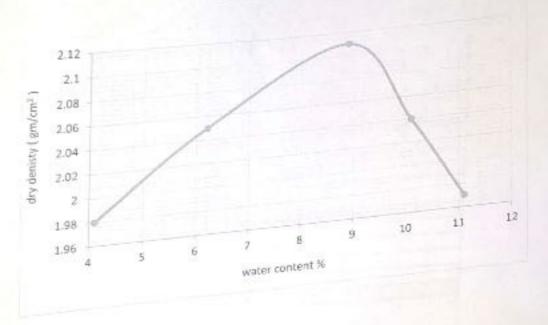
of sample : Soil Replacement (Embankment)

: St. (476+000) ocation

pelivery Date : 01/11/2022 geporting Date : 06/11/2022

Reporting No. : 54 Sample No. : 23

Moisture - Density relation of soil Test result (Modified proctor test) ASTM D-1557



: 2.11 Max dry density (gm/cm2)

: 8.9 Optimum moisture content %

Signature

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ي فن البلك الأفضل الزمالك - القاهرة تَلْيِفُونُ + فَاكْسُ : ٢٦٧٢٣١ www.cel-egypt.com













Contractor Company	United Egyption Foundation		on	Designer Company				SGAC			
Issued by	Name	Sign	-	Date				Time			
Contractor	Mahmoud Shawish	8	- In-	6	11.	20	1)				
Received by ER			MIR	CI	E2	C3	00	NAM.	YY	НН	MM

CODE 1	S1 to S21 Station Reference	D1 to 53 Depet Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2		Work Activity	
CODE -3		Sub Element of Activity	

Desc	ription of Material	S		Fill	material	results			
Local	ion to be Used			1 476+860 (- 1 476+540 (-					
MAR	AR Approval No					Dat	e		
Suppl									
Test F	Fest Requirement			Specific	ation	Cla	use		
Refer	ference Photos Yes attached / No			Other					
Item	Description		Unit		Quantity	Arrival	Date	Note	
1	LL & P.L & O.M.	%	m3		5000				
2	Proctor		m3		5000				
3	Classification	ification			5000				
4	Seive analysis		m3		5000				
Comm	ents by:		Comments by:						
to					VILLE				
Oceani	sation Name		-	ALSIA	105	10	ate		A-AWC-R
Organi			Sign			-	late		A-MIVL-N
Contra	ctor	Kamel Shehab	1 k	land		>			
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SARB*	• Eng	g/ Mostafa Negm	(www						
omme	nt by ER								
mploy	ers		1						

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Page 1 of 1

MATERIAL INSPECTION REQUEST









Contractor Company	United Egypti	Designer Company				SGAC					
Issued by	Name	Sign K	-	Date	e			Time			
Contractor	Mahmoud Shawlesh	D		6	11.	20	-7				
Received by ER			CI REZ		C3	C3 00		AA.	HH	MM	
CODE-1	51 to 521 Station Reference		D1 to 5 Depot Refer	Pro port		Fo	Kilome	Kp X ter point	XX Nate Lanly St		is used
CODE-2		Work Activ					-00140	1000			
CODE - 3	Sub Element of Activ										

CODE - 3				Sub Eleme	nt of Activity		
Description	of Materials	1			Fill material	results	
Location to I	be Used	1-From station4 2-From station4 3-From station4 4-From station4 5-From station4	76+640 t 76+000 t 76+740 t	o statio o statio o statio	n 476+740 n 476+100 n 476+860	(-4) (-1.75) (-4.5)	
MAR Approv	al No				Date		
Supplier Nan	ne						
Test Require	est Requirement			Specifica	stion	Clause	
Reference Ph	otos	Yes attached / No	-	Other			
Item Descr	Description		Unit		Quantity	Arrival Date	Note
1 CBR			m3		10000		
Comments by				Con	nments by:		
o (CEL)	been taken for lab and the s and accepte	rm fill material by SG results founded me d	AC office et the				
			APPROV	AL STAT	US		
Organisation	Name		Sign	VI TILLIAN TO		Date	A-AWC-R
ontractor	K	amel Shehab	Ka	M	No o		
A/QC*	1	Land	1	1	9		
ARB**	Eng/	Mostafa Negm	1	/	Wy .		
omment by EF							
nployers							

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Page 1 of 1



Consulting Engineering But مكتب معامل الإستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

Type of sample : Soil Replacement (Embankment)

: 06/11/2022

Location : St. (476+300) Delivery Date : 01/11/2022 Reporting Date

Reporting No. : 55 Sample No. : 24

Dear Gentleman,

Attached here with the Soil Replacement delivered on 01/11/2022

Materials test

1. Sieve analysis according to ASTM D-422.

- Material finer than sieve No. 200 according to ASTM D-1140.
- Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- Proctor test according to ASTM D-1557.
- CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /

مكتب معضل الاستشارات الهلد

والراس : و غاوم صله العدن - الرحه - عالم



Company Name : EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Project : Soil Replacement (Embankment) Type of sample

: St. (476+300) Location

: 01/11/2022 Delivery Date : 06/11/2022 Reporting Date

Reporting No. : 55 : 24 Sample No.

Results of Sieve Analysis According to ASTM D-422.

Sieve Size	Passing %
(mm)	100
50	88.2
37.5	81.7
25	72.7
19	
12.50	65.3
9,50	61.1
	41.6
4.75	41.2
2.36	38.8
2.00	36.5
1.18	32.9
0.600	
0.425	30.2
0.300	24.1
0.150	17.6

Signature

On

3 El Malek El Afdal Street Zamelek, Cairo. Tel.& Fax: 27367231 - 27363093





Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

: Soil Replacement (Embankment) Type of sample

: St. (476+300) Location

: 01/11/2022 **Delivery Date** : 06/11/2022 Reporting Date

: 55 Reporting No. : 24 Sample No.

Materials finer than 75 μm (no.200) sieve by washing ASTM D-1140.

	Regular
Test	Results (%)
	44
Percentage of material finer than Sieve Size 75 μΜ (No.200)	12.3

Signature

iont



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+300)

Delivery Date : 01/11/2022 Reporting Date : 06/11/2022

Reporting No. : 55 Sample No. : 24

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Chadliferine Test	1.10	Results (%)				
Liquid Limit	30.1	NP	Almy!			
Plastic Limit	162.0	NP				
Plasticity Index	2 425 Inn () 50.50	NP				

Signature معلن الإسلام المسلمالي الشيمالي الشيمالي الشيمالي الشيمالي الشيمالي الشيمالي الشيمالي المسلمالي المسلمالي

3 El Malek El Afdal Street Zamalek, Cairo.





: EGYPTIAN UNITED GROUP Company Name

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

: Soil Replacement (Embankment) Type of sample

: St. (476+300) Location

Delivery Date : 01/11/2022 : 06/11/2022 Reporting Date

Reporting No. : 55 : 24 Sample No.

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs				
Group Classification	A-1-b	(A-1-a)	(A-1-b)			
2.00 mm (No.10).	38.1	Max 50 %	*****			
0.425 mm (No. 40).	30.2	Max 30 %	Max 50 %			
0.075 mm (No. 200).	12.3	Max 15 % Max 15				
Characteristics of fraction passing 0.4	125 mm (No.40))				
Liquid Limit	NP					
Plasticity index	NP	Max 6 %	Max 6 %			

The test results are (Comply - Not Comply) with specifications limits CEL

Signature /

الساحل الشمال

مكتب معامل الاستضارات الهلدم

3 El Malek El Afdal Street Zamalck, Cairo.





ompany Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

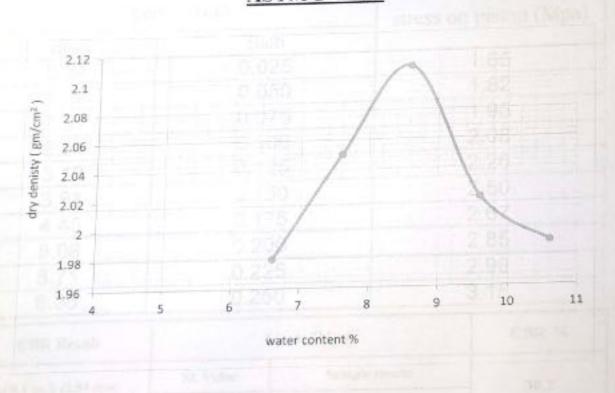
Type of sample : Soil Replacement (Embankment)

Location : St. (476+300)

Delivery Date : 01/11/2022 Reporting Date : 06/11/2022

Reporting No. : 55 Sample No. : 24

Moisture – Density relation of soil
Test result (Modified proctor test)
ASTM D-1557.



Max dry density (gm/cm²) ; 2.11

• Optimum moisture content % : 8.6

Signature

معنى معلى الاستشعرات البندسية السماحل الشمالين دام عسماد المدين المالية المالية المالية المراد المدين المالية المالية

CEL

6

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مكتب معامل الإستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment) Location

: St. (476+300) **Delivery Date** : 01/11/2022

Reporting Date : 06/11/2022

Reporting No. : 55 Sample No. : 24

Test Results of California Bearing Ratio on Base Materials **ASTM D 1883**

pen	etration	stress on piston (Mpa)
mm	Inch	Shess on piston (si-pa)
0.64	0.025	1.65
1.27	0.050	1.82
1.91	0.075	1.95
2.54	0.100	2.08
3.18	0.125	2.26
3.81	0.150	2.50
4.45	0.175	2.67
5.08	0.200	2.85
5.71	0.225	2.98
6.35	0.250	3.15

CBR Result	St	Stress (Mpa)			
At 0.1 inch (2.54 mm)	St. Value	Sample results	20.2		
penetration	6.90	2.08	30.2		

tes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was Compacted to dry density of 2.11 (gm/cm³) at 8.6 % optimum water content.

3- Surcharge load 4.50

gnature

El Malek El Afdal Street Zamalek, Cairo.





: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : EGYPTIAN UNITED GROUP Company Name

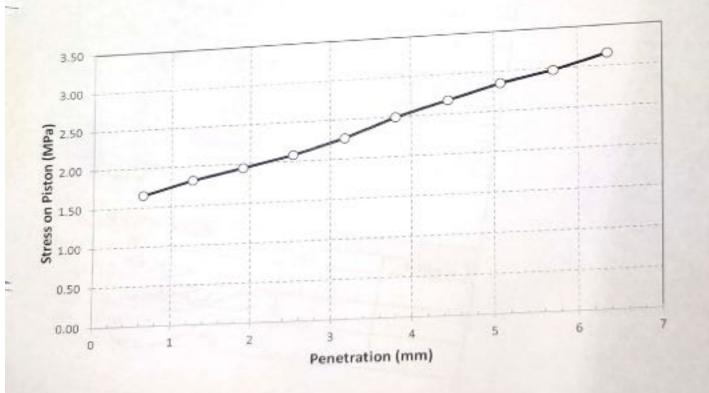
Project

: Soil Replacement (Embankment) Type of sample

: St. (476+300) Location : 01/11/2022 Delivery Date : 06/11/2022 Reporting Date

: 55 Reporting No. : 24 Sample No.

Load Penetration Curve of CBR Test ASTM D-1883



Signature



MATERIAL INSPECTION











Contractor Company	United Egypt	United Egyption Foundation		Des	igner (ompa	any	SGAC				
Issued by Contractor	Name	Sign MS		Date			Time					
	Mahmoud Shawish	1		23.11.22		111111			-			
Received by		-0		Cl	(2	(3)	00	MM	77	100		
ER			MIR			250	11111111			НН	1/11/0	
CODE-1									_			

CODE-1 S1 to 521	D1 to S3	
CODE = 2 Station Reference	Depot Reference	Enr Kilomete
CODE-3	Work Activity	For Kilometer point only Start Km is used
Picture Con-	Sub Element of Activity	The state of the s

Des	scription of Materia	ls	Fill material results						
Loca	ation to be Used	1-From station4 2-From station4	177+840 to	o station o station	478+000 (477+100 (-4) -5)			
MAF	R Approval No								
Supp	olier Name				_	Date			
Test	Requirement		5	Specifica	tion	Clause			
Reference Photos		Yes attached / N		CONTRACTOR		Ciause			
Item	Description	· Courtagned / N	277	Other					
1	LL&PL&O.M.C	0/	Unit		Quantity	Arrival Date	Note		
2	Proctor	76	m3		5000		14040		
3	Classification		m3		5000 5000				
4	Seive analysis		m3						
Comm	ents by:		m3		5000 ments by:				
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Page 1 of 1

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Page 1 of 1

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Consulting Engineering I مكتب معامل الإستشارات الهندسية

Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

Type of sample : Soil Replacement (Embankment)

Location : St. (476+980) **Delivery Date** : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

Dear Gentleman,

Attached here with the Soil Replacement delivered on 17/11/2022

Materials test

1. Sieve analysis according to ASTM D-422.

2. Material finer than sieve No. 200 according to ASTM D-1140.

3. Liquid limits and plasticity index of soil according to ASTM D-4318.

4. Soil classification according to Project Specs.

Proctor test according to ASTM D-1557.

CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

مكاتب معامل الإستشارات المله

Signature /

3 El Malek El Afdal Street Zamaiek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

: Soil Replacement (Embankment) Type of sample

: St. (476+980) Location : 17/11/2022 **Delivery Date** : 23/11/2022 Reporting Date

Reporting No. : 57 : 26 Sample No.

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	95.1
25	86.3
19	76.2
12.50	71.4
9.50	63.2
4.75	45.8
2.36	43.3
2.00	39.7
1.18	34.1
0.600	32.5
0.425	31.2
0.300	25.1
0.150	18.4

Signature

CEL مكتب معشل الإستشغرات الهذ

الله و المراج الله الافتال - الاسلام - الاسلام - الله

3 El Malek El Afdal Street Zamalek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+980)

Delivery Date : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

> Materials finer than 75 μm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μM (No.200)	12.4

Signature/.

مكتب معلى الاستهاري المناسط المساحل المشعالي داره مد ودرس ۱۵۷ - ۱۵۹ - ۱۵۹ شود ودرس : ۵ شوع شده الاشن - الاردي - المار

CHEL

-



Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+980)

Delivery Date : 17/11/2022

Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

Results of liquid limit and plasticity index of soils according to ASTM D-4318

		11888	
Test	A-1-0	Results (%)	(10)
Liquid Limit	31.2	NP	Min
Plastic Limit	114	NP	Mai
Plasticity Index	THE RELEASE	NP	1

Signature

مكتب معلىل الاستشارات الهندسية السماحل الزئيموالي

در صدر فنرس ۱۳۱۹ - ۱۳۹۹ ۱۳۱۹ سرد دراس : ۱۵ فارع شده اواسات - ازراد - عندار

3 El Maick El Afdal Street Zamalek, Cairo. Tel.& Fax: 27367231 - 27363093

IAS ACCREDITED



Consulting Engineering Bureau & Laboratories

مكتب معامل الإستشارات الهندسية Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample : Soil Replacement (Embankment)

Location

: St. (476+980) **Delivery Date** : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs		
Group Classification	А-1-ь	(A-1-a)	(A-1-b)	
2.00 mm (No.10).	39.7	Max 50 %		
0.425 mm (No. 40).	31.2	Max 30 %	Max 50 %	
0.075 mm (No. 200).	12.4	Max 15 %	Max 15 %	
Characteristics of fraction passing 0.4	125 mm (No.40))		
Liquid Limit	NP	*****	Pennsy	
Plasticity index	NP	Max 6 %	Max 6 %	

The test results are (a Comply | Not Comply) with specifications limits مكتب سعشال الإنستشارات

Signature

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Tel.& Fax: 27367231 - 27363093



٣ ش العلك الأفضل الزمالك - القاهرة تليفون - فاكس ، ۲۲۲۲۲۲۱ - ۲۲۲۲۰۹۲ www.cel-egypt.com



مكتب معامل الإستشارات الهندسية

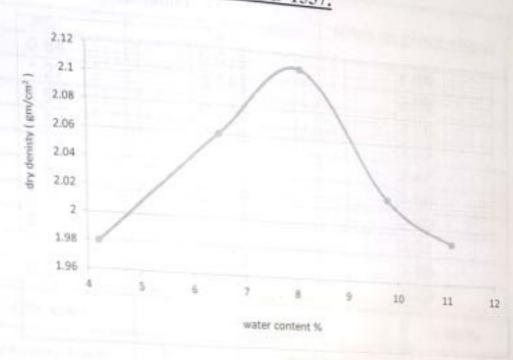
Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample Location

: St. (476+980) **Delivery Date** : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

Moisture - Density relation of soil Test result (Modified proctor test) ASTM D-1557.



Max dry density (gm/cm²)

Optimum moisture content %

مكتب معشل الإستشغرات اله

Signature /

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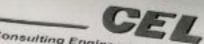
3 El Malek El Afdal Street

Zamulck, Cairo.

Tel.& Fax: 27367231 - 27363093



٢ ش الملك الأفضل الزمالك- القاهرة لليفون - فاكس د ۲۷۳۹۷۴۳ - ۲۲۳۲۳ www.cel-egypt.com



company Name : EGYPTIAN UNITED GROUP

project

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh type of sample

Location : St. (476+980) Delivery Date : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

Test Results of California Bearing Ratio on Base Materials ASTM D 1883

penetr	ration	
mm	Inch	stress on piston (Mpa)
0.64	0.025	1.00
1.27	0.050	1.89
1.91	0.075	2.08
2.54	0.100	2.18
3.18		2.35
	0.125	2.44
3.81	0.150	2.58
4.45	0.175	2.80
5.08	0.200	3.01
5.71	0.225	3.18
6.35	0.250	3.29

CBR Result	St	CBR %			
At 0.1 inch (2.54 mm)	St. Value	Sample results			
penetration	6.90	2.35	34.1		

Notes:

Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of 2.11 (gm/cm3) at 8.1 % optimum of the content.

3- Surpharge load 4:50

Signature

3 El Malek El Afdal Street

Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093



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مكتب معامل الإستشارات الهندسية Company Name : EGYPTIAN UNITED GROUP

project

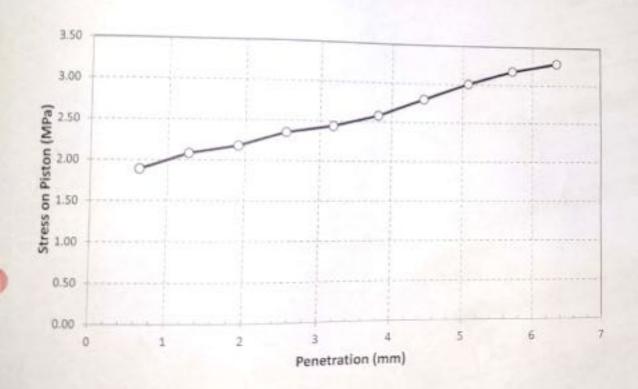
: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Type of sample

Location : St. (476+980)

Delivery Date : 17/11/2022 Reporting Date : 23/11/2022

Reporting No. : 57 Sample No. : 26

Load Penetration Curve of CBR Test ASTM D-1883



Signature

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٣ ش الملك الأفضل الزمالك - القاهرة لليفول + فاكس ، ٢٧٣٦٧٢٢١ - ٢٧٢٦٢٠٩٣ www.cel-egypt.com













Contractor Company	United Egyption Foundation					gner C	ompa	ny	SGAC				
Issued by	Name	Sign	110	,	Date				Time				
Contractor	Mahmoud Shawish	5			6	. 12	. 20	20					
Received by ER				MIR	C1	C	G	00	ММ	YY	ж	MM	

CODE-1	S1 to S21 Station Reference	D1 to 53 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2		Work Activity	
CODE-3		Sub Element of Activity	

Desc	Description of Materials					Fill material	re	sults		
Location to be Used 1-From station47 2-From station47										
MAR	Approval N	Vo.						Date		
Supp	lier Name									
Test	Requireme	nt			Spe	cification		Clause		
Refer	ence Photo	05	Yes attached / No		Oth	er		1 -1 -11		
item	Descripti	on		Uni	t	Quantity	A	vrival Date	Note	
1	LL&P.L		C %			5000	1		100000	
2	Proctor		-W1,C-20			5000	Т			
3	Classifica	tion		m3		5000	E			
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to specif	(CEL) I	ab and th		eet the		STATUS				
Organ	nisation	Name		Sig	n			Date		A-AWC-R
Contr	actor	k	amel Shehab	K	6m	17				
QA/Q	C *	1-	2 comed	4	/	tal/		>		
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File: M/R - 5000 m3

Page 1 of 1



Contractor











Designer Company



SGAC

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Company Name : EGYPTIAN UNITED GROUP

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

: Soil Replacement (Embankment) Type of sample

: St. (476+100) Location : 30/11/2022 **Delivery Date**

: 06/12/2022 Reporting Date

: 59 Reporting No. : 28 Sample No.

Dear Gentleman,

Attached here with the Soil Replacement delivered on 30/11/2022

Materials test

Sieve analysis according to ASTM D-422.

Material finer than sieve No. 200 according to ASTM D-1140.

3. Liquid limits and plasticity index of soil according to ASTM D-4318.

4. Soil classification according to Project Specs.

Proctor test according to ASTM D-1557.

CBR according to ASTM D-1883.

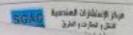
Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signatur

مكتب معامل الإستشاقرات الهلد

3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax: 27367231 - 27363093











Company Name : EGYPTIAN UNITED GROUP Project

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Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	
25	95.8
19	84.1
	74.1
12.50	65.2
9.50	57.1
4.75	48.2
2.36	45.5
2.00	
1.18	43.1
	38.2
0.600	34.3
0.425	31.6
0.300	27.5
0.150	19.1

Signature /

CEL مكتب معامل الاستشارات البال

Hundah Stepa

عدمل فنرسي: 837 - 834 - 100 - 100 مثلث ... الإسلام - 200 مثلث ... الإسلام - 200 مثلث ... الإسلام - 200 مثلث ...

3 El Malek El Afdal Street Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093



٢ شن العلك الأخضل الزمالك - القاهرة تليفون + فاكس : ۲۷۳۱۲۲۳۱ - ۲۲۳۲۲۳۳ www.cel-egypt.com



Company Name : EGYPTIAN UNITED GROUP

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Materials finer than 75 μm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Deventors of material finer than	
Percentage of material finer than Sieve Size 75 μM (No.200)	13.6

Signature /

السماحيل الشمالي دفروسيد النوس، 137 - 1919 و 192 عرف النوس ، 3 شرع الكام اللفار - الرح - النام

مان معلن الاستارات

Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+100) **Delivery Date** : 30/11/2022 Reporting Date : 06/12/2022

Reporting No. : 59 Sample No. : 28

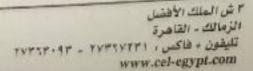
Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)		
Liquid Limit	NP		
Plastic Limit	NP		
Plasticity Index	NP		

معتب معلى المستطاعية Signature الساحل الشمالي يار كان مال الشريعي: 837 - 854 - 140 - 140 C ركز الرئيسي والأشارع البلك الالشار - فزولات - الالترة

3 El Malek El Afdai Street

Zamalek, Cairo.





Company Name : EGYPTIAN UNITED GROUP

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Type of sample : Soil Replacement (Embankment)

Location : St. (476+100)

Delivery Date : 30/11/2022 Reporting Date : 06/12/2022

Reporting No. : 59 Sample No. : 28

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
Group Classification	A-1-b	(A-1-a)	(A-1-b)
	43.1	Max 50 %	******
2.00 mm (No.10).	31.6	Max 30 %	Max 50 %
0.425 mm (No. 40). 0.075 mm (No. 200).	13.6	Max 15 %	Max 15 %
Characteristics of fraction passing 0.		0)	
Liquid Limit	NP		
Plasticity index	NP	Max 6 %	Max 6 %

The test results are (Comply - Not Comply) with specifications limits

Signature ... المنطقة المنطقة

3 El Malek El Afdal Street Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093



۲ ش الملك الأفضل الزمالك - القاهرة تليفون - فاكس : ۲۷۳۲۷۲۱ - ۲۷۳۲۲۰۹۳ www.cel-egypt.com



: EGYPTIAN UNITED GROUP Company Name

: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Project

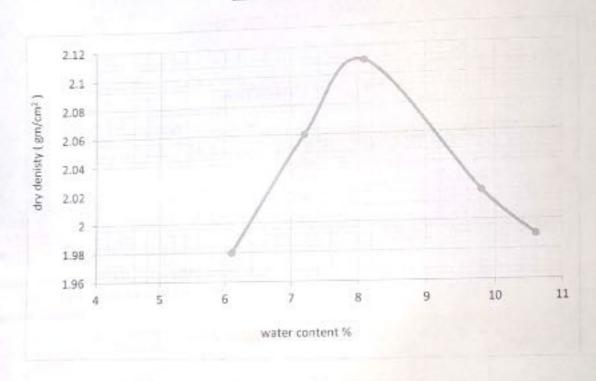
: Soil Replacement (Embankment) Type of sample

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Reporting Date : 06/12/2022

Reporting No. : 59 Sample No. : 28

Moisture - Density relation of soil Test result (Modified proctor test) ASTM D-1557.



Max dry density (gm/cm2) : 2.11

Optimum moisture content % : 8.1

Signature /

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