

MATERIAL INSPECTION REQUEST

الهيئة العامة
للمطرق والكباري والنقل البري
(GARBLT)



ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
أ.د. خالد قنديل

الهيئة القومية للإنفاق

NATIONAL AUTHORITY FOR TOLLWAYS



Contractor Company	ALARCAN 2			Designer Company							
Issued by Contractor	Name	Sign	Date	Time							
	Eng/Salman gamal		14/6/2023								
Contractor Reference	ARC-17										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							14	6	2023		

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		

Description of Materials		Fill Material Result			
Location to be Used	522+300	522+500	-0.25		
	522+300	522+500	0.00		
	522+000	522+210	-1.25		
	522+000	522+210	-1.00		
MAR Approval No	AR2-17		Date		
Supplier Name					
Test Requirement	Specification		Clause		
Reference Photos	Yes attached / No	Other			
Item	Description	Unit	Quantity	Arrival Date	Note
1	L.L & P.L & O.M.C %	m3	5000	12-6-2023	
2	Proctor	m3	5000	13-6-2023	
3	Classification	m3	5000	12-6-2023	
4	Sieve Analysis	m3	5000	12-6-2023	
5	C.B.R	m3	5000	14-6-2023	
Comments by:			Comments by:		
APPROVAL STATUS					
Organisation	Name	Sign	Date	A-AWC-R	
Contractor	Eng/ salman gamal				
QA/QC *	Ahmed hamed	Ahmedhamed			
GARB**					
Employers Representative					

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST



Location Name	Contractor Company		Designer Company																	
Electric express train	ALARCAN 2		k.k																	
Issued by Contractor	Name Eng/Salman gamal	Sign	Date 14/6/2023	Time																
Contractor Reference	AR2-17																			
Received by ER		MAR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>M</td> <td>YY</td> <td>HH</td> <td>M</td> </tr> <tr> <td></td> <td></td> <td></td> <td>14</td> <td>6</td> <td>2023</td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	M	YY	HH	M				14	6	2023			
C1	C2	C3	DD	M	YY	HH	M													
			14	6	2023															

The Following Test Result are Attached For Review				
Description of Materials	Soil (A-1-a)			
LOCATION OF STOCK	522+050			
Item	AR2-15	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	8.1 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	6.5%	
6	ASTM D 1557	Modified proctor	2.21%	
7	ASTM D 1883	CBR	47.2 %	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/salman gamal			
Contractor QA/QC *	Ahmed hamed	Ahmed hamed		
GARB**				
Employers Representative				

* Designer
** Alignment/Bridges: Culvert only

Operating Lab Negida Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

Description of Materials Embankment

Testing Date	12-06-23	code	Zone	From Station	TO Station
Location	K.P 522+050	ARC2-17			
Company Name	ALARCAN 2				

1-visual inspection test :-

2-Gradient test :-

A-gradation of bulk materials				SAMPLE WEIGHT (g)				19360.00	gm	table classify	
sieve size	2	1.5	1	3/4	1/2	3/8	# 4	PASS		soil classify	
Mass retained (g)	591.0	1691.0	3667.0	1816.0	1971.0	1022.0	2833.0			A-1-a	
Cumulative Retained (g)	591.0	1691.0	5358.0	7174.0	9145.0	10167.0	13000.0		PRO	2.135	
Cumulative Retained %	3.1	8.7	27.7	37.1	47.2	52.5	67.1		WC	6.2	
Cumulative Passing %	96.9	91.3	72.3	62.9	52.8	47.5	32.9		CBR	47.2%	
									corr.proctor	2.21%	
									corr.o.m.c	6.5%	

B-soft material gradation				WT.OF sample				500.00	gm
sieve size	10	40	200						
Cumulative Retained (g)	40.00	198.00	376.00						
Cumulative Retained %	8.00	39.60	75.20						
Cumulative Passing %	92.00	60.40	24.80						

C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	96.9	91.3	72.3	62.9	52.8	47.5	32.9	30.2	19.8	3.1

ATTERBERG LIMITS	LIQUID LIMIT (L.L)	PLASTIC LIMIT (P.L)	PLASTIC INDEX (P.I)
			N.P

Contractor

Consultant

شركة نجدة للمقاولات
المعمل المركزي
مشروع القطار السريع / فوكة - مطروح

Ahmed Hamed

 KX KAYAK SHAKER	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA TO MARSA MATROUH From Station 504+000 To Station 568+177	 وزارة النقل والاقتصاد (MOT)
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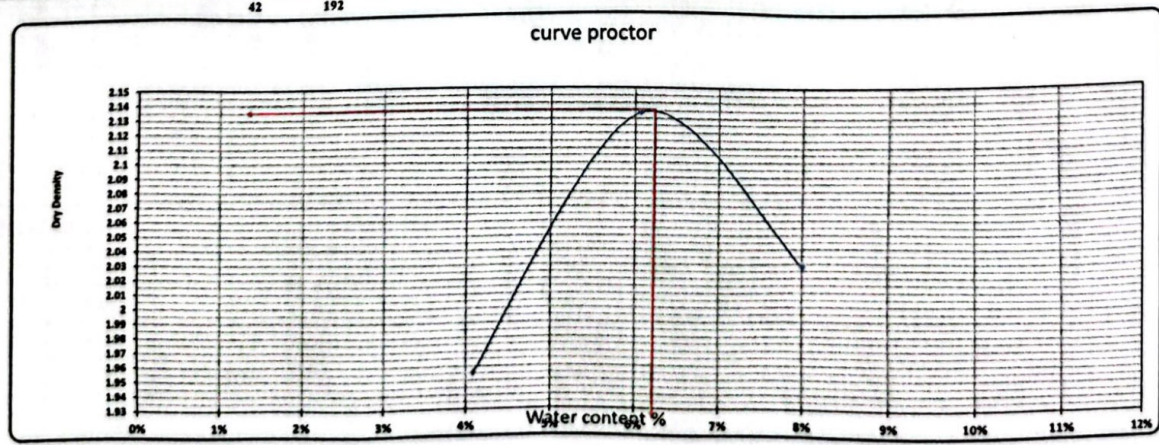
PROCTOR TEST

Testing Date	13-06-23	code		From Station	To Station
Location	K.P 522+050	ARC2-17	Zone	522+000	522+500
ALARCAN 2	ALARCAN 2				

Weight of empty mold	5652.0	MAX Dry Density	2.135
Mold Volume	2125.0	Water content %	6.2

trial no :	1	2	3		
Wt. Of Mold+ wet soil	9977.0	10462.0	10306.0		
WT. WET SOIL	4325.0	4810.0	4654.0		
Wt. Density	2.035	2.264	2.190		

Tare No.	8	6	7	4	5	6			
Tare wt.	36.26	38.82	35.99	36.28	35.35	35.8			
Wt. Of wet soil & tare	160.0	160.0	160.0	160.0	160.0	160.0			
Wt. Of dry soil & tare	155.23	155.15	152.89	152.93	150.90	150.66			
Wt. Of water	4.8	4.8	7.1	7.1	9.1	9.3			
Wt. Of dry soil	119.0	116.3	116.9	116.7	115.6	114.9			
Water content %	4.01%	4.17%	6.08%	6.06%	7.88%	8.13%			
AV. Water content %	4.09%		6.07%		8.00%				
Dry Density	1.955		2.134		2.028				



Contractor

Consultant

شركة نهجينة للمقاولات
 المعمل المركزي
 مشروع القطار السريع / فوكة - مطروح

Ahmed Hamed

California Bearing Ratio TEST

Testing Date	14-6-2023	code	ARC2-17	From Station	522+000	To station	522+500
Location	K.P 522+050	Zone					
Company Name	ALARCAN 2						

Test Results:

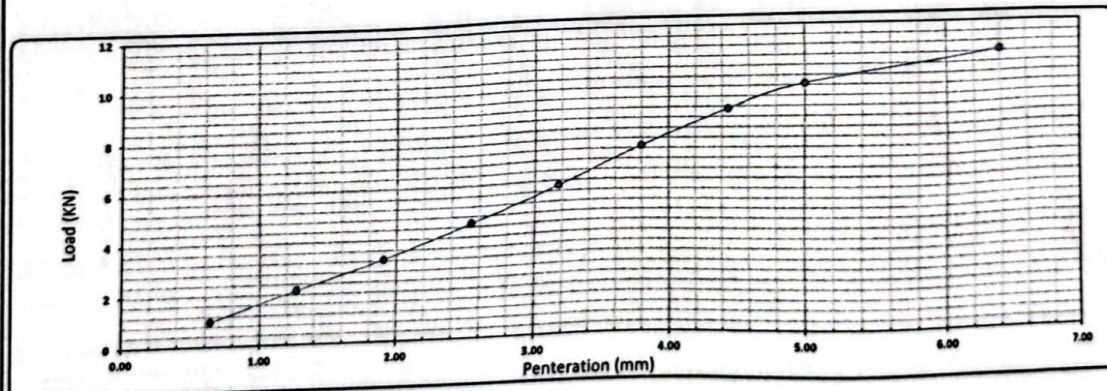
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm ³)	2170
Mold WT. (gm)	7700
Mold WT. + Wet WT. (gm)	12650
Wet WT. (gm)	4950
Wet Density (g/cm ³)	2.281
Dry Density (g/cm ³)	2.145
Proctor Density (g/cm ³)	2.135
Compaction %	100

Moisture Ratio After Compacted Mold	
Tare No.	5
Tare WT. (gm)	35.35
Tare WT. + Wet WT. (gm)	183.98
Tare WT. + Dry WT. (gm)	175.1
Water WT. (gm)	8.9
Dry WT. (gm)	139.8
Moisture Content %	6.35

Swelling	
Mold No.	1
Date	14-6-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0.00
Sample Height (mm)	116.40
Swelling Ratio %	0%

Loading Reading :

Pentration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	101	221	333	463	593	746	890	988	1111
Load (KN)	1.0	2.2	3.3	4.5	5.8	7.3	8.7	9.7	10.9



Calculations :-

Pentration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	معدل نسبة 98
2.50	4.54	13.4	34.0%	100	98	33.2%
5.00	9.68	20.0	48.4%			47.2%

Lab. Specialist
Name :
Sign :

Lab. Engineer
Name :
Sign :
شركة نجيدة للمشاوالات
المعمل المركزي
مشروع القطار السريع / فوكة - مطروح

Consultant Engineer
Name : Ahmed Hamed
Sign : Ahmed Hamed

California Bearing Ratio TEST

Testing Date :	09-06-2023	Code	FROM STA :	522+000	522+250
Location :	K.P (522+250)	ARC 2 (16)			
Company Name	AL Arkan 2				

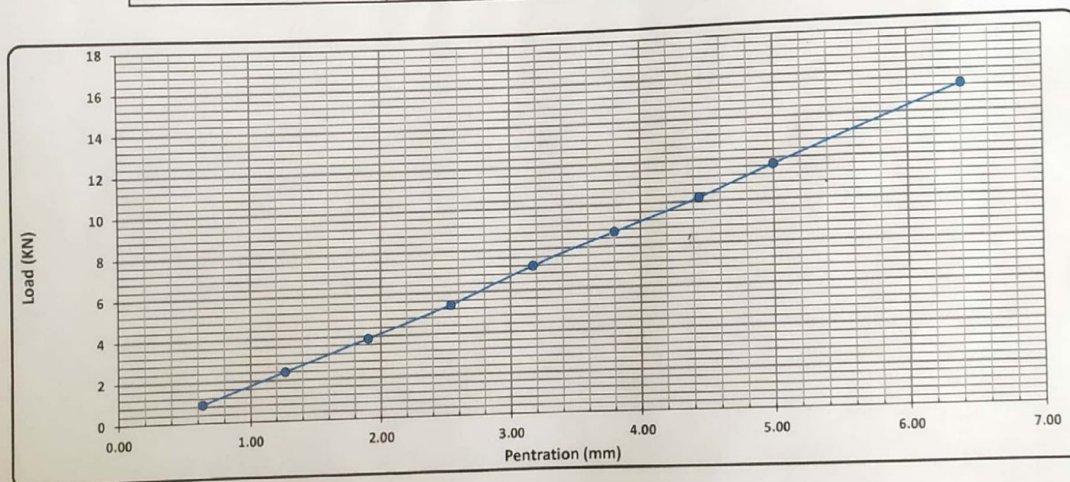
- : Test Results

Compaction % for Mold	
Mold No.	1
Mold Vol. (cm ³)	2205
Mold WT. (gm)	5034
Mold WT. + Wet WT. (gm)	10063
Wet WT. (gm)	5029
Wet Density (g/cm ³)	2.281
Dry Density (g/cm ³)	2.129
Proctor Density (g/cm ³)	2.175
Compaction %	97.9

Mositure Ratio After Compacted Mold	
Tare No.	7
Tare WT. (gm)	41.5
Tare WT. +Wet WT. (gm)	150
Tare WT. +Dry WT. (gm)	142.8
Wt. Water	7.2
Dry WT. (gm)	101.3
Moisture Content %	7.1

Swelling	
Mold No.	1
Date	09-06-2023
Intial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	120.00
Swelling Ratio %	0.0%

Pentration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (mm)	0.03	0.08	0.13	0.18	0.24	0.29	0.34	0.39	0.51
Load (KN)	0.9	2.4	3.9	5.4	7.2	8.7	10.2	11.7	15.3



Calculations :-

Pentration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% على نسبة ٩٨
2.50	5.40	13.4	40.4%	98	98	40.5%
5.00	11.70	20.0	58.4%			58.5%

Lab. Specialist

Name :

Sign :

Lab Engineer

Name :

Sign :

Consultant Engineer

Name :

Sign :

 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. خالد فنديل	 SVSCTA SHAKER	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA To MARSА MATROUH From Station 504+000 To Station 568+177		 الهيئة القومية للإتقان مجلس البحث العلمي مجلس البحث العلمي
		Dgreeting Lab AL Nuby Central Lab		
		PARTICLE SIZE DISTRIBUTION OF SOIL		

TESTING DATE:	5-6-2023	Code	zone	522+000	522+250
LOCATION	K.P (522+250)	ARC 2 (16)			
NAME COMPANY	AL Arkan 2				

1-visual inspection test

2-Gradient test

Gradation of bulk materials				SAMPLE WEIGHT [g]		22254.00		gm	table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	soil classify	
Mass retained (g)	0.0	1928.0	2300.0	2700.0	1694.0	1800.0	1200.0		A-1-a	
Cumulative Retained (g)	0.0	1928.0	4228.0	6928.0	8622.0	10422.0	11622.0		PRO	2.175
Cumulative Retained %	0.0	8.7	19.0	31.1	38.7	46.8	52.2		WC	7.50
Cumulative Passing %	100.0	91.3	81.0	68.9	61.3	53.2	47.8		CBR	58.50

B-soil material gradation				WT. OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	72.00	200.00	350.00					
Cumulative Retained %	14.40	40.00	70.00					
Cumulative Passing %	85.60	60.00	30.00					

C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	91.3	81.0	68.9	61.3	53.2	47.8	40.9	28.7	14.3

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	N.P	N.P	N.P

Contractor

 المهندس محمد عبد الحليم
 قطاع الطرق
 1435 هـ

Consultant
 Ahmed hamed

**MATERIAL
APPROVAL
REQUEST**



المكتب الاستشاري الهندسي
(GARBLT)



الهيئة القومية للإزفاق
National Authority for Railways



Contractor Company	AL-Arkan for general contracting			Designer Company							
Issued by Contractor	Name	Sign	Date	Time							
	Eng/ Salman Gamal										
Contractor Reference	ARC2-16										
Received by ER			MAR	C1	C2	C3	DD	MM	YY	HH	MM
							09	06	2023		
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										

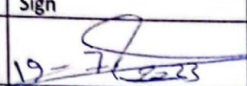
Description of Materials		Soil (A-1-A)		
Location to be stock		522+100		
Item	Specificatin	Test requirement	Test result attachment	Remarks
1	ASTM D75	Aggregate sampling	According to SPCS	
2	ASTM C136	Sieve Analysis	According to SPCS	
3	ASTM D1440	Passing sieve #200	14.3	
4	ASTM D4318	Atterberg limit	NP	
5	ASTM 2974	Moisture content	7.50	
6	ASTM D1557	Modified Proctor	2.175	
7	ASTM D1883	CBR	58.50	
Comments by:		Comments by:		
APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/Salman Gamal			
QA/QC *				
GARB**				
Employers Representative				

Contractor Company	AL-Arkan for general contracting			Designer Company							
Issued by Contractor	Name	Sign	Date	Time							
	Eng/ Salman Gamal										
Contractor Reference	ARC2-16										
Received by ER			MIR	C1	C2	C3	DD	MM	YY	HH	MM
							09	06	2023		

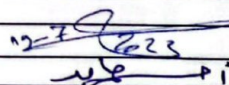
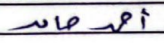
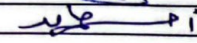
CODE - 1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials		REPLACEMENT FILL MATERIAL RESULTS			
Location to be Used		522+000 to 522+220	(-1.75)		
		522+000 to 522+220	(-1.50)		
		522+300 to 522+500	(-0.50)		
		522+000 to 522+100	(-0.25)		
MAR Approval No				Date	
Supplier Name				Clause	
Test Requirement		Specification			
Reference Photos	Yes attached / No	Other			
Item	Description	Unit	Quantity	Arrival Date	Note
1	Seive Analysis	M^3	5000	05/06/2023	
2	Atterberg Limits	M^3	5000	05/06/2023	
3	Proctor	M^3	5000	05/06/2023	
4	CBR	M^3	5000	09/06/2023	
Comments by:			Comments by:		
A sample has been taken from fill material by KK Office to (AL-Nuby Central Lab) and the results founded meet the specifications accepted					
APPROVAL STATUS					
Organisation	Name	Sign	Date	A-AWC-R	
Contractor	Eng/ Salman Gamal				
QA/QC *	Ahmed hamed	Ahmed hamed			
GARB**					
Employers Representative					

MATERIAL INSPECTION REQUEST				
	الهيئة العامة للمطرق والكباري والسكك الحديدية (GARBLT) المكتب الاستشاري الهندسي أ.د. خالد فتحي الهيئة القومية للإنفاق NATIONAL AUTHORITY FOR TUNNELS (NAT) شركة سكك حديد مصر Electric Express Train SVSTRA SHAKER			

Contractor Company	ALARCAN 2		Designer Company																	
Issued by Contractor	Name	Sign	Date	Time																
	Eng/SLAMAN GAMAL		19-07-2023																	
Contractor Reference	P.S.G.1 ARC 2(P-1)																			
Received by ER		MIR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>M</td> <td>YY</td> <td>HH</td> <td>M</td> </tr> <tr> <td></td> <td></td> <td></td> <td>19</td> <td>07</td> <td>2023</td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	M	YY	HH	M				19	07	2023			
C1	C2	C3	DD	M	YY	HH	M													
			19	07	2023															

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		

Description of Materials		Curshed Stone P.S.G.1 Material Result				
Location to be Used		522+000 TO 522+500 0.25+ 522+000 TO 522+500 0.50+				
MAR Approval No		P.S.G.1 ARC 2(P-1)			Date	
Supplier Name						
Test Requirement		Specification			Clause	
Reference Photos		Yes attached / No			Other	
Item	Description	Unit	Quantity	Arrival Date	Note	
1	LL & P.L & O.M.C %	m3	5000	17-07-2023		
2	Proctor	m3	5000	18-07-2023		
3	Classification	m3	5000	17-07-2023		
4	Sieve Analysis	m3	5000	17-07-2023		
5	C.B.R	m3	5000	19-07-2023		
6	L.A	m3	5000	18-07-2023		
7	SP.Gravity	m3	5000	18-07-2023		
8	Absorbtion	m3	5000	18-07-2023		
Comments by:			Comments by:			
APPROVAL STATUS						
Organisation	Name	Sign	Date	A-AWC-R		
Contractor	Eng/ Shehab Hamdi					
QA/QC *						
GARB**						
Employers Representative						

* Designer

** Alignment / Bridges: Culvert Only

File: MIR P.S.G.1 YN3(P-1)

Page 1 of 1

MATERIAL APPROVAL REQUEST					
	الهيئة العامة للطرق والمواصلات (GARBIT)	ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ. د. خالد فهد	الهيئة القومية للأنفاق NATIONAL AUTHORITY FOR TUNNELS (NAT)	SYSTRA	SHAKER

Location Name	Contractor Company		Designer Company																	
Electric express train	ALARCAN 2		k.k																	
Issued by Contractor	Name	Sign	Date	Time																
	Eng/SALMAN GAMAL		19-07-2023																	
Contractor Reference	P.S.G.1 ARC2(P-1)																			
Received by ER																				
		MAR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>M</td> <td>YY</td> <td>HH</td> <td>M</td> </tr> <tr> <td></td> <td></td> <td></td> <td>19</td> <td>07</td> <td>2023</td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	M	YY	HH	M				19	07	2023			
C1	C2	C3	DD	M	YY	HH	M													
			19	07	2023															

The Following Test Result are Attached For Review				
Description of Materials	P.S.G.1 (A-1-a)			
Location Of Stock	522+140			
Item	Specification	Test requirement	Test result attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to specifications	
2	ASTM C 136	Sieve Analysis	According to specifications	
3	ASTM D 1440	Passing Sieve, No 200	5.2 %	
4	ASTM D 4318	Atterberg limit	N.P	
5	ASTM D 2974	Moisture content	7.90 %	
6	ASTM D 1557	Modified proctor	2.194	
7	ASTM D 1883	CBR	88.8 %	
8	AASHTO-T96	LA	24 %	
9	AASHTO-T85	Absorbtion	2.908 %	
10	AASHTO-T85	SP.Gravity	2.652	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/Shehab Hamdi			
Contractor QA/QC *				
GARB**				
Employers Representative				

* Designer
 ** Alignment/Bridges: Culvert only

 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي اد فوكا لمطرواح	 SYSTER & SHAKER	Electric Express Train - HSR From El Ain El Sekhna City To El Alamein - MATROUH Section - 7 From FOKA To MARSA MATROUH From Station 504+000 To Station 568+177	 الهيئة العامة للنقل وزارة النقل (GARBL)
Operating Lab	Negida Central Lab		

PARTICLE SIZE DISTRIBUTION OF PREPARED SUBGRADE

TESTING DATE:	17-07-2023	Code	Zone	FROM STATION	TO STATION
LOCATION	KP 522+140	ARC 2(P-1)		522+000	522+500
COMPANY NAME	ALARCAN 2				
MATERIALS	Prepared Subgrade				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials			SAMPLE WEIGHT [g]				31220.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a	
Mass retained (g)	0.0	1234.0	4817.0	2909.0	4920.0	2740.0	5838.0		PRO	2.194	
Cumulative Retained (g)	0.0	1234.0	6051.0	8960.0	13880.0	16620.0	22458.0		WC	7.90	
Cumulative Retained %	0.0	4.0	19.4	28.7	44.5	53.2	71.9		CBR	88.83%	
Cumulative Passing %	100.0	96.0	80.6	71.3	55.5	46.8	28.1		Los Angles	24	
									Absorption	2.908	

B-soft material gradation			WT.OF sample		500.00	gm
sieve size	10	40	200			
Cumulative Retained (g)	147.00	322.00	408.00			
Cumulative Retained %	29.40	64.40	81.60			
Cumulative Passing %	70.60	35.60	18.40			

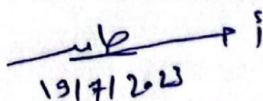
C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	96.0	80.6	71.3	55.5	46.8	28.1	19.8	10.0	5.2
SPECIFICATION	—	97	—	70 — 75	—	15 — 60	—	0 — 35	—	0 — 12

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	—	—	N.P

Contractor


 Mohamed Hamed
 المهندس
 مشروع القطار السريع - فوكا - مطروح

Consultant


 19/7/2023

 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ. د. خالد نصير	 SHARAF	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA TO MARSA MATROUH From Station 504+000 To Station 568+177	 الهيئة العامة للتخطيط والتطوير الاقتصادي (GASB)

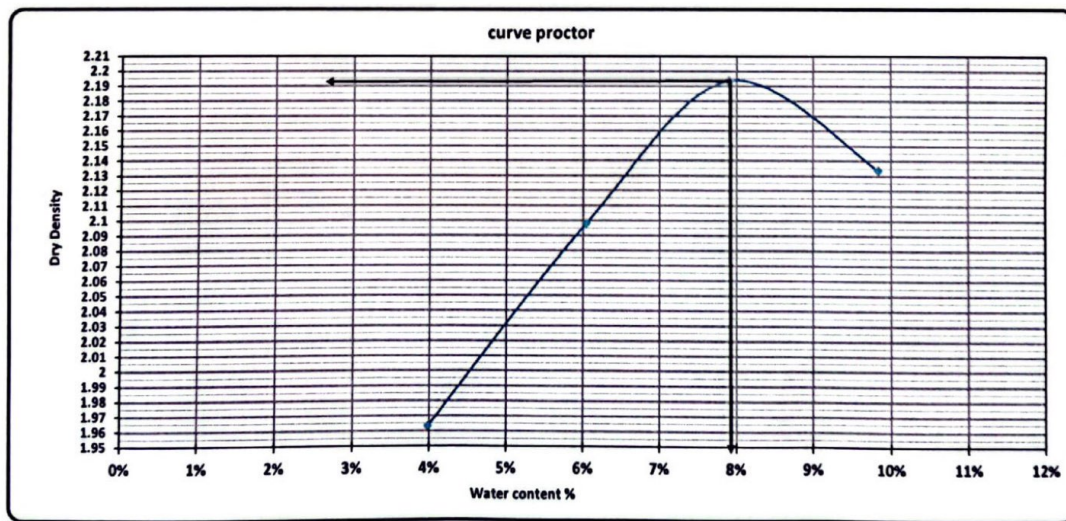
PROCTOR TEST (PREPARED SUBGRADE)

TESTING DATE:	18-7-2023	Code	zone	FROM	TO
LOCATION	522+140	ARC 2(P-1)		522+000	522+500
COMPANY NAME	ALARCAN 2				

Weight of empty mold :	5652.0	MAX Dry Density	2.194
Mold Volume:	2125.0	Water content %	7.9

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	9990.0	10380.0	10682.0	10633	
WT. WET SOIL	4338.0	4728.0	5030.0	4981.0	
Wt. Density	2.041	2.225	2.367	2.344	

Tare No.	7	19	13	17	15	40	31	32		
Tare wt.	42.2	44.1	53.6	53.2	30.9	46.2	80.7	82.7		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	145.20	145.00	142.63	142.50	140.20	140.35	138.00	137.80		
Wt. Of water	4.8	5.0	7.4	7.5	9.8	9.7	12.0	12.2		
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.0		
Water content %	3.9%	4.1%	6.0%	6.1%	8.0%	7.8%	9.8%	9.9%		
AV. Water content %	4.0%	6.0%	7.9%	9.8%						
Dry Density	1.963	2.098	2.194	2.134						



Contractor

Mohamed Hamed
المهندس محمد هادي
مشروع القطار السريع - فوكا - مرسى مطروح
19/7/2023

Consultant

طه
19/7/2023

**Absorbion & Aggregate specific gravity
AASHTO-T85**

PREPARED SUBGRADE

TESTING DATE:	18-7-2023	code	zone	FROM	TO
LOCATION	522+140	ARC 2(P-1)		522+000	522+500
COMPANY NAME	ALARCAN 2				

Weight of sample Before Test	—	gm
Weight of saturated -dry surface sample (B)	3008	gm
Weight of saturated sample in water (C)	1821	gm
Weight of dry sample after heating (A)	2923	gm

10695

Results:-

Bulk specific gravity = $A / (B-C)$	2.463	
Apparent specific gravity = $A / (A-C)$	2.652	
Absorbion = $(B-A)/A$	2.908	%

Los Anglos abrasion AASHTO-T96

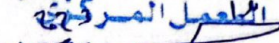
Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3785	24

Lab. Specialist

Name: 
Sign: 
19/7/2023

Lab. Engineer

Name: 
Sign: 
مشروع القطر السريع في كنفه مطروح

Consultant Engineer

Name:
Sign:

 	Electric Express Train - HSR	 
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Operating Lab	AL Nuby Central Lab
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California Bearing Ratio TEST

Testing Date : 19-07-2023		Code	ZONE	FROM	TO
Location : 522+140		ARC 2(P-1)		522+000	522+500
COMPANY NAME : ALARCAN 2					

Test Results

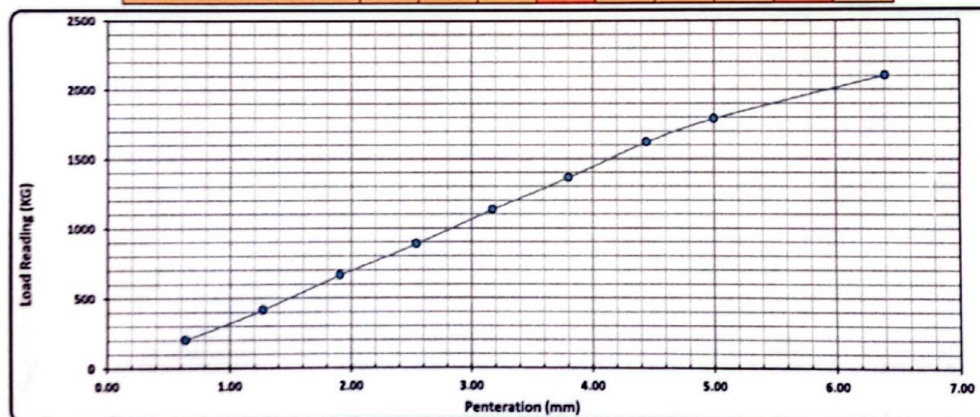
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm ³)	2170
Mold WT. (gm)	7700
Mold WT. + Wet WT. (gm)	12646
Wet WT. (gm)	4966
Wet Density (g/cm ³)	2.288
Dry Density (g/cm ³)	2.120
Proctor Density (g/cm ³)	2.194
Compaction %	97

Moisture Ratio After Compacted Mold	
Tare No.	19
Tare WT. (gm)	44.1
Tare WT. + Wet WT. (gm)	188.62
Tare WT. + Dry WT. (gm)	178
Water WT. (gm)	10.6
Dry WT. (gm)	133.9
Moisture Content %	7.9

Swelling	
Mold No.	1
Date	19-07-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	116.40
Swelling Ratio %	0.0%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (KG)	204.0	416.0	665.0	888.0	1135.0	1365.0	1621.0	1790.0	2103.0
Load Reading (KN)	2.0	4.1	6.5	8.7	11.1	13.4	15.9	17.5	20.6



Calculations :-

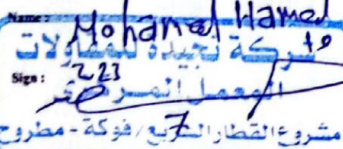
Penetration (mm)	Load (Kg)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % عند نسبة 98
2.50	8.70	13.4	65.2%	97	98	66.1%
5.00	17.54	20.8	87.6%			88.8%

Lab. Specialist

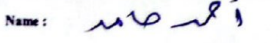
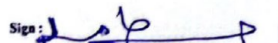
Name :

Sign :

Lab. Engineer

Name: Mohamed Hamel
 Sign: 
 مشروع القطار السريع / شوكة - مضروخ

Consultant Engineer

Name: 
 Sign: 
 19/7/2023