



Director General



Controller General



Director General



Director

Compressive Strength For Stone Sample

Testing date	8/5/2023
Company Name	Negmat EL Khayat 2
Location	857+008 To 857+140

Sample No.	Station	Weight (gm)	Volume (Cm ³)	Density (gm/cm ³)	Average Density (gm/cm ³)	Load (KN)	Strength (N/m ²)	Average Strength (N/m ²)
1	857+008 To 857+140	806	(7.3*7.3)	2.33	2.30	245	487.50	516.3
2		847	(7.3*7.3)	2.43		246	488.20	
3		838	(7.3*7.3)	2.41		330	511.2	

Lab. Engineer
Name: *[Signature]*
Sign: *[Signature]*

Consultant Engineer
Name: *[Signature]*
Sign: *[Signature]*

MATERIAL INSPECTION REQUEST



Contractor Company	NEGMAA AL-KHALEEG CO.		Designer Company																	
Issued by Contractor	Name Eng/ Abdelrahman Aboelyared	Sign abdelrahman Aboelyared	Date	Time																
Contractor Reference	NKH2-1	Prepared Sub grade																		
Received by ER			MIR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>C4</td> <td>M</td> <td>TT</td> <td>MM</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	C4	M	TT	MM	MM								
C1	C2	C3	C4	M	TT	MM	MM													

CODE - 1	11 to 521	01 to 53	By XXX Note
CODE - 2	Station Reference	Depot Reference	For Kilometer point only Start Km is used
CODE - 3	Work Activity		
	Sub Element of Activity		

Description of Materials	REPLACEMENT FILL MATERIAL RESULTS				
Location to be Used	557+300 To 557+500 (Subgrade 1) 557+300 To 557+500 (Subgrade 2) 557+000 To 557+140 (Subgrade 1) 557+000 To 557+140 (Subgrade 2) 557+140 To 557+300 (Subgrade 1) 557+140 To 557+300 (Subgrade 2)				
MAR Approval No.		Date			
Supplier Name					
Test Requirement		Specification	Clause		
Reference Photos	Yes attached / No	Other			
Item	Description	Unit	Quantity	Arrival Date	Note
1	Sieve Analysis	M³	5000	10/05/2023	
2	Atterberg Limits	M³	5000	10/05/2023	
3	Proctor	M³	5000	11/05/2023	
4	CBR	M³	5000	13/05/2023	
5	Los Anglos	M³	5000	11/02/2023	
Comments by:		Comments by:			
A Sample has been taken from fill material by KK office to (GOMAA BADR LAB) and the result founded meet the specifications accepted		نتائج التحاليل والاختبارات مطابقة لكميات تملأ حوالي 5000 متر			
APPROVAL STATUS					
Organisation	Name	Sign	Date	A-AWC-R	
Contractor	abdelrahman	abdelrahman			
QA/QC*	Ahmed Abotaid				
GARB**					
Employers Representative					

MATERIAL APPROVAL REQUEST



Contractor Company	NEGMAA AL-KHALEEG CO.		Designer Company	
Issued by Contractor	Name	Sign	Date	Time
	Eng/ Abdelrahman Aboelyated	abdelrahman elsay ed	13-5-2023	
Contractor Reference	NKH2-1	Prepared Sub grade		
Received by ER			MAR	

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 Test Materials		Soil (A-1-a)		
Location of Test		K.P (558+000)		
Item	Specification	Test Requirement	Test Result Attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to Specification	
2	ASTM C 136	Sieve Analysis	According to Specification	
3	ASTM D 1440	Passing Sieve # 200	9.4%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture Contet	7%	
6	ASTM D 1557	Modified Proctor	2.185	
7	ASTM D 1883	CBR	61.7%	

Comments by:	Comments by:

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	abdelrahman	abdelrahman		A
QA/QC *	Ahmed AboTaid	Ahmed AboTaid		A
GARB *				
Employers Representative				

* Alignment / Bridges / Culvert Only



Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - 2 From FOHA To MARS MATROUH
From Station 504+000 To Station 942+177



PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	18/5/2023	code	Station	557+000	557+500
Location	KP558+000	W012-1	Material	Prepared Sub Grade	
TEST COMPANY	Negmaz AL-Khalaf 2				
Visual inspection test	operate by	Gomez Raster Lab.			

Gradient test

gradation of bulk materials				SAMPLE WEIGHT (g)				21300.00	gm	table classify
sieve size	5	4	3	1 1/2	3/4	3/8	# 4	PASS		
Mass retained (g)	0.0	0.0	0.0	872.0	2895.0	1083.0	2060.0			
Cumulative Retained (g)	0.0	0.0	0.0	872.0	3767.0	12550.0	14610.0			
Cumulative Retained %	0.0	0.0	0.0	2.7	25.0	37.5	37.5			PRO
Cumulative Passing %	100.0	100.0	100.0	97.3	75.0	42.5	32.7			WC
										CBR
										81.7%

soft material gradation				WT. OF sample				500.00	gm
sieve size	10	40	200						
Cumulative Retained (g)	138.00	256.00	387.00						
Cumulative Retained %	27.60	51.20	77.40						
Cumulative Passing %	72.40	48.80	22.60						

General gradation

sieve size (in)	5	4	3	1 1/2	3/4	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	100.0	100.0	97.3	75.0	42.5	32.7	22.7	15.0	9.4

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

Contractor

Consultant

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شركة جمعة بدر نوح



Electric Express Train - HSR
From El Aya El Shikha City To El Azzam - MATROUH
Section - 1 From FIDA TO MANSARA MATROUH
From Station 557+000 To Station 557+177



PROCTOR TEST

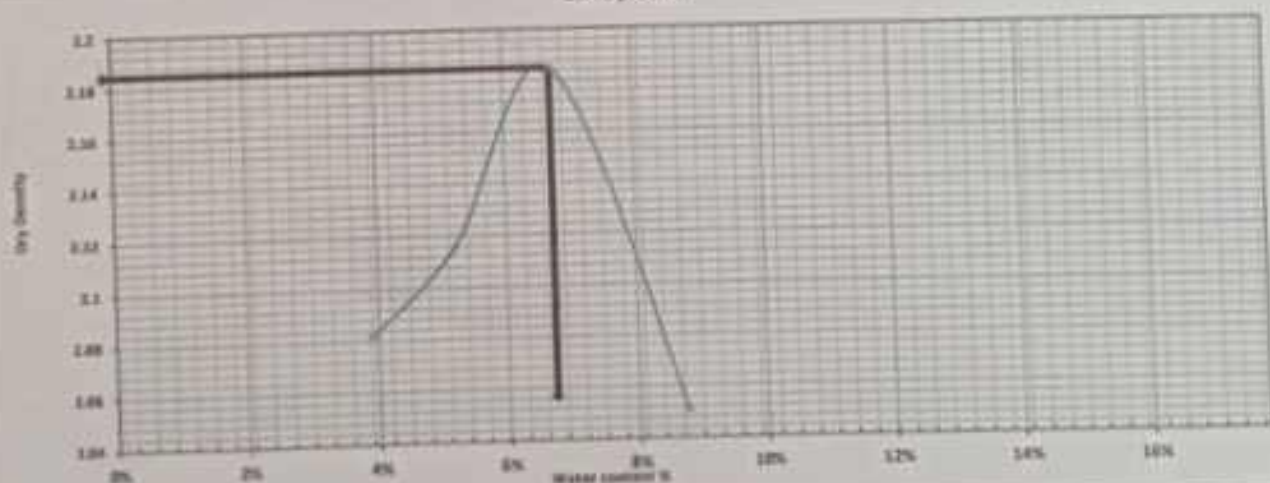
TESTING DATE	11/5/2023	code	Station	557+000	557+500
Location	K.P558+000	SR011.1	Material	Prepared Sub Grade	
NAME COMPANY	Nejma Al Khaleeg 2				

	operate by	Gomaa Infor Lab		
Weight of empty mold	9435.8		MAX Dry Density	2.285
Mold Volume	2104.9		Water content %	7.88

trial no :	1	2	3	4		
Wt. Of Mold + wet soil	10991.8	11114.8	11348.8	11114		
WT. WET SOIL	4961.8	4974.8	4918.8	4764.8		
Wt. Density	2.367	2.338	2.336	2.235		

Tare No.	1	1	9	9	11	11	8	8				
Tare wt	27.08	27.08	27.58	27.58	28.38	28.38	28.5	28.5				
Wt. Of wet soil & tare	198.02	198.02	118.29	118.29	125.69	125.69	123.08	123.08				
Wt. Of dry soil & tare	145.18	145.18	105.96	105.96	121.89	121.89	115.5	115.5				
Wt. Of water	4.8	4.8	4.2	4.2	6.7	6.7	8.0	8.0				
Wt. Of dry soil	118.1	118.1	78.4	78.4	96.5	96.5	89.0	89.0				
Water content %	4.1%	4.1%	5.4%	5.4%	7.0%	7.0%	9.0%	9.0%				
Max Water content %	4.1%		5.4%		7.0%		9.0%					
Dry Density	2.082		2.116		2.185		2.081					

curve proctor



Contractor

Consultant

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شركة جمعه بدر نوح

Handwritten signature of the consultant.

California Bearing Ratio TEST

147700 0475	1/5/2021	code	Station	557+000	557+500
147700 0475	1/5/2021	557+500	Material	Prepared Sub Grade	
147700 0475	1/5/2021	557+500	Material	Prepared Sub Grade	

1. Last Minute

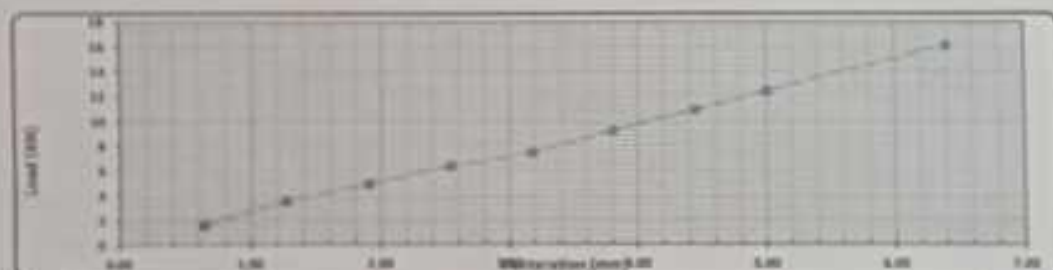
Model	χ^2
Model 1	11.72
Model 2	10.95
Model 3	10.95
Model 4	10.95
Model 5	10.95
Model 6	10.95
Model 7	10.95
Model 8	10.95
Model 9	10.95
Model 10	10.95
Model 11	10.95
Model 12	10.95
Model 13	10.95
Model 14	10.95
Model 15	10.95
Model 16	10.95
Model 17	10.95
Model 18	10.95
Model 19	10.95
Model 20	10.95
Model 21	10.95
Model 22	10.95
Model 23	10.95
Model 24	10.95
Model 25	10.95
Model 26	10.95
Model 27	10.95
Model 28	10.95
Model 29	10.95
Model 30	10.95
Model 31	10.95
Model 32	10.95
Model 33	10.95
Model 34	10.95
Model 35	10.95
Model 36	10.95
Model 37	10.95
Model 38	10.95
Model 39	10.95
Model 40	10.95
Model 41	10.95
Model 42	10.95
Model 43	10.95
Model 44	10.95
Model 45	10.95
Model 46	10.95
Model 47	10.95
Model 48	10.95
Model 49	10.95
Model 50	10.95
Model 51	10.95
Model 52	10.95
Model 53	10.95
Model 54	10.95
Model 55	10.95
Model 56	10.95
Model 57	10.95
Model 58	10.95
Model 59	10.95
Model 60	10.95
Model 61	10.95
Model 62	10.95
Model 63	10.95
Model 64	10.95
Model 65	10.95
Model 66	10.95
Model 67	10.95
Model 68	10.95
Model 69	10.95
Model 70	10.95
Model 71	10.95
Model 72	10.95
Model 73	10.95
Model 74	10.95
Model 75	10.95
Model 76	10.95
Model 77	10.95
Model 78	10.95
Model 79	10.95
Model 80	10.95
Model 81	10.95
Model 82	10.95
Model 83	10.95
Model 84	10.95
Model 85	10.95
Model 86	10.95
Model 87	10.95
Model 88	10.95
Model 89	10.95
Model 90	10.95
Model 91	10.95
Model 92	10.95
Model 93	10.95
Model 94	10.95
Model 95	10.95
Model 96	10.95
Model 97	10.95
Model 98	10.95
Model 99	10.95
Model 100	10.95

From No.	To
From W-1 (agent)	30.00
From W-2 (other W-1 agent)	175.00
From W-3 (other W-1 agent)	375.00
W-1, all sources	580.00
From W-1 (agent)	580.00
Monetary Foundation No.	6.5

The office	
Wages	£
Rate	100
Extra charge (over)	1.20
Fixed charge (over)	1.20
Materials	0
Variable charge (over)	1.10
Fixed charge (over)	1.10

Loading...

permutation	0.64	0.77	0.91	0.96	0.98	0.99	0.99	0.99	0.99
Exact Sampling (log)	100.00	114.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Exact (log)	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



4. *Salmonella*...

Parameter	1 mol	Standard 1 mol	CD	Male Comparison	Comparison	CD
(mm)	(%)	(%)	(%)	(%)	(%)	N 100 (p < 0.05)
1.00	0.30	0.3	0.3%	0	0	0.3%
0.60	0.10	0.0	0.1%	0	0	0.1%

1. *Journal of Management Studies*, 1991, 28, 1.

Consultant Engineers

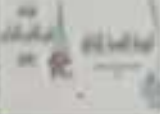
10

References

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المعمل المركزي
شركة جمعة بدر نوح

 KX CONSULTING OFFICE المكتب الاستشاري للنقل - شركة بدر نوح	 ROAD 100%	Shabab Express from : MEN From : 11 km 25 Station 085 To : 11 Station - 100% Road Station : 1 From 085 To : 100% Road From Station 100% To : 100% Road	

**Absorption & Aggregate specific gravity
AASHTO-T23**

TESTING DATE:	11/5/2023	code	Station	557+000	557+800
LOCATION	K.P552+000	30412.4	Material	Prepared Sub Grade	
NAME COMPANY	Negma AL-Khaleeg 2				

Weight of sample	2000.00	gm
Weight of saturated -dry surface sample (B)	2384.30	gm
Weight of saturated sample in water (C)		gm
Weight of dry sample after heating (A)	1986.30	gm

Results:-

Bulk specific gravity = $A / (B-C)$	0.953	
Apparent specific gravity = $A / (A-C)$	1.000	
Absorption = $(B-A)/A$	4.915	%

Los Angeles abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3491	30.18

Lab. Engineer

Name :

Signature :

OPERATE BY
GOMMA ROAD LAB

Consultant Engineer

Name :

Signature :

المعمل المركزي
شركة جمعه بدر نوح

INSPECTION REQUEST



Contractor Company	NEGMAA AL KHALIEG CO.		Designer Company	
Issued by Contractor	Name	Sign	Date	Time
	Eng/ Abdelrahman Abdehayed	<i>Abdelrahman Abdehayed</i>	22/07/2023	
Contractor Reference	NKH2-1	Sub Ballast		
Received by ER		MIR		

CODE - 1	55 to 571	01 to 51	By KKR Note
	Station Reference	Segment Reference	For Whichever point only Start & end is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials		REPLACEMENT FILL MATERIAL RESULTS			
Location to be Used	557+000 To 557+200	(Sub Ballast 1)			
	557+000 To 557+200	(Sub Ballast 2)			
	557+200 To 557+400	(Sub Ballast 1)			
	557+200 To 557+400	(Sub Ballast 2)			
	557+400 To 557+500	(Sub Ballast 1)			
	557+400 To 557+500	(Sub Ballast 2)			
MAR Approval No				Date	
Supplier Name					
Test Requirement		Specification		Clause	
Reference Photos		Yes attached / No	Other		
Item	Description	Unit	Quantity	Arrival Date	Note
1	Seive Analysis	M³	5000	20/07/2023	
2	Atterberg Limits	M³	5000	20/07/2023	
3	Proctor	M³	5000	20/07/2023	
4	CBR	M³	5000	22/07/2023	
5	Los Anglos	M³	5000	22/07/2023	
Comments by:			Comments by:		
A Sample has been taken from fill material by KK office to (GOMAA BADR LAB) and the result founded meet the specifications accepted			<i>تم اخذ عينة من الحصى من الموقع الى مختبر كك (GOMAA BADR LAB) والنتيجة تتوافق مع المواصفات المقبولة</i>		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/ Abdelrahman Abdehayed	<i>Abdelrahman Abdehayed</i>		
QA/QC *	<i>Ahmed Abouzaid</i>	<i>26/7/2023</i>		
GARB**				
Employers Representative				

MATERIAL APPROVAL REQUEST



Contractor Company	NEGMAA AL-KHALEEG CO.			Designer Company	
Issued by Contractor	Name Eng/ Abdelrahman Aboelyazed	Sign <i>Abdelrahman Aboelyazed</i>	Date 22/07/2023	Time	
Contractor Reference	NKH2-1	Sub Ballast			
Received by ER			MAR		

CODE - 1	K1 to K21 Station Reference	D1 to D3 Deposit Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Test Materials		Soil (A-1-a)		
Location of Test		K.P (558+000)		
Item	Specification	Test Requirement	Test Result Attachment	Remarks
1	ASTM D 75	Aggregate Sampling	According to Specification	
2	ASTM C 136	Sieve Analysis	According to Specification	
3	ASTM D 1440	Passing Sieve # 200	6.5%	
4	ASTM D 4318	Atterberg Limit	N.P	
5	ASTM D 2974	Moisture Content	7.5%	
6	ASTM D 1557	Modified Proctor	2.212	
7	ASTM D 1883	CBR	84.6%	

S.P.G

2.561

Comments by:	Comments by:

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng/ Abdelrahman Aboelyazed	<i>Abdelrahman Aboelyazed</i>		A
QA/QC *	<i>Ahmed Abouzaid</i>	<i>Ahmed Abouzaid</i>		A
GARB *				
Employers Representative				

* Alignment / Bridges, Culvert Only



Electric Express Train - HSR
From El Khay El Sakina City To El Matrouh - MATROUH
Section - 7 From FOUA To MARS MATROUH
From Station N°4000 To Station N°4017



PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	28/1/2023	code	ZONE	S57+000	S57+500
location	K.P 558+000	N°4017-4	Material	Sub Ballast	
LINE COMPANY	Nagmas Al-khaleeg 2				
Method: Intention test	operate by	Gomaa Badar Lab			

Gradient test

Gradation of bulk materials			SAMPLE WEIGHT (g)		30000.00		gm	soils classify	
sieve size	3	1 1/2	1	3/4	1/2	3/8	# 4	PASS	
Mass retained (g)	0.0	1102.0	5541.0	4437.0	2952.0	3241.0	3345.0		
Cumulative Retained (g)	0.0	1102.0	6643.0	11080.0	14032.0	17273.0	20618.0	PRO	2.212
Cumulative Retained %	0.0	3.6	18.5	29.7	38.4	48.0	58.9	WC	7.5
Cumulative Passing %	100.0	96.4	81.5	70.3	61.6	52.0	41.1	CBR	54.6%

Soil's material gradation			WT OF sample		500.00	gm
sieve size	10	40	200			
Cumulative Retained (g)	146.90	288.95	417.31			
Cumulative Retained %	29.38	57.79	83.46			
Cumulative Passing %	70.62	42.21	16.54			

General gradient

sieve size (in)	3	1 1/2	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	96.4	81.5	70.3	61.6	50.0	39.1	27.6	17.1	5.0

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

Contractor

Consultant

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28/1/2023



From El AIN El Basha City To El Alamein - MATMOUH
Section - 7 From FOHA TO MARSA MATMOUH
From Station 554+000 To Station 556+177

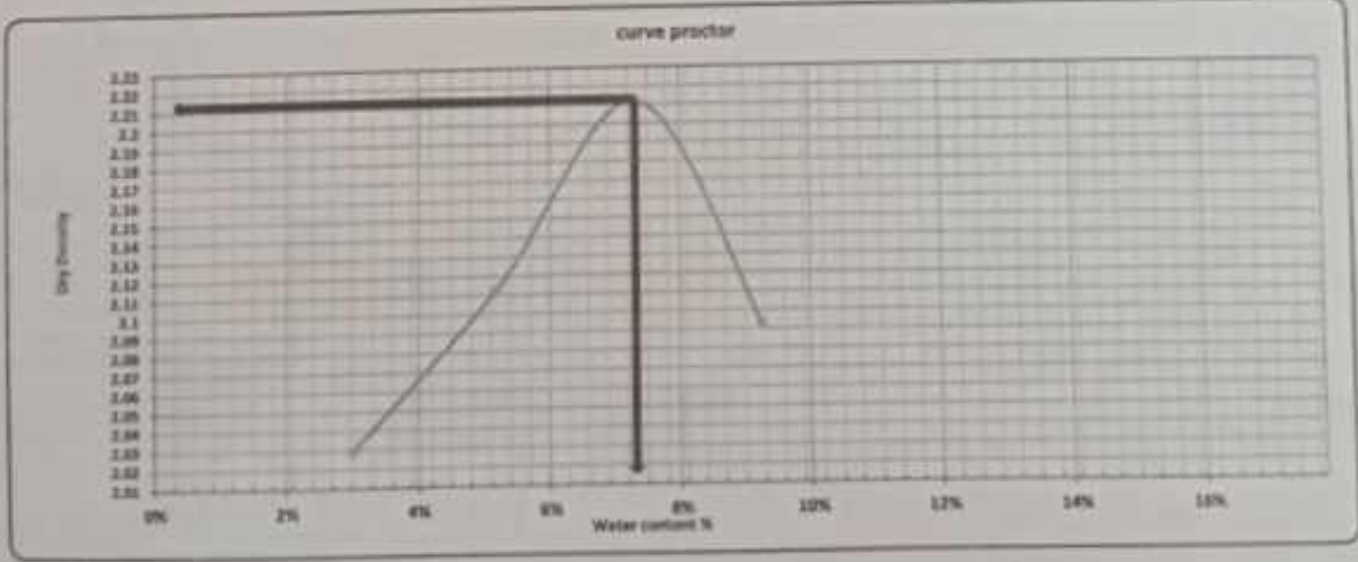


PROCTOR TEST

TESTING DATE	28/7/2023	0008	ZONE	557+000	557+500
LOCATION	K.P 558+000	NK112-1	Material	Sub Ballast	
NAME COMPANY	Nagmas Al-khaleeg 2				
operate by		GOMAA BADR LAB			
Weight of empty mold :	4210.8	MAX Dry Density		2.213	
Mold Volume:	2104.9	Water content %		7.50	

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10618.0	10894.0	11217.0	11831		
WT. WET SOIL	4408.0	4684.0	5007.0	4921.0		
Wt. Density	2.094	2.225	2.379	2.290		

Tare No.	4	4	8	8	12	12	17	17				
Tare wt.	26.9	26.9	24.9	24.9	27.6	27.6	22.8	22.8				
Wt. Of wet soil & tare	135.4	135.4	129.3	129.3	148.3	148.3	138.2	138.2				
Wt. Of dry soil & tare	132	132	123.9	123.9	138.4	138.4	128.2	128.2				
Wt. Of water	3.4	3.4	5.3	5.3	9.9	9.9	10.0	10.0				
Wt. Of dry soil	105.1	105.1	98.1	98.1	138.8	138.8	105.6	105.6				
Water content %	3.2%	3.2%	5.4%	5.4%	7.5%	7.5%	9.5%	9.5%				
A.V. Water content %	3.2%		5.4%		7.5%		9.5%					
Dry Density	2.029		2.112		2.212		2.092					



Contractor

Consultant

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شركة جمعه بدر نوح

Handwritten signature and stamp of the Consultant.



Electric Express Train - HSR

California Bearing Ratio TEST

TESTING DATE	22/7/2023	CODE	ZONE	SST=000	SST=500
Location	K.P 558+000	NK012-1	Material	Sub Ballast	
NAME COMPANY	Nagman Al-khaleeg2	operate by	GOMAA RADILAB		

Test Results

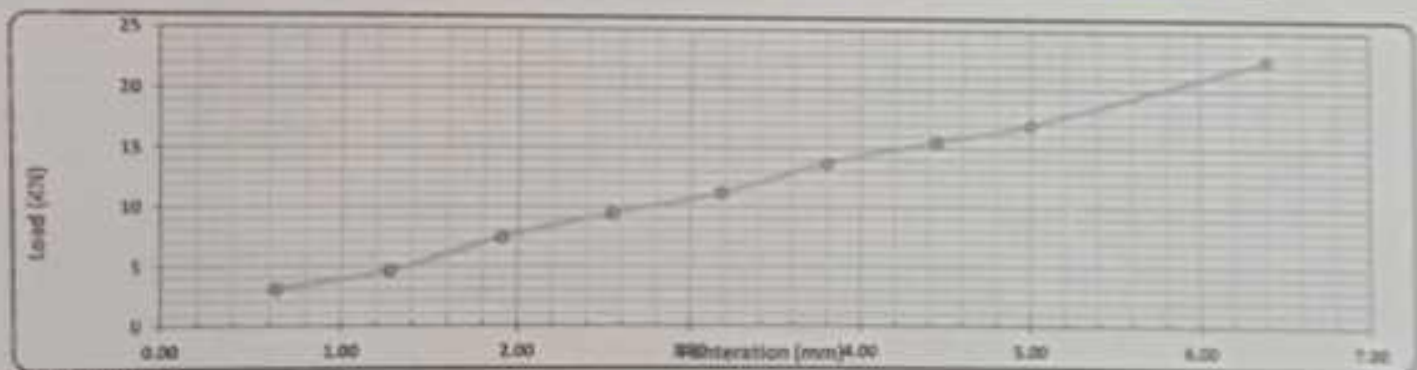
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm ³)	2177.4
Mold WT. (gm)	14444
Mold WT. + Wet WT. (gm)	21541
Wet WT. (gm)	8117
Wet Density (g/cm ³)	2.354
Dry Density (g/cm ³)	2.191
Proctor Density (g/cm ³)	2.212
Compaction %	99

Moisture Ratio After Compacted Mold	
Tare No.	8
Tare WT. (gm)	17.2
Tare WT. + Wet WT. (gm)	151.36
Tare WT. + Dry WT. (gm)	143.9
Wt. of water	8.5
Dry WT. (gm)	114.4
Moisture Content %	7.3

Swelling	
Mold No.	1
State	Soil
Initial Height (mm)	10.00
Final Height (mm)	10.70
Settlement	0
Swelling Height (mm)	0.70
Swelling Ratio %	0%

Loading Reading

penetration	0.64	1.27	1.91	2.54	3.18	3.81	4.45	5.08	5.71
Load Reading (kg)	312.00	624.00	936.00	1248.00	1560.00	1872.00	2184.00	2496.00	2808.00
Load (KN)	3.1	6.2	9.3	12.5	15.6	18.7	21.8	24.9	28.1



Calculations :-

Penetration (mm)	Load (KN)	Standard Load (lb)	CBR (%)	Mold Compaction (%)	Compaction (%)	CBR (%)
2.50	12.5	13.4	76.3%	99	100	71.8%
5.00	24.9	26.8	94.6%			85.4%

Lab. Specialist

Name: *[Signature]*
Sigs: *[Signature]*

المعمل المركزي
شركة جمعه بدر نوح

Contracting Engineer

Name: *[Signature]*
Sigs: *[Signature]*

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	22/7/2023	code	ZONE	557+000	557+500
LOCATION	K.P 558+000	NKH2-1	Material	Sub Ballast	
NAME COMPANY	Negmaa Al-khaleeg 2				

Weight of sample	2000.00	gm
Weight of saturated -dry surface sample (B)	2028.80	gm
Weight of saturated sample in water (C)	1250.30	gm
Weight of dry sample after heating (A)	1994.00	gm

Results:-

Bulk specific gravity = $A / (B-C)$	2.581	
Apparent specific gravity = $A / (A-C)$	2.681	
Asorbtion = $(B-A)/A$	1.745	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3875	22.50

Lab. Engineer

15/7/23

Sign:

المعمل المركزي
شركة جمعه بدر نوح

OPERATE BY
GOMAA BADR LAB

Consultant Engineer

Name:

Sign:

26/7/23

 	Electric Engineer - Item - HSR From El Ain El Sakone City To El Alamein - MATROUHA Section - 7 From PORA To MARSA MATRUH From Station 584+000 To Station 585+100		

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE	9/4/2023	code	ZONE	557+000	557+000
LOCATION	K.P 508+000	557+000			
NAME COMPANY	Negmaa Al-shaleeg 2				
Contract description test	operate by	James Butler Lab			

A. Gravelly soil

A. Gravelly soil				SAMPLE WEIGHT (g)		2400.00		gm	soil classify
sieve size	2	1.5	1	40	20	8.5	# 4	PASS	
Mass retained (g)	8.5	185.5	504.5	2280.0	1365.0	532.5	1175.0		
Cumulative Retained (g)	8.5	194.0	698.5	7100.0	8065.0	11422.5	13597.5		PRO
Cumulative Retained %	0.0	7.7	23.5	21.4	37.0	46.5	61.4		WC
Cumulative Passing %	100.0	92.3	77.5	68.6	63.0	53.5	38.6		CBR

B. sand material gradient				WT. OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	125.00	219.00	336.20					
Cumulative Retained %	25.00	43.80	67.24					
Cumulative Passing %	75.00	56.20	32.76					

C. General gradient										
sieve size(mm)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
mass (mm)	50.0	27.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	92.3	77.5	68.6	63.2	63.0	38.6	27.4	26.6	1.0

ATTERBERG LIMITS	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTIC INDEX (PI)
	34.2%	29.5%	4.7%

Contractor

Consultant

المعمل المركزي
شركة جمعه بدر نوح

Abdul Latif JAM



Electric Express Train - HSR

المملكة العربية السعودية
Kingdom of Saudi Arabia



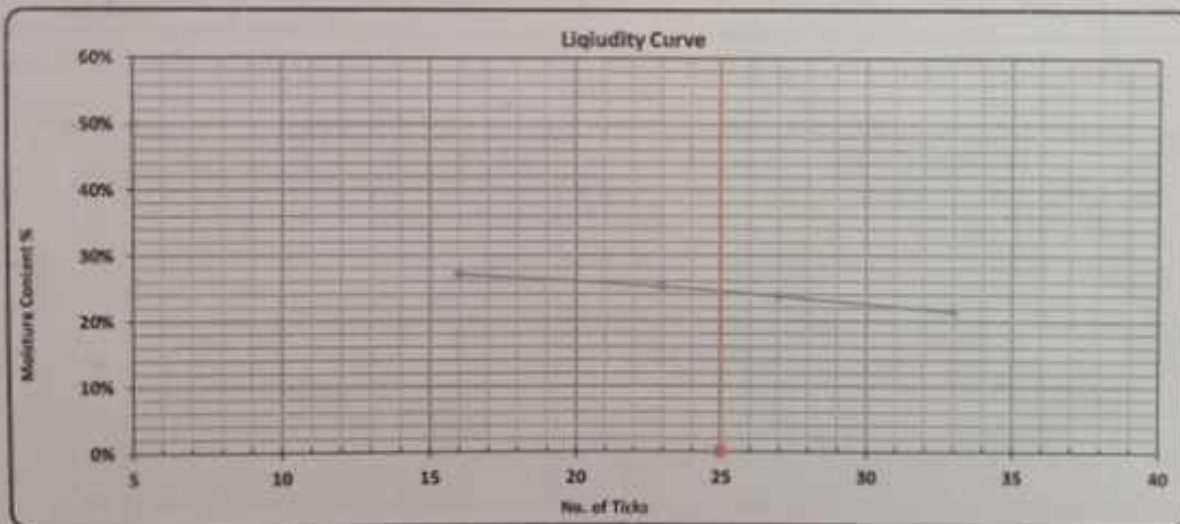
شركة بادر نوح
Badr Nuh Company

Plasticity and Liquidity Test - Atterberg Limits

TESTING DATE:	9/4/2023	0000	ZONE	557+000	557+500
location	K.P. 558+000	NKH2-1			
NAME COMPANY	Negmas Al-khalneg 2				

Testing Results :-

Test	Liquid Limit				Plastic Limit	
No. of Ticks	33	27	23	16	-	-
Tare No.	13	15	14	16	B	A
Tare WT. (gm)	26.59	27.56	27.02	25.21	11.97	12.55
Tare WT. + Wet WT. (gm)	48.91	47.87	50.25	50.79	12.97	13.08
Tare WT. + Dry WT. (gm)	44.98	43.98	45.58	45.35	12.80	12.99
Water WT. (gm)	3.93	3.89	4.67	5.44	0.17	0.09
Dry WT. (gm)	18.39	16.42	18.56	20.14	0.83	0.44
Moisture Content %	21.4%	23.7%	25.2%	27.0%	20.5%	20.5%
Average %					20.5%	



L.L.	P.L.	P.I.
24.2%	20.5%	3.8%

Lab. Specialist	Lab. Engineer	Consultant Engineer
-----------------	---------------	---------------------

Name :

[Signature]

Name :

Name :

[Signature]

Sign :

المعمل المركزي
شركة جمعه بدر نوح

Sign :

Sign :



Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - T From FOKA TO MARSA MATROUH
From Station 554+000 To Station 558+177

الهيئة العامة
للتنظيم والإشراف
على قطاع
النقل



الهيئة العامة
للتنظيم والإشراف
على قطاع
النقل



PROCTOR TEST

TESTING DATE:	10/4/2023	code		ZONE	557+000	557+900
Location	K.P 558+000	NR012-1				
NAME COMPANY	Negmaa Al-khaleeg 2					

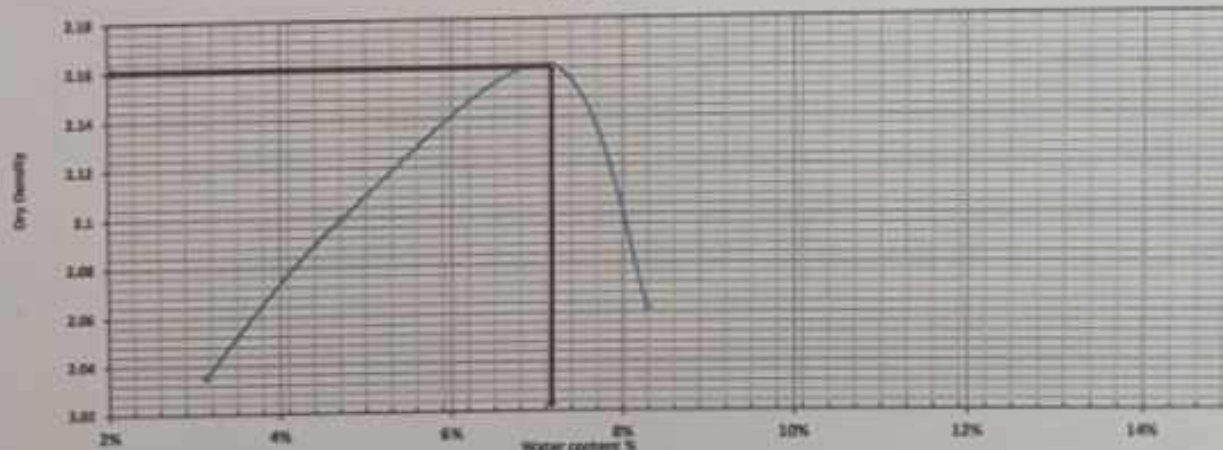
Weight of empty mold :	4507.0
Mold Volume:	2104.9

MAX Dry Density	2.16
Water content %	7.2

trial no :	1	2	3	4		
Wt. Of Mold+ wet soil	10925.0	11124.0	11381.0	11206		
WT. WET SOIL	4418.0	4627.0	4874.0	4699.0		
Wt. Density	2.099	2.198	2.314	2.232		

Tare No.	12	12	23	23	7	7	3	3				
Tare wt.	25.99	25.99	25.44	25.44	25.22	25.22	24.89	24.89				
Wt. Of wet soil & tare	146.0	146.0	190.0	190.0	110.2	110.2	156.3	156.3				
Wt. Of dry soil & tare	142.35	142.28	96.64	96.64	104.3	104.5	146.23	146.23				
Wt. Of water	3.7	3.7	3.4	3.4	5.7	5.7	10.1	10.1				
Wt. Of dry soil	116.4	116.4	71.2	71.2	79.3	79.3	121.3	121.3				
Water content %	3.1%	3.1%	4.7%	4.7%	7.2%	7.2%	8.3%	8.3%				
AV. Water content %	3.1%		4.7%		7.2%		8.3%					
Dry Density	2.035		2.099		2.160		2.061					

curve proctor



operate by
Gomaa Badr Lab

Consultant

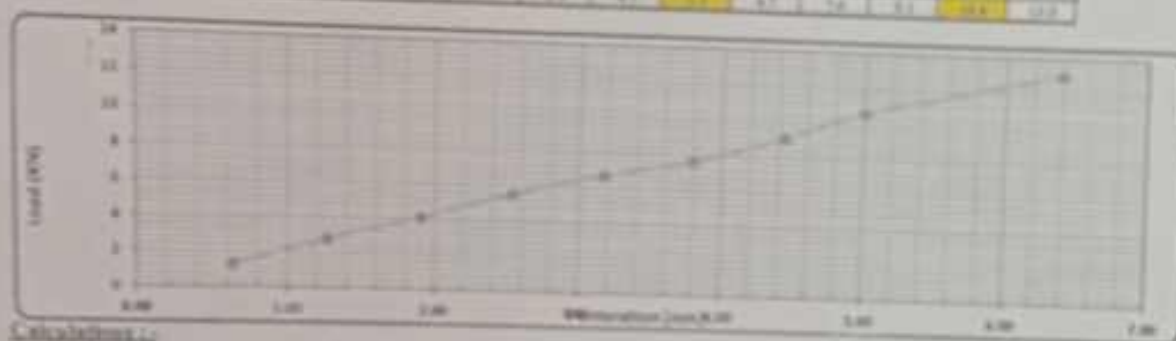
Abdellatif Samy

Model No.	
Model 101 (100%)	1177.2
Model W.L. (90%)	1000.0
Model W.L. + War W.L. (90%)	1075.6
War W.L. (90%)	492.0
War Density (1/100000)	1.261
Org Density (1/100000)	1.111
Protein Density (1/100000)	1.668
Contraction Rate %	30

Test No.	Oil
Gas W.T. ppm	70
Gas W.T. - Gas W.T. ppm	11.6
Gas W.T. - Oil W.T. ppm	118.98
Wt. % water	134.69
Oil W.T. ppm	5.9
Water Content %	112.8
	7.0

Swelling	
Moist No.	
Test	1.0
Spring Sample (moist)	6.75
Flow Sample (moist)	6.0
Influence	0.1
Spring Sample (moist)	10.0
Swelling Ratio %	100

Parameter	0.44	0.57	0.80	0.94	0.99	1.00	0.45	0.58	0.80
Load Resistance (kg)	270.00	315.00	370.00	420.00	450.00	470.00	270.00	315.00	370.00
Load (%)	0.5	0.6	0.7	0.8	0.9	0.9	0.5	0.6	0.7



Parameter	Control	Residue II Control	100	Mean Temperature	Temperature	100
Speed	5.0	10	15	15.1	15.1	15.100 (100%)
1.00	5.12	11.4	20.7%			20.7%
2.00	14.37	18.2	27.2%	18	180	27.2%

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

Microsoft Engineering

Figure 1

1999

المعمل المركزي
شركة جمعه بدر نوح

محضر استلام موقع

مشروع: أعمال الجسر الترابي لمشروع القطار الكهربائي السريع قطاع فوكه
- مطروح في المسافة من كم ٥٥٧+٠٠٠ الى كم ٥٥٧+٥٠٠ بطول
٠,٥٠٠ كم

تنفيذ: شركة نجمة الخليج للمقاولات والتوريدات العامة
إشراف: المنطقة الخامسة - منطقة غرب الدلتا

طبقاً للعقد رقم (٢٠٢٤/٢٠٢٣/٧٧٨) بتاريخ : ٢٠٢٣/١١/٣٠

إنه في يوم السبت الموافق ٢٠٢٣/١٢/٠٩ اجتمع كل من:-

- ١- السيد المهندس /محمد حسني فياض مدير عام المشروعات - الهيئة العامة للطرق والكباري
- ٢- السيد المهندس /إبراهيم عبد الله الحناوي مهندس العملية - الهيئة العامة للطرق والكباري
- ٣- السيد المهندس / أحمد محمد مدير مشروع - شركة نجمة الخليج للمقاولات والتوريدات العامة

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 ٢٠٢٣/١٢/٠٩ هو تاريخ استلام الموقع وبدء الأعمال بالعملية.
واقفل المحضر على ذلك ووقع الحضور

التوقيعات

٣- السيد المهندس / أحمد محمد

٢- السيد المهندس / إبراهيم عبد الله الحناوي

١- السيد المهندس / محمد حسني فياض

رئيس الإدارة المركزية

منطقة غرب الدلتا

الاسكندرية - مرسى مطروح

عميد . مهندس /

"هاني محمد محمود طه"

٢٠٢٣
١٢/٣١