

قائمة الكميات الواردة بالمستخلص الجارى رقم (٣)

مشروع : أعمال الجسر الترابى و الاعمال الصناعية لمشروع القطار الكهربائى السريع (العين السخنة - العاصمة الإدارية - العلمين - مطروح) قطاع غرب النيل فى المسافة من الكم ٤٣٢,٦٠٠ الى الكم ٤٣٤,٦٠٠ بطول ٢ كيلومتر اتجاه النجيلة

رقم البند وبيانه : (١-٤) علاوة مسافة النقل ١٦٥ كم

تنفيذ : شركة سيدى عبدالرحمن للمقاولات و التوريدات

م ٣

0.0

مقدار العمل السابق :

الكمية	الابعاد (متر)		الموقع الكيلومترى		بيان الاعمال بالمقايسة
	مساحة المقطع	طول	الى	من	
10989.019	5.495	2000	434+600	432+600	القطاع الأول
10989.019	اجمالى الكميات خلال فترة المستخلص الحالية (م ٣)				
10989.019	الاجمالى الكلى (م ٣)				

مهندس الهيئة
م / إبراهيم الحناوى

مهندس الاستشارى
مكتب د /سعد الجيوشى
م / مصطفى نجم

مهندس الاستشارى
مكتب XYZ
م / محمد خليل

مهندس الشركة
م / عبدالمنعم احمد

قائمة الكميات الواردة بالمستخلص الجارى رقم (٣)

مشروع : أعمال الجسر الترابى و الاعمال الصناعية لمشروع القطار الكهربائى السريع (العين السخنة - العاصمة الإدارية - العلمين - مطروح) قطاع غرب النيل فى المسافة من الكم ٤٣٢,٦٠٠ الى الكم ٤٣٤,٦٠٠ بطول ٢ كيلومتر اتجاه النجيلة

رقم البند وبيانه : (٤-١-٢) اعمال توريد و تشغيل طبقة تأسيس (prepared subgrade) (السعر فى مايو ٢٠٢٣)

تنفيذ : شركة سيدى عبدالرحمن للمقاولات و التوريدات

٣م

0.0

مقدار العمل السابق :

الكمية	الابعاد (متر)		الموقع الكيلومتري		بيان الاعمال بالمقايضة
	مساحة المقطع	طول	الى	من	
3189.019	1.595	2000	434+600	432+600	القطاع الأول
3189.019	اجمالى الكميات خلال فترة المستخلص الحالية (٣م)				
3189.019	الاجمالى الكلى (٣م)				

مهندس الهيئة
م / ابراهيم الحناوى

مهندس الاستشارى
مكتب د / اسعد الجيوشى
م / مصطفى نجم

مهندس الاستشارى
مكتب XYZ
م / محمد خليل

مهندس الشركة
م / عبدالمنعم احمد

قائمة الكميات الواردة بالمستخلص الجارى رقم (٣)

مشروع: أعمال الجسر الترابى و الاعمال الصناعية لمشروع القطار الكهربائى السريع (العين السخنة - العاصمة الإدارية - العظمين - مطروح) قطاع غرب النيل فى المسافة من الكم ٤٣٢,٦٠٠ الى الكم ٤٣٤,٦٠٠ بطول ٢ كيلومتر اتجاه النجيلة

رقم البند وبيانه : (١-٤-١) اعمال توريد و تشغيل طبقة تأسيس (prepared subgrade) (السعر فى مارس ٢٠٢٣)

تنفيذ : شركة سيدى عبدالرحمن للمقاولات و التوريدات

مقدار العمل السابق : 0.0 م٠ ٣

الكمية	الابعاد (متر)		الموقع الكيلومتري		بيان الاعمال بالمقايسة
	مساحة المقطع	طول	الى	من	
7800	3.900	2000	434+600	432+600	القطاع الأول
7800	اجمالى الكميات خلال فترة المستخلص الحالية (م٣)				
7800	الاجمالى الكلى (م٣)				

مهندس الهيئة
م / ابراهيم الخاوى

مهندس الاستشارى
مكتب د / سعد الجيوشى
م / مصطفى نجم

مهندس الاستشارى
مكتب XYZ
م / محمد خليل

مهندس الشركة
م / عبدالمنعم احمد

قائمة الكميات الواردة بالمستخلص الجارى رقم (٣)

مشروع : أعمال الجسر الترابى و الاعمال الصناعية لمشروع القطار الكهربائى السريع (العين السخنة - العاصمة الإدارية - العلمين - مطروح) قطاع غرب النيل فى المسافة من الكم ٤٣٢,٦٠٠ الى الكم ٤٣٤,٦٠٠ بطول ٢ كيلومتر اتجاه النجيلة

رقم البند وبيانه : (١-٤) قيمة المادة المحجيرة

تنفيذ : شركة سيدى عبدالرحمن للمقاولات و التوريدات

٣م

0.0

مقدار العمل السابق :

الكمية	الابعاد (متر)		الموقع الكيلومتري		بيان الاعمال بالمقايضة
	مساحة المقطع	طول	الى	من	
10989.019	5.495	2000	434+600	432+600	القطاع الأول
10989.019	اجمالى الكميات خلال فترة المستخلص الحالية (٣م)				
10989.019	الاجمالى الكلى (٣م)				

مهندس الهيئة
م / ابراهيم الحناوى

مهندس الاستشارى
مكتب د / سعد الجيوشى
م / مصطفى نجم

مهندس الاستشارى
مكتب XYZ
م / محمد خليل

مهندس الشركة
م / عبدالمنعم احمد

قائمة الكميات الواردة بالمستخلص الجارى رقم (٣)

مشروع : أعمال الجسر الترابى و الاعمال الصناعية لمشروع الفطار الكهربائى السريع (العين السخنة - العاصمة الإدارية - العلمين - مطروح)
قطاع غرب النيل فى المسافة من الكم ٤٣٢,٦٠٠ الى الكم ٤٣٤,٦٠٠ بطول ٢ كيلومتر اتجاه النجيلة

رقم البند وبيانه : (١-٤) علاوة تحصيل رسوم الكارثة والموازين طبقا للائحة الشركة الوطنية

تنفيذ : شركة سيدى عبدالرحمن للمقاولات و التوريدات

مقدار العمل السابق : 0.0 م٣

الكمية	الابعاد (متر)		الموقع الكيلومتري		بيان الاعمال بالمقايسة
	مساحة المقطع	طول	الى	من	
10989.019	5.495	2000	434+600	432+600	القطاع الأول
10989.019	اجمالى الكميات خلال فترة المستخلص الحالية (م٣)				
10989.019	الاجمالى الكلى (م٣)				

مهندس الهيئة
م / ابراهيم الحناوى

مهندس الاستشارى
مكتب د / اسعد الجيوشى
م / مصطفى نجم
الشيرى

مهندس الاستشارى
مكتب XYZ
م / محمد خليل

مهندس الشركة
م / عبدالمنعم احمد
Meram

المنطقة الخامسة - (غرب الدلتا)

السيد المهندس / رئيس قطاع التنفيذ والمناطق

تحية طيبة.. وبعد،،

بالإحالة إلى مشروع القطار الكهربائى فائق السرعة قطاع (العلمين - فوكة) القطاع السادس
نتشرف بأن نرفق لسيادتكم طيه المقايسة المعدلة بعد اعتماد لجنة المفاوضة للقطاعات
الآتية:

م	اسم الشركة	من المحطة	إلى المحطة	الإتجاه
1	شركة سيدى عبدالرحمن للمقاولات والتوريدات	432+600	434+600	النجيلة

برجاء من سيادتكم التفضل بالأحاطه والتوجيه بالازم

وتفضلوا بقبول فائق الاحترام والتقدير،،

رئيس الإدارة المركزية

المنطقة الخامسة- غرب الدلتا

عميد مهندس/

"هاني محمد محمود طه"



مركز الاستشارات الهندسية
للنقل والطرق والمطارات
(خبراء دوليون)
دكتور/ سعد الجيوشى



الهيئة العامة
للطرق والكبارى
(GARB)



أعمال الجسر الترابي و الأعمال الصناعية لمشروع القطر الكهربائي فائق السرعة قطاع (العلمين - فوكه)
المقايضة المعدلة بعد المفاوضات لبنود الاعمال بتاريخ ١٨-١٢-٢٠٢٣ تنفيذ شركة سيدى عبدالرحمن للمقاولات و التوريدات اتجاه النجيلة
القطاع من المحطة ٤٣٢+٦٠٠ الى ٤٣٤+٦٠٠

رقم البند	بيان الأعمال	الوحدة	الكمية	الفئة	الإجمالي
٤	طبقات الأساس				
١-٤	بالمتر المكعب اعمال توريد وفرش طبقة تأسيس (prepared subgrade) من الاحجار الصلبة المتدرجة ناتج تكسير الكسارات و المطابقة للمواصفات والقصى حجم للحبيبات ١٠٠مم والا تزيد نسبة المار من منخل ٢٠٠ عن ١٢ % والتدرج الوارد بالاشتراطات الخاصة بالمشروع لا تقل نسبة تحمل كاليفورنيا عن ٢٥ % والا تزيد نسبة الفاقد بجهاز لوس الجيوس عن ٣٠ % والا يزيد الانكماش عن ١٥ % والا يقل معامل المرونة (Ev2) من تجربة لوح التحميل عن ٨٠ ميجاباسكال ويتم فردها على طبقتين باستخدام الآلات التسوية الحديثة على ان لا يزيد سمك الطبقة بعد تمام الدمك عن ٢٥ سم ورشها بالمياة الاصولية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد للهراسات للوصول الى القصى كثافة جافة قصوى (لا تقل عن ٩٥ %) من الكثافة المعملية و الغة تشمل اجراء التجارب المعملية و الحقلية و يتم التنفيذ طبقا لاصول الصناعة والرسومات التنفيذية والبند بجميع مشتملاته طبقا للمواصفات الفنية للمشروع وتقرير الاستشارى و تعليمات المهندس المشرف - يتم احتساب ١,٣ جنية لكل ١ كم بالزيادة او النقصان				
	علاوة مسافة النقل ١٦٥ كم	م٣	10989.019	188.50	2,071,430
	علاوة تحصيل رسوم الكارثة والموازن طبقا لائحة الشركة الوطنية	م٣	10989.019	25.00	274,725
	قيمة المادة المحجزة	م٣	10989.019	161.00	1,769,232
١-١-٤	السعر فى مارس ٢٠٢٣	م٣	7800	143.30	1,117,740
٢-١-٤	السعر فى مايو ٢٠٢٣	م٣	3189.019	146.40	466,872
	الإجمالي				5,700,000
(خمس ملايين و سبعمائة الف جنيه فقط لا غير)					

مدير مشروعات الهيئة

م / محمد حسني فياض

مدير المشروع الهيئة

م / ابراهيم الحناوى

مدير المشروع الاستشارى

م / مصطفى نجم

مدير المشروع المقاول

م / عبدالمنعم احمد

يعتمد
رئيس الادارة المركزية
منطقة غرب الدلتا

الاسكندرية - مرسى مطروح

عميد مهندس /

" هانى محمد محمود طه "



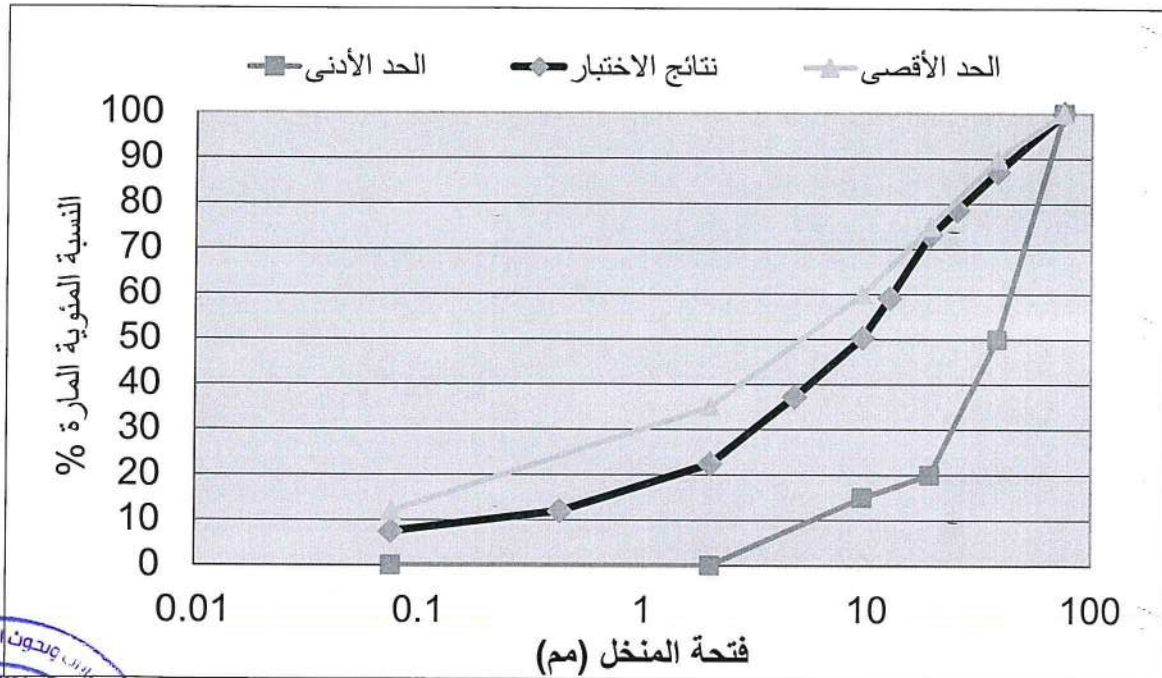
نتائج اختبار التدرج الحبيبي وتصنيف التربة طبقاً لـ AASHTO

تقرير رقم 2023/M/2002-05

اسم العميل : شركة سيدى عبد الرحمن للمقاولات (شريف علوانى)
اسم العملية : القطار الكهربائى السريع - موقع غزالة
التاريخ : ٢٠٢٣/٣/٢٥
مكان العينة : تشوينات
(Subgrade)

*البيانات بعاليه حسب إفادة العميل.

رقم المنخل	3	1.5 in.	1.0 in.	3/4 in.	1/2 in.	3/8 in.	No.4	No.10	No.40	No.200
فتحة المنخل (مم)	75.00	38.00	25.00	19.00	12.50	9.50	4.75	2.00	0.425	0.075
النسبة المئوية المارة %	100.0	87.1	78.6	73.1	59.2	50.3	37.2	22.4	12.0	7.5



حد السيولة (%)	لا يوجد
حد اللدونة (%)	لا يوجد
العينة مقبولة طبقاً لمواصفات المشروع المرسله من العميل.	

اعتماد

اختبار

Los Angeles Abrasion (AASHTO T96)

تقرير رقم 2023/M/2002-01

Client Name: شركة سيدى عبد الرحمن للمقاولات (شريف علوانى)

Test Date: 25/03/2023

Project Name: القطار الكهربائى السريع - موقع غزالة

Specimen type: تشوينات
(Subgrade)

البيانات بعاليه حسب إفادة العميل والنتائج التي تم الحصول عليها تمثل العينة الموردة من قبل العميل دون أدنى مسئولية على المركز.

Test Class		A	B	C	D
Abrasive Charge (No. of Spheres)		12	11	8	6
Sieves		Sample Mass g			
Passing	Retained				
mm (alt.)	mm (alt.)				
37.5 (1 1/2in.)	25.0 (1 in.)	1250			
25.0 (1 in.)	19.0 (3/4in.)	1250			
19.0 (3/4in.)	12.5 (1/2in.)	1250	2500		
12.5 (1/2in.)	9.50 (3/8in.)	1250	2500		
9.50 (3/8in.)	6.35 (1/4in.)			2500	
6.35 (1/4in.)	4.75 (No.4)			2500	
4.75 (No.4)	2.36 (No.8)				5000
Total		5000	5000	5000	5000

Total Class (A)
Mass of Sample before Test g = 5000
Mass of Sample retained on 1.70mm(No.12) g = 3698
Los Angeles Wear = ((5000-Mass Ret.) / 5000)X100 % = 26.04

Tested By



Approved

(Signature)

California Bearing Ratio

تقرير رقم 2023/M/2002-05

Client Name: شركة سيدى عبد الرحمن للمقاولات (شريف علوانى)

Test Date: 25/03/2023

Project Name: القطر الكهربائى السريع - موقع غزالة

Specimen Type : تشوينات
(Subgrade)

البيانات بعاليه حسب إفادة العميل والنتائج التى تم الحصول عليها تمثل العينة الموردة من قبل العميل دون أدنى مسئولية على المركز.

(A) Molding Moisture Contest

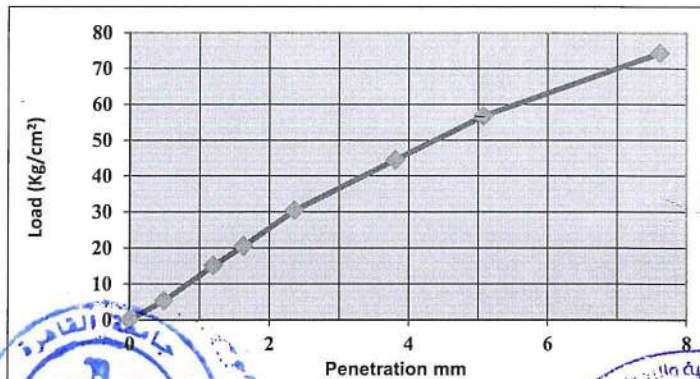
Specimen Name:	1	1	1	Specimen Name:	1	2	3
Can No.	1			Mold Vol. Cm ³	2208		
A. Mass, Wet Soil + can, g	400			Mass of sample, Mold g	13373		
B. Mass, Dry Soil + can, g	380			Mass of Mold g	8458		
C. Mass Moisture (A-B)	20			Mass of sample g	4915		
D. Mass Can g	100			Unite Wet Mass g/cm ³	2.23		
E. Mass of Dry Soil (B-D)	280			Percent Moisture %	7.14		
F. %Moisture ((C/E*100)	7.14			Unite Dry Mass g/cm ³	2.08		

Penetration mm	Test No. 1				Test No. 2				Test No. 3			
	Molded /		TESTED /		Molded /		TESTED /		Molded /		TESTED /	
	Total Load kg	Unit Load (K/cm ²)	Corr. Load K/cm ²	% CBR	Total Load kg	Unit Load (K/cm ²)	Corr. Load K/cm ²	% CBR	Total Load kg	Unit Load (K/cm ²)	Corr. Load K/cm ²	% CBR
0	0	0.00										
0.5	104	5.37										
1.2	292	15.09										
1.63	397	20.51										
2.37	589	30.43		44.11								
3.81	861	44.49										
5.08	1099	56.79		55.13								
7.62	1439	74.35										

Swell

Specimen Name:	1		
Mold No.	1		
Final Hight mm	2.15		
Initial Height mm	2.15		
Difference mm	0		
Sample Length mm	125.00		
Percent Swell %	0.00		

Test No.	1		
Blows Per Layer	10		



Tested By

Approved

نتائج اختبار الامتصاص

تقرير رقم 2023/M/2002-01

اسم العميل : شركة سيدى عبد الرحمن للمقاولات (شريف علوانى) تاريخ الورود : ٢٠٢٣/٣/٢٥

اسم العملية : عدد العينات : ١

البيانات بعاليه حسب إفادة العميل

النسبة المئوية للامتصاص	نوع العينة
٢.٦٢	تشوينات (Subgrade)

اعتماد

١٢٢١١



اختبار



نتائج اختبار التحليل الكيميائي

تقرير رقم 2023/M/2002-01

اسم العميل: شركة سيدى عبد الرحمن للمقاولات (شريف علوانى) تاريخ الورد: ٢٠٢٣/٤/١٠
اسم العملية: القطار الكهربائى السريع - موقع غزالة عدد العينات: ١

البيانات بعاليه حسب إفادة العميل

البيان	تشوينات (Sub ballast)
أملاح كلية %	٠.١٣٠
كلوريدات على هيئة (كل -) %	٠.٠٣٨
الكبريتات على هيئة (كب أس) %	٠.٠٢١

*العينة مودة بمعرفة العميل والمركز ليس عليه أدنى مسئولية إلا على العينة المختبرة.

اعتماد

اختبار



Company : Sidi Abd El Rahman for Construction.

Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6)
- Alamein to Foka

Subject : Determine the deformation and strength characteristics of soil by the plate loading test according specifications DIN 18134:2012-04 and project requirements

Test Location : Station (432+600) to (433+900)

Test Date : 16/04/2023

Repot Date : 06/12/2023

Type of Soil : -----

Test level : +0.50

Report No. : 101:112

Se-P-9

Dear Gentleman,

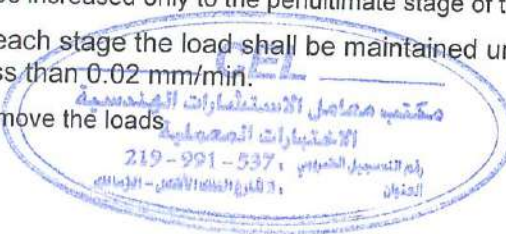
According to the above mentioned subject the test performed as follows:-

Apparatus

1. Loading plates consists of two plates with 600 mm and 300 mm diameter
2. The thickness of plates 30 mm
3. Dial gauges with accuracy 0.01 mm to measuring the settlement
4. Steel straightedges with magnetic supports to fixed the dial gauges
5. Hydraulic jack with pump to transfer reactive loads to the loading plates
6. Dial indicator measuring device with scale capacity 700 Bar (Enerbac)
7. Reaction loading system by roller compactor with weight approximately 15 ton
8. Calibration certificates are attached

Test Procedure

1. Clean the ground on test area to the required level with undisturbed soil
2. Install loading plates 600 mm and 300 mm diameter, hydraulic jack and 3 dial gauges
3. Prior to starting the test applied preloading about 30 seconds.
4. The strain gauge and the dial gauge shall be set to zero
5. For a 600 mm loading plate, the limit values are 2.5 kg/cm²
6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
7. Each change in load (from stage to stage) shall be completed within one minute
8. The load shall be released in 3 stages, to 50 % , 25 % , and approximately 2 % of the maximum load.
9. Following unloading, a further (2nd) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.
11. Remove the loads



Report

1. Evaluation and representation of results
2. Load Settlement curve
3. The test report content the following:-
 - location of test site - Dimension of loading plate
 - Measuring device used - Type of soil
 - Type of Bedding material below the plate -Weathering condition
 - Time and date of measurements - Unusual observation made during test
 - Dial gauge reading and corresponding normal stress - Loading-settlement curve
 - Description of the soil condition below the plate after testing

Report

Test level : Subgrade

- Job requirement: $E_{v2} > 800 \text{ Kg/cm}^2$ (80 Mpa)

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	600
- date of measurement	16/04/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

Evaluation and representation of results

Test No.	Station		First Cycle	Second Cycle	E_{v2} / E_{v1} Ratio
	from	to	E_{v1} (MPa)	E_{v2} (MPa)	
13	432+600	432+625	91	222	2.4
14	432+625	432+650	107	213	2.0
15	432+650	432+675	100	186	1.9
16	432+675	432+700	124	219	1.8
17	432+700	432+725	84	175	2.1
18	432+725	432+750	117	212	1.8
19	432+750	432+775	109	204	1.9
20	432+775	432+800	106	219	2.1
21	432+800	432+825	93	180	1.9
22	432+825	432+850	113	228	2.0
23	432+850	432+875	118	215	1.8
24	432+875	433+000	91	208	2.3

Signature /

Company Name : Sidi Abd El Rhman for Construction.
 Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
 Test Date : 16/04/2023
 report date : 06/12/2023
 Location : Station 432+600 to 432+625
 Test No. : 013

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.85	0.15	19.80	0.20	19.66	0.34	0.23
2	0.83	19.72	0.28	19.45	0.55	19.34	0.66	0.50
3	1.25	19.60	0.40	19.23	0.77	19.05	0.95	0.71
4	1.67	19.48	0.52	19.02	0.98	18.82	1.18	0.89
5	2.08	19.35	0.65	18.80	1.20	18.63	1.37	1.07
6	2.50	19.21	0.79	18.64	1.36	18.57	1.43	1.19

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	19.21	0.79	18.64	1.36	18.57	1.43	1.19
2	1.25	19.24	0.76	18.68	1.32	18.61	1.39	1.16
3	0.625	19.29	0.71	18.73	1.27	18.68	1.32	1.10
4	0.01	19.43	0.57	19.00	1.00	18.92	1.08	0.88

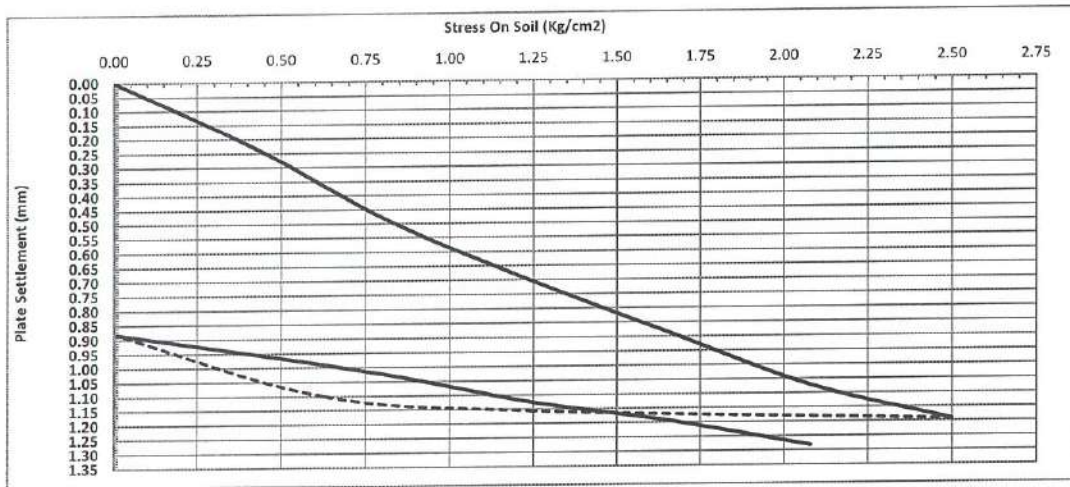
Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.38	0.62	18.90	1.10	18.86	1.14	0.95
1	0.83	19.32	0.68	18.82	1.18	18.77	1.23	1.03
2	1.25	19.27	0.73	18.70	1.30	18.65	1.35	1.13
3	1.67	19.21	0.79	18.63	1.37	18.57	1.43	1.20
4	2.08	19.15	0.85	18.52	1.48	18.48	1.52	1.28



Company Name : Sidi Abd El Rhman for Construction.
 Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
 Test Date : 16/04/2023
 report date : 06/12/2023
 Location : Station 432+600 to 432+625
 Test No. : 013

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm ²)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.23	0.50	0.71	0.89	1.07	1.19

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm ²)	2.50	1.25	0.625	0.01
Settlement (mm)	1.19	1.16	1.10	0.88

D (mm) =	600	S1 (mm)=	0.44	S2(mm)=	0.93	ΔS =	0.48
Ev1 (MPa) =	(0.75*D*Δσ)/ΔS		91				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm ²)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.88	0.95	1.03	1.13	1.20	1.28

Ev2/Ev1 =	2.4
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D (mm) =	600	S1 (mm)=	1.02	S2(mm)=	1.21	ΔS =	0.20
Ev2 (MPa) =	(0.75*D*Δσ)/ΔS		222				

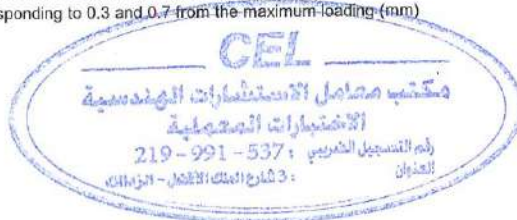
Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

Δσ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : 432+625 to 432+650
Test No. : 014

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.81	0.19	19.75	0.25	19.82	0.18	0.21
2	0.83	19.62	0.38	19.60	0.40	19.70	0.30	0.36
3	1.25	19.43	0.57	19.38	0.62	19.52	0.48	0.56
4	1.67	19.28	0.72	19.24	0.76	19.35	0.65	0.71
5	2.08	19.13	0.87	19.08	0.92	19.18	0.82	0.87
6	2.50	18.95	1.05	18.86	1.14	19.00	1.00	1.06

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	18.95	1.05	18.86	1.14	19.00	1.00	1.06
2	1.25	19.01	0.99	18.92	1.08	19.05	0.95	1.01
3	0.625	19.07	0.93	19.02	0.98	19.12	0.88	0.93
4	0.01	19.31	0.69	19.26	0.74	19.42	0.58	0.67

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.22	0.78	19.19	0.81	19.34	0.66	0.75
1	0.83	19.16	0.84	19.11	0.89	19.26	0.74	0.82
2	1.25	19.07	0.93	19.05	0.95	19.17	0.83	0.90
3	1.67	18.98	1.02	18.93	1.07	19.10	0.90	1.00
4	2.08	18.87	1.13	18.82	1.18	19.02	0.98	1.10

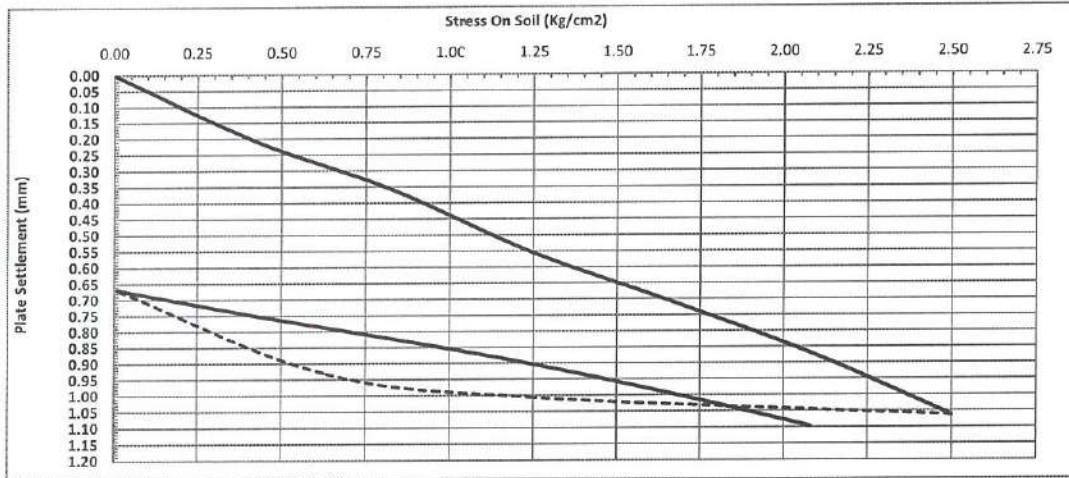


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Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : 432+625 to 432+650
Test No. : 014

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm ²)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.21	0.36	0.56	0.71	0.87	1.06

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm ²)	2.50	1.25	0.625	0.01
Settlement (mm)	1.06	1.01	0.93	0.67

D (mm) =	600	S1 (mm)=	0.33	S2(mm)=	0.74	ΔS =	0.41
Ev1 (MPa) =	(0.75*D*Δσ)/ΔS		107				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm ²)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.67	0.75	0.82	0.90	1.00	1.10

Ev2/Ev1 =	2.0
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D (mm) =	600	S1 (mm)=	0.81	S2(mm)=	1.02	ΔS =	0.21
Ev2 (MPa) =	(0.75*D*Δσ)/ΔS		213				

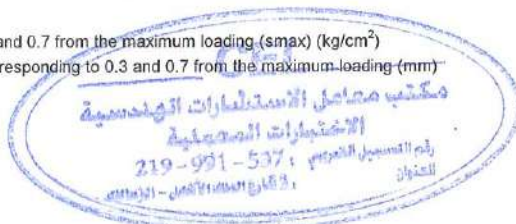
Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

Δσ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+650 to 432+675
Test No. : 015

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.83	0.17	19.68	0.32	19.65	0.35	0.28
2	0.83	19.75	0.25	19.49	0.51	19.50	0.50	0.42
3	1.25	19.67	0.33	19.24	0.76	19.17	0.83	0.64
4	1.67	19.59	0.41	19.08	0.92	18.93	1.07	0.80
5	2.08	19.50	0.50	18.91	1.09	18.66	1.34	0.98
6	2.50	19.40	0.60	18.60	1.40	18.42	1.58	1.19

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	19.40	0.60	18.60	1.40	18.42	1.58	1.19
2	1.25	19.45	0.55	18.75	1.25	18.46	1.54	1.11
3	0.625	19.51	0.49	18.91	1.09	18.53	1.47	1.02
4	0.01	19.75	0.25	19.28	0.72	18.87	1.13	0.70

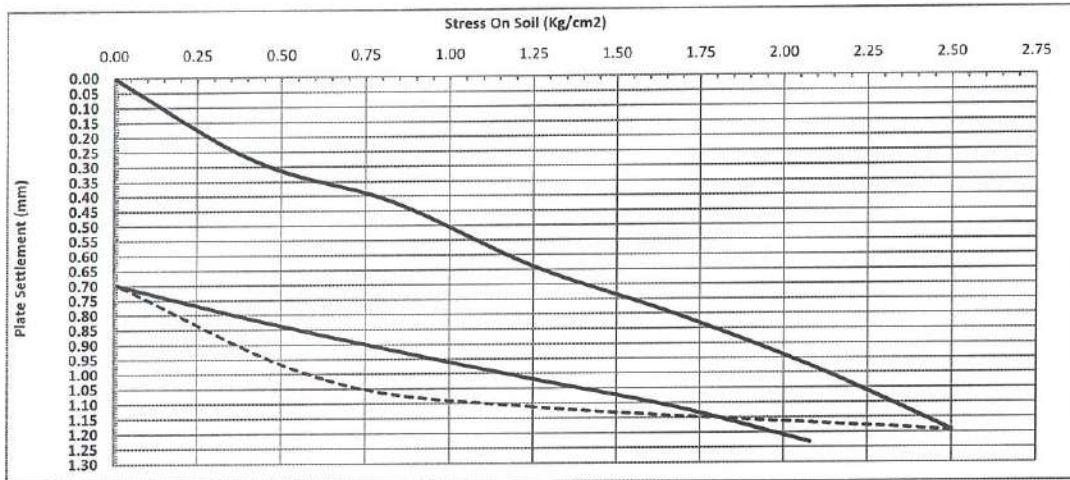
Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.68	0.32	19.14	0.86	18.73	1.27	0.82
1	0.83	19.60	0.40	19.04	0.96	18.60	1.40	0.92
2	1.25	19.53	0.47	18.93	1.07	18.48	1.52	1.02
3	1.67	19.45	0.55	18.82	1.18	18.39	1.61	1.11
4	2.08	19.38	0.62	18.64	1.36	18.28	1.72	1.23



Company Name : Sidi Abd El Rhman for Construction.
 Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
 Test Date : 016
 report date : 06/12/2023
 Location : Station 432+650 to 432+675
 Test No. : 015

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm ²)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.28	0.42	0.64	0.80	0.98	1.19

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm ²)	2.50	1.25	0.625	0.01
Settlement (mm)	1.19	1.11	1.02	0.70

D (mm) =	600	S1 (mm)=	0.39	S2(mm)=	0.83	ΔS =	0.44
Ev1 (MPa) =	(0.75*D*Δσ)/ΔS		100				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm ²)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.70	0.82	0.92	1.02	1.11	1.23

Ev2/Ev1 =	1.9
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D (mm) =	600	S1 (mm)=	0.90	S2(mm)=	1.14	ΔS =	0.24
Ev2 (MPa) =	(0.75*D*Δσ)/ΔS		186				

Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

Δσ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+675 to 432+700
Test No. : 016

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.76	0.24	19.83	0.17	19.69	0.31	0.24
2	0.83	19.61	0.39	19.70	0.30	19.57	0.43	0.37
3	1.25	19.44	0.56	19.53	0.47	19.42	0.58	0.54
4	1.67	19.30	0.70	19.40	0.60	19.28	0.72	0.67
5	2.08	19.16	0.84	19.21	0.79	19.15	0.85	0.83
6	2.50	19.00	1.00	19.05	0.95	18.97	1.03	0.99

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	19.00	1.00	19.05	0.95	18.97	1.03	0.99
2	1.25	19.06	0.94	19.12	0.88	19.04	0.96	0.93
3	0.625	19.12	0.88	19.18	0.82	19.11	0.89	0.86
4	0.01	19.36	0.64	19.45	0.55	19.32	0.68	0.62

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.28	0.72	19.37	0.63	19.23	0.77	0.71
1	0.83	19.19	0.81	19.30	0.70	19.15	0.85	0.79
2	1.25	19.10	0.90	19.21	0.79	19.08	0.92	0.87
3	1.67	19.02	0.98	19.13	0.87	19.00	1.00	0.95
4	2.08	18.91	1.09	19.02	0.98	18.87	1.13	1.07



Company Name : Sidi Abd El Rhman for Construction.
 Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
 Test Date : 16/04/2023
 report date : 06/12/2023
 Location : Station 432+675 to 432+700
 Test No. : 016

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm ²)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.24	0.37	0.54	0.67	0.83	0.99

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm ²)	2.50	1.25	0.625	0.01
Settlement (mm)	0.99	0.93	0.86	0.62

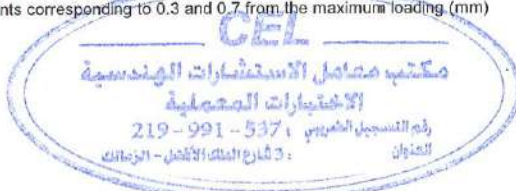
D (mm) =	600	S1 (mm)=	0.35	S2(mm)=	0.70	ΔS =	0.36
Ev1 (MPa) =	(0.75*D*Δσ)/ΔS		124				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm ²)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.62	0.71	0.79	0.87	0.95	1.07

Ev2/Ev1 =	1.8
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D (mm) =	600	S1 (mm)=	0.77	S2(mm)=	0.97	ΔS =	0.20
Ev2 (MPa) =	(0.75*D*Δσ)/ΔS		219				

Ev1 = Modulus of deformation during the loading stage.
 Ev2 = Modulus of deformation during the Reloading stage.
 D = Plate diameter (mm)
 Δσ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)
 Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+700 to 432+725
Test No. : 017

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.80	0.20	19.83	0.17	19.68	0.32	0.23
2	0.83	19.65	0.35	19.60	0.40	19.40	0.60	0.45
3	1.25	19.52	0.48	19.41	0.59	19.15	0.85	0.64
4	1.67	19.26	0.74	19.18	0.82	18.90	1.10	0.89
5	2.08	19.14	0.86	18.85	1.15	18.64	1.36	1.12
6	2.50	18.96	1.04	18.56	1.44	18.45	1.55	1.34

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	18.96	1.04	18.56	1.44	18.45	1.55	1.34
2	1.25	19.01	0.99	18.63	1.37	18.53	1.47	1.28
3	0.625	19.07	0.93	18.71	1.29	18.66	1.34	1.19
4	0.01	19.30	0.70	19.00	1.00	18.98	1.02	0.91

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.21	0.79	18.93	1.07	18.89	1.11	0.99
1	0.83	19.15	0.85	18.80	1.20	18.80	1.20	1.08
2	1.25	19.04	0.96	18.74	1.26	18.68	1.32	1.18
3	1.67	18.96	1.04	18.58	1.42	18.56	1.44	1.30
4	2.08	18.88	1.12	18.50	1.50	18.45	1.55	1.39

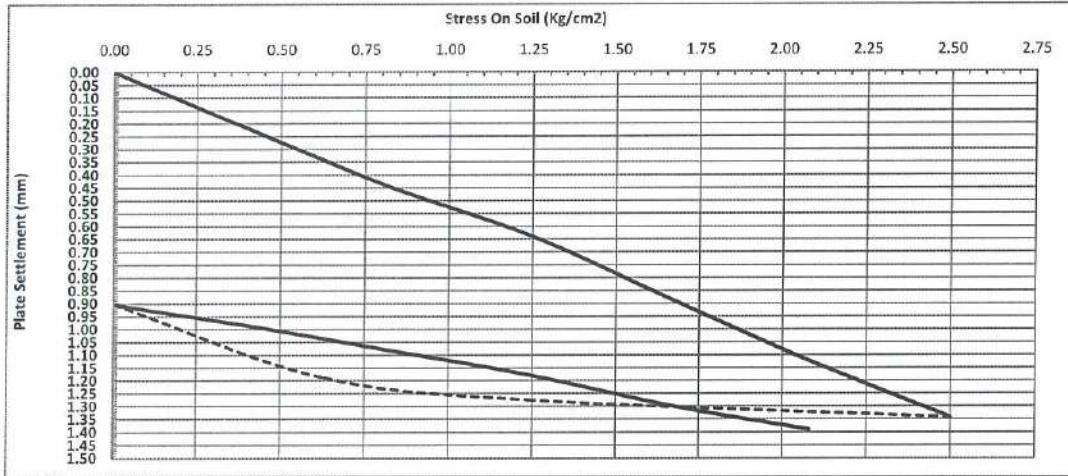


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Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+700 to 432+725
Test No. : 017

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm2)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.23	0.45	0.64	0.89	1.12	1.34

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm2)	2.50	1.25	0.625	0.01
Settlement (mm)	1.34	1.28	1.19	0.91

D (mm) =	600	S1 (mm)=	0.41	S2(mm)=	0.93	ΔS =	0.53
Ev1 (MPa) =	(0.75*D*Δσ)/ΔS		84				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm2)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.91	0.99	1.08	1.18	1.30	1.39

Ev2/Ev1 =	2.1
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D (mm) =	600	S1 (mm)=	1.07	S2(mm)=	1.32	ΔS =	0.25
Ev2 (MPa) =	(0.75*D*Δσ)/ΔS		175				

Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

Δσ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+725 to 432+750
Test No. : 018

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.74	0.26	19.85	0.15	19.72	0.28	0.23
2	0.83	19.60	0.40	19.72	0.28	19.50	0.50	0.39
3	1.25	19.46	0.54	19.55	0.45	19.32	0.68	0.56
4	1.67	19.31	0.69	19.40	0.60	19.18	0.82	0.70
5	2.08	19.14	0.86	19.22	0.78	19.00	1.00	0.88
6	2.50	18.95	1.05	19.01	0.99	18.83	1.17	1.07

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	18.95	1.05	19.01	0.99	18.83	1.17	1.07
2	1.25	18.99	1.01	19.07	0.93	18.88	1.12	1.02
3	0.625	19.05	0.95	19.15	0.85	18.93	1.07	0.96
4	0.01	19.34	0.66	19.42	0.58	19.25	0.75	0.66

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.27	0.73	19.33	0.67	19.17	0.83	0.74
1	0.83	19.20	0.80	19.24	0.76	19.09	0.91	0.82
2	1.25	19.13	0.87	19.14	0.86	18.99	1.01	0.91
3	1.67	19.04	0.96	19.07	0.93	18.90	1.10	1.00
4	2.08	18.93	1.07	18.98	1.02	18.80	1.20	1.10



Company Name : Sidi Abd El Rhman for Construction.
 Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
 Test Date : 16/04/2023
 report date : 06/12/2023
 Location : Station 432+725 to 432+750
 Test No. : 018

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm2)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.23	0.39	0.56	0.70	0.88	1.07

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm2)	2.50	1.25	0.625	0.01
Settlement (mm)	1.07	1.02	0.96	0.66

D (mm) =	600	S1 (mm)=	0.36	S2(mm)=	0.74	ΔS =	0.38
Ev1 (MPa) =	(0.75*D*Δσ)/ΔS		117				

Ev2/Ev1 =	1.8
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Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm2)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.66	0.74	0.82	0.91	1.00	1.10

D (mm) =	600	S1 (mm)=	0.81	S2(mm)=	1.02	ΔS =	0.21
Ev2 (MPa) =	(0.75*D*Δσ)/ΔS		212				

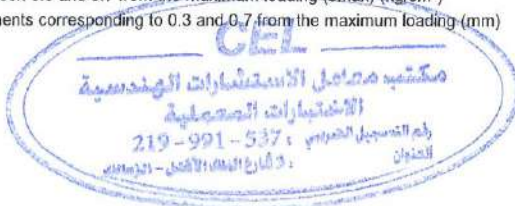
Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

Δσ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



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Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+750 to 432+775
Test No. : 019

Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.80	0.20	19.76	0.24	19.83	0.17	0.20
2	0.83	19.65	0.35	19.60	0.40	19.70	0.30	0.35
3	1.25	19.51	0.49	19.38	0.62	19.54	0.46	0.52
4	1.67	19.35	0.65	19.21	0.79	19.36	0.64	0.69
5	2.08	19.20	0.80	19.04	0.96	19.20	0.80	0.85
6	2.50	19.01	0.99	18.90	1.10	19.00	1.00	1.03

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	19.01	0.99	18.90	1.10	19.00	1.00	1.03
2	1.25	19.08	0.92	18.95	1.05	19.06	0.94	0.97
3	0.625	19.14	0.86	19.02	0.98	19.12	0.88	0.91
4	0.01	19.46	0.54	19.23	0.77	19.40	0.60	0.64

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.39	0.61	19.18	0.82	19.31	0.69	0.71
1	0.83	19.30	0.70	19.10	0.90	19.22	0.78	0.79
2	1.25	19.22	0.78	19.01	0.99	19.13	0.87	0.88
3	1.67	19.11	0.89	18.92	1.08	19.05	0.95	0.97
4	2.08	19.01	0.99	18.84	1.16	18.92	1.08	1.08

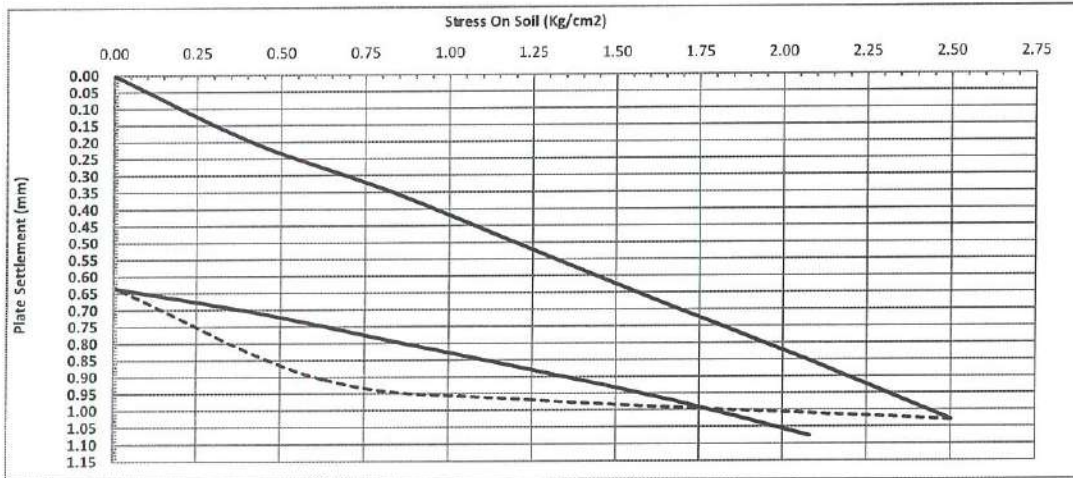


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Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+750 to 432+775
Test No. : 019

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm ²)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.20	0.35	0.52	0.69	0.85	1.03

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm ²)	2.50	1.25	0.625	0.01
Settlement (mm)	1.03	0.97	0.91	0.64

D (mm) =	600	S1 (mm)=	0.32	S2(mm)=	0.72	ΔS =	0.40
Ev1 (MPa) =	(0.75*D*Δσ)/ΔS		109				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm ²)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.64	0.71	0.79	0.88	0.97	1.08

Ev2/Ev1 =	1.9
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D (mm) =	600	S1 (mm)=	0.78	S2(mm)=	0.99	ΔS =	0.22
Ev2 (MPa) =	(0.75*D*Δσ)/ΔS		204				

Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

Δσ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+775 to 432+800
Test No. : 020

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.75	0.25	19.68	0.32	19.82	0.18	0.25
2	0.83	19.61	0.39	19.41	0.59	19.70	0.30	0.43
3	1.25	19.44	0.56	19.20	0.80	19.53	0.47	0.61
4	1.67	19.32	0.68	19.01	0.99	19.34	0.66	0.78
5	2.08	19.15	0.85	18.83	1.17	19.18	0.82	0.95
6	2.50	18.94	1.06	18.61	1.39	18.97	1.03	1.16

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	18.94	1.06	18.61	1.39	18.97	1.03	1.16
2	1.25	19.01	0.99	18.67	1.33	19.04	0.96	1.09
3	0.625	19.10	0.90	18.75	1.25	19.13	0.87	1.01
4	0.01	19.33	0.67	19.15	0.85	19.37	0.63	0.72

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.25	0.75	19.07	0.93	19.30	0.70	0.79
1	0.83	19.19	0.81	18.98	1.02	19.22	0.78	0.87
2	1.25	19.10	0.90	18.90	1.10	19.13	0.87	0.96
3	1.67	19.01	0.99	18.81	1.19	19.07	0.93	1.04
4	2.08	18.92	1.08	18.70	1.30	18.96	1.04	1.14

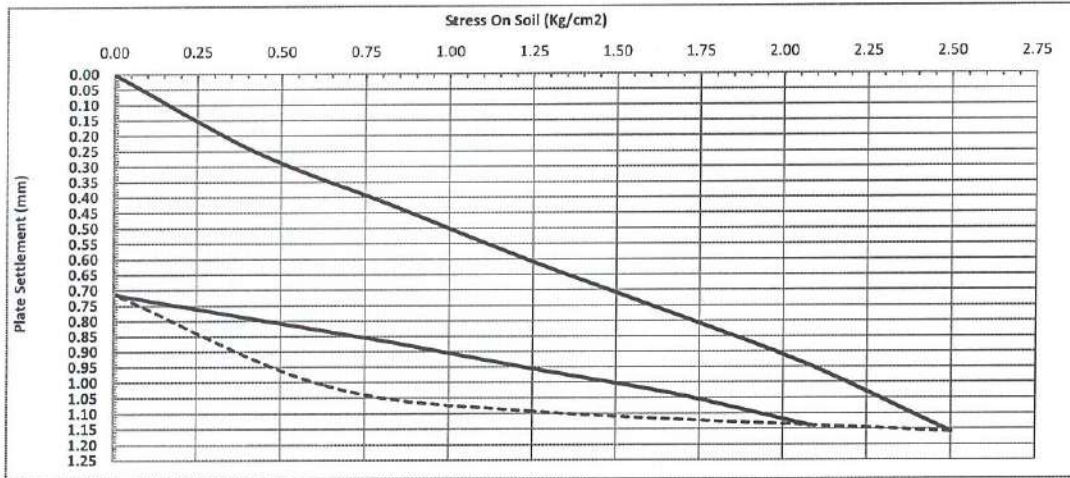


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Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+775 to 432+800
Test No. : 020

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm ²)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.25	0.43	0.61	0.78	0.95	1.16

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm ²)	2.50	1.25	0.625	0.01
Settlement (mm)	1.16	1.09	1.01	0.72

D (mm) =	600	S1 (mm)=	0.39	S2(mm)=	0.81	ΔS =	0.42
Ev1 (MPa) =	(0.75*D*Δσ)/ΔS		106				

Ev2/Ev1 =	2.1
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Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm ²)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.72	0.79	0.87	0.96	1.04	1.14

D (mm) =	600	S1 (mm)=	0.86	S2(mm)=	1.06	ΔS =	0.20
Ev2 (MPa) =	(0.75*D*Δσ)/ΔS		219				

Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

Δσ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



Company Name : Sidi Abd El Rhman for Construction.
 Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
 Test Date : 16/04/2023
 report date : 06/12/2023
 Location : Station 432+800 to 432+825
 Test No. : 021

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.78	0.22	19.65	0.35	19.81	0.19	0.25
2	0.83	19.63	0.37	19.43	0.57	19.64	0.36	0.43
3	1.25	19.48	0.52	19.23	0.77	19.38	0.62	0.64
4	1.67	19.25	0.75	19.05	0.95	19.19	0.81	0.84
5	2.08	19.08	0.92	18.87	1.13	19.00	1.00	1.02
6	2.50	18.88	1.12	18.60	1.40	18.85	1.15	1.22

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	18.88	1.12	18.60	1.40	18.85	1.15	1.22
2	1.25	18.93	1.07	18.66	1.34	18.91	1.09	1.17
3	0.625	19.01	0.99	18.71	1.29	18.99	1.01	1.10
4	0.01	19.26	0.74	19.14	0.86	19.31	0.69	0.76

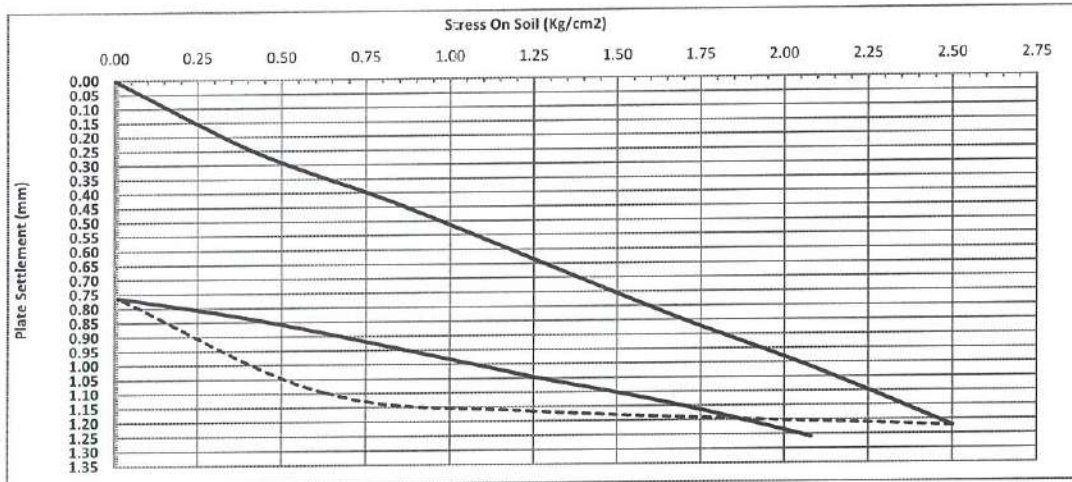
Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.20	0.80	19.06	0.94	19.22	0.78	0.84
1	0.83	19.14	0.86	18.93	1.07	19.11	0.89	0.94
2	1.25	19.05	0.95	18.81	1.19	19.00	1.00	1.05
3	1.67	18.94	1.06	18.72	1.28	18.91	1.09	1.14
4	2.08	18.83	1.17	18.61	1.39	18.78	1.22	1.26



Company Name : Sidi Abd El Rhman for Construction.
 Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
 Test Date : 16/04/2023
 report date : 06/12/2023
 Location : Station 432+800 to 432+825
 Test No. : 021

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm2)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.25	0.43	0.64	0.84	1.02	1.22

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm2)	2.50	1.25	0.625	0.01
Settlement (mm)	1.22	1.17	1.10	0.76

D (mm) = 600	S1 (mm) = 0.40	S2(mm) = 0.87	ΔS = 0.47
Ev1 (MPa) = $(0.75 \cdot D \cdot \Delta\sigma) / \Delta S$	93		

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm2)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.76	0.84	0.94	1.05	1.14	1.26

Ev2/Ev1 =	1.9
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D (mm) = 600	S1 (mm) = 0.92	S2(mm) = 1.17	ΔS = 0.25
Ev2 (MPa) = $(0.75 \cdot D \cdot \Delta\sigma) / \Delta S$	180		

Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

$\Delta\sigma$ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+825 to 432+850
Test No. : 022

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.82	0.18	19.73	0.27	19.69	0.31	0.25
2	0.83	19.69	0.31	19.60	0.40	19.50	0.50	0.40
3	1.25	19.54	0.46	19.46	0.54	19.33	0.67	0.56
4	1.67	19.36	0.64	19.27	0.73	19.17	0.83	0.73
5	2.08	19.18	0.82	19.15	0.85	18.98	1.02	0.90
6	2.50	19.01	0.99	18.96	1.04	18.80	1.20	1.08

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	19.01	0.99	18.96	1.04	18.80	1.20	1.08
2	1.25	19.07	0.93	19.02	0.98	18.85	1.15	1.02
3	0.625	19.14	0.86	19.10	0.90	18.92	1.08	0.95
4	0.01	19.35	0.65	19.32	0.68	19.24	0.76	0.70

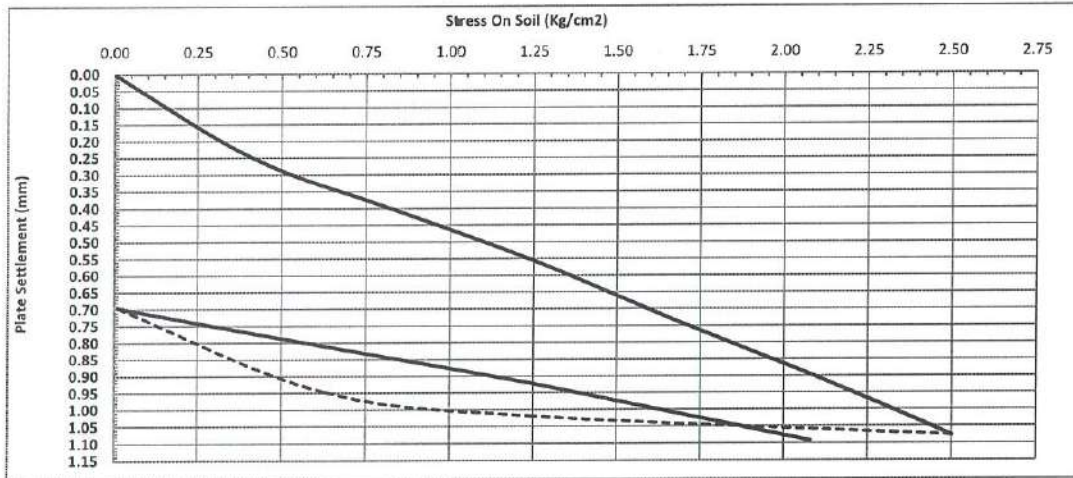
Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.28	0.72	19.25	0.75	19.15	0.85	0.77
1	0.83	19.21	0.79	19.18	0.82	19.07	0.93	0.85
2	1.25	19.14	0.86	19.10	0.90	18.99	1.01	0.92
3	1.67	19.06	0.94	19.01	0.99	18.90	1.10	1.01
4	2.08	18.97	1.03	18.93	1.07	18.82	1.18	1.09



Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+825 to 432+850
Test No. : 022

**Nonrepetitive Static Plate Load Tests of Soils
DIN 18134**



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm2)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.25	0.40	0.56	0.73	0.90	1.08

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm2)	2.50	1.25	0.625	0.01
Settlement (mm)	1.08	1.02	0.95	0.70

D (mm) =	600	S1 (mm)=	0.37	S2(mm)=	0.77	ΔS =	0.39
Ev1 (MPa) =	(0.75*D*Δσ)/ΔS		113				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm2)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.70	0.77	0.85	0.92	1.01	1.09

Ev2/Ev1 =	2.0
-----------	-----

D (mm) =	600	S1 (mm)=	0.83	S2(mm)=	1.03	ΔS =	0.19
Ev2 (MPa) =	(0.75*D*Δσ)/ΔS		228				

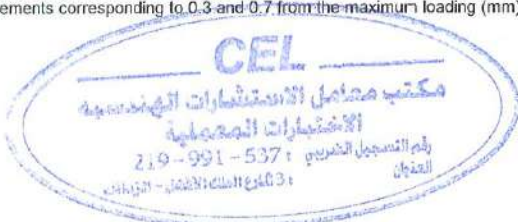
Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

Δσ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



Company Name : Sidi Abd El Rhman for Construction.
 Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
 Test Date : 16/04/2023
 report date : 06/12/2023
 Location : Station 432+850 to 432+875
 Test No. : 023

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.81	0.19	19.75	0.25	19.80	0.20	0.21
2	0.83	19.64	0.36	19.51	0.49	19.55	0.45	0.43
3	1.25	19.50	0.50	19.33	0.67	19.37	0.63	0.60
4	1.67	19.39	0.61	19.17	0.83	19.23	0.77	0.74
5	2.08	19.29	0.71	19.02	0.98	19.05	0.95	0.88
6	2.50	19.22	0.78	18.89	1.11	18.88	1.12	1.00

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	19.22	0.78	18.89	1.11	18.88	1.12	1.00
2	1.25	19.24	0.76	18.99	1.01	18.96	1.04	0.94
3	0.625	19.32	0.68	19.13	0.87	19.07	0.93	0.83
4	0.01	19.55	0.45	19.46	0.54	19.35	0.65	0.55

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	19.49	0.51	19.34	0.66	19.27	0.73	0.63
1	0.83	19.40	0.60	19.21	0.79	19.16	0.84	0.74
2	1.25	19.34	0.66	19.09	0.91	19.05	0.95	0.84
3	1.67	19.29	0.71	19.00	1.00	18.97	1.03	0.91
4	2.08	19.24	0.76	18.92	1.08	18.89	1.11	0.98

Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+875 to 433+000
Test No. : 024

Nonrepetitive Static Plate Load Tests of Soils
DIN 18134

Data sheet

Loading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.42	19.65	0.35	19.69	0.31	19.81	0.19	0.28
2	0.83	19.36	0.64	19.43	0.57	19.55	0.45	0.55
3	1.25	19.14	0.86	19.21	0.79	19.36	0.64	0.76
4	1.67	18.95	1.05	19.01	0.99	19.17	0.83	0.96
5	2.08	18.79	1.21	18.84	1.16	19.02	0.98	1.12
6	2.50	18.67	1.33	18.68	1.32	18.89	1.11	1.25

Unloading Stage (1)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
1	2.50	18.67	1.33	18.68	1.32	18.89	1.11	1.25
2	1.25	18.71	1.29	18.79	1.21	18.96	1.04	1.18
3	0.625	18.81	1.19	18.94	1.06	19.08	0.92	1.06
4	0.01	19.14	0.86	19.27	0.73	19.33	0.67	0.75

Loading Stage (2)

Loading	Stress Kg/cm2	Dial 1	Settlement mm	Dial 2	Settlement mm	Dial 3	Settlement mm	Average
0	0.42	18.97	1.03	19.10	0.90	19.24	0.76	0.90
1	0.83	18.85	1.15	18.97	1.03	19.13	0.87	1.02
2	1.25	18.77	1.23	18.87	1.13	19.05	0.95	1.10
3	1.67	18.70	1.30	18.78	1.22	18.95	1.05	1.19
4	2.08	18.64	1.36	18.69	1.31	18.87	1.13	1.27

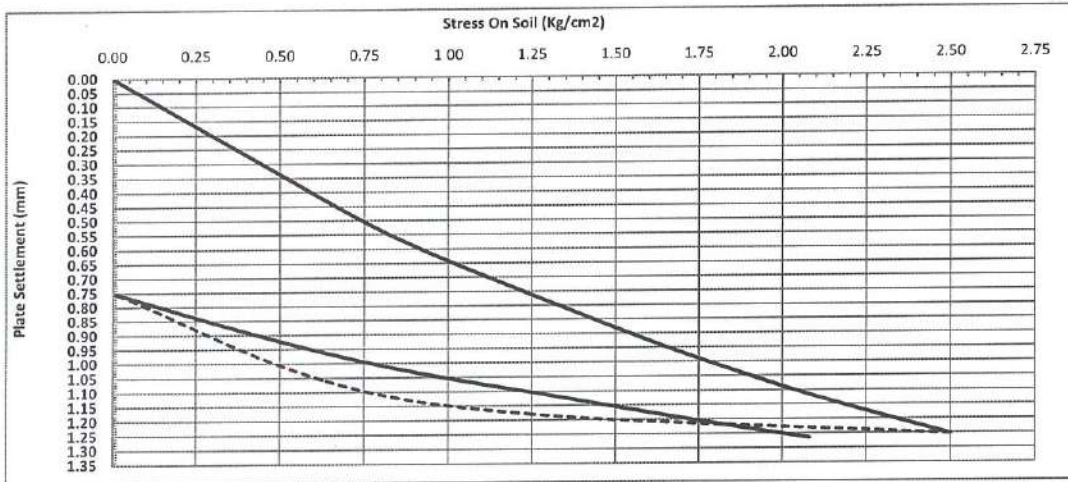


CEL

Consulting Engineering Bureau & Laboratories
مكتب معامل الاستشارات الهندسية

Company Name : Sidi Abd El Rhman for Construction.
Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (6) - Alamein to Foka
Test Date : 16/04/2023
report date : 06/12/2023
Location : Station 432+875 to 433+000
Test No. : 024

Nonrepetitive Static Plate Load Tests of Soils DIN 18134



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1	7065
Stress (Kg/cm ²)	0.00	0.42	0.83	1.25	1.67	2.08	2.50
Settlement (mm)	0.00	0.28	0.55	0.76	0.96	1.12	1.25

UnLoading (1)	1	2	3	4
Stage(Kg)	7065	3533	1768	0
Stress (Kg/cm ²)	2.50	1.25	0.625	0.01
Settlement (mm)	1.25	1.18	1.06	0.75

D (mm) =	600	S1 (mm)=	0.50	S2(mm)=	0.99	ΔS =	0.49
Ev1 (MPa) =	(0.75*D*Δσ)/ΔS		91				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	1186.92	2345.6	3532.5	4719.4	5878.1
Stress (Kg/cm ²)	0.01	0.42	0.83	1.25	1.67	2.08
Settlement (mm)	0.75	0.90	1.02	1.10	1.19	1.27

Ev2/Ev1 =	2.3
-----------	-----

D (mm) =	600	S1 (mm)=	0.99	S2(mm)=	1.20	ΔS =	0.21
Ev2 (MPa) =	(0.75*D*Δσ)/ΔS		208				

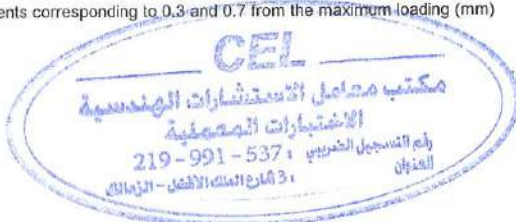
Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

Δσ = The difference between 0.3 and 0.7 from the maximum loading (smax) (kg/cm²)

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the maximum loading (mm)



Company Name :
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : st (432 + 600) : st (434 + 600)
Delivery Date : 01/01/2023
Reporting Date : 06/01/2023
Reporting No. : 01
Sample No. : 01

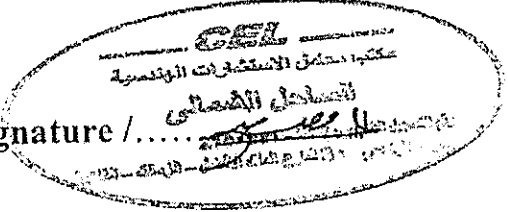
Dear Gentleman,

Attached here with the Prepared Subgrade delivered on 01/01/2023

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according ASTM D-1140.
3. Liquid limits and plasticity index of soil according to D-4318.
4. Proctor Test according to D-1557
5. CBR according to ASTM D-1883
6. Los Anglos according to ASTM C-131.

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

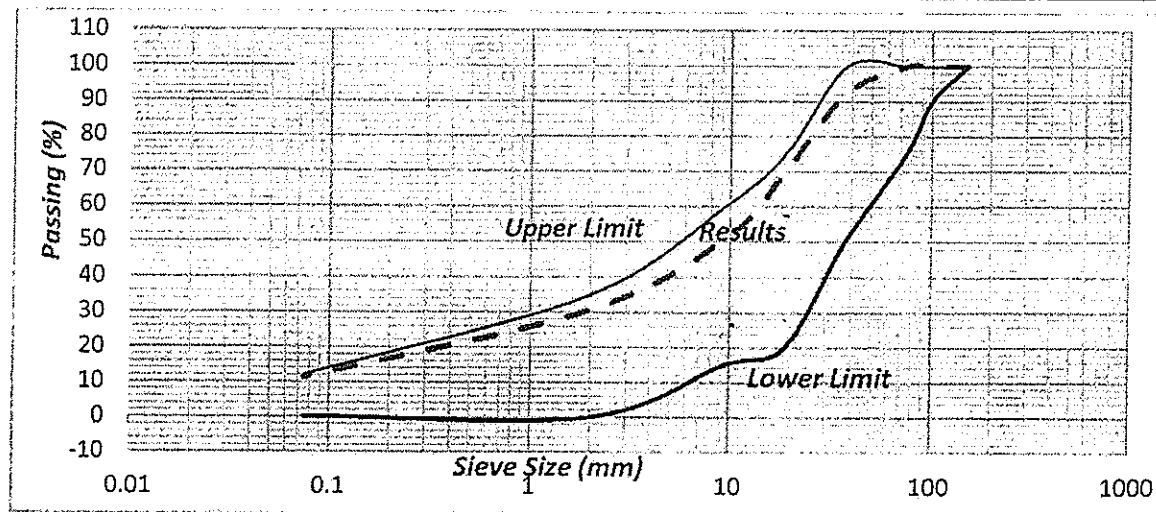


٣ ش الملك الأفضل
الزمالك - القاهرة
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www.cel-egypt.com

Company Name : سيدى عبدالرحمن
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : st (432 + 600) : st (434 + 600)
Delivery Date : 01/01/2023
Reporting Date : 06/01/2023
Reporting No. : 01
Sample No. : 01

Results of sieve analysis according to ASTM D-422.

Sieve Size (mm)	Passing %	Job specification limits (ASTM D-422)	
		Min.	Max.
125	100	100	100
100	100	90	100
75	100	75	100
50	100	--	--
37.5	92.4	50	100
25	80.5	--	100
19	70.1	20	75
12.5	61.7	--	--
9.5	50.8	15	60
4.75	39.2	--	--
2.00	30.7	0	35
0.425	21.4	0	--
0.075	11.2	0	12



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

Signature /.....

Company Name : سيدى عبدالرحمن

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

Type of sample : Prepared Subgrade

Location : st (432 + 600) : st (434 + 600)

Delivery Date : 01/01/2023

Reporting Date : 06/01/2023

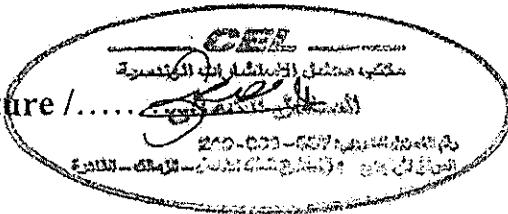
Reporting No. : 01

Sample No. : 01

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ M (No.200)	11.2

Signature /

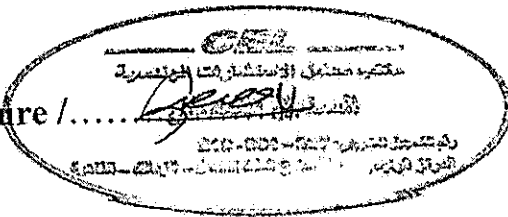


Company Name : سيدى عبدالرحمن
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : st (432 + 600) : st (434 + 600)
Delivery Date : 01/01/2023
Reporting Date : 06/01/2023
Reporting No. : 01
Sample No. : 01

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

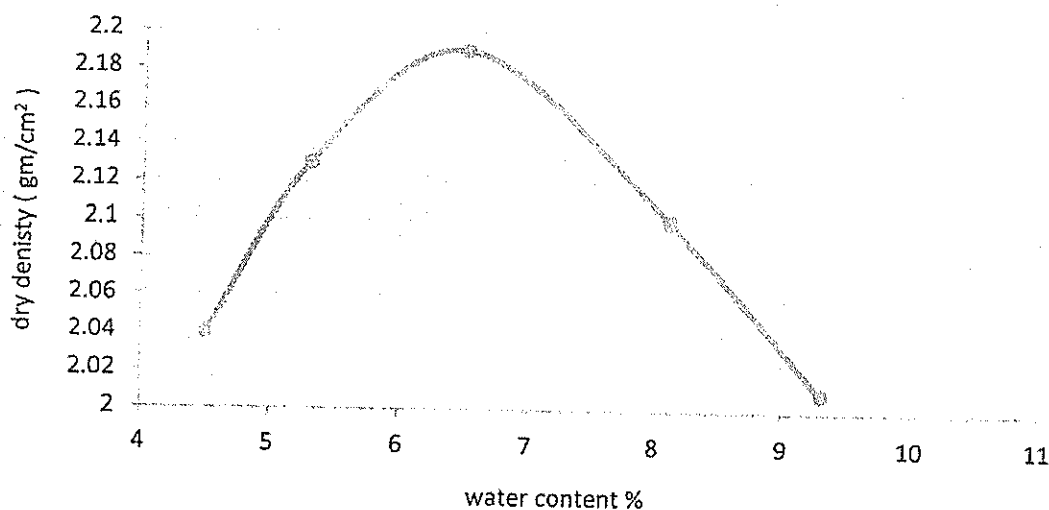
Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

Signature /.....



Company Name : سيدى عبدالرحمن
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : st (432 + 600) : st (434 + 600)
Delivery Date : 01/01/2023
Reporting Date : 06/01/2023
Reporting No. : 01
Sample No. : 01

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



- Max dry density (gm/cm²) : 2.20
- Optimum moisture content % : 6.2

Signature /

مكتبة مهندس الاستشارات والهندسة
الهندسة المدنية والكهربائية
د. محمد عبد الله محمد
المحلل القياسي : ٢٧٣٦٢٣١ - ٢٧٣٦٢٣٠

Company Name : سيدى عبدالرحمن
 Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
 Type of sample : Prepared Subgrade
 Location : st (432 + 600) : st (434 + 600)
 Delivery Date : 01/01/2023
 Reporting Date : 06/01/2023
 Reporting No. : 01
 Sample No. : 01

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

penetration		stress on piston (Mpa)
mm	Inch	
0.64	0.025	3.20
1.27	0.050	3.80
1.91	0.075	4.51
2.54	0.100	5.15
3.18	0.125	5.58
3.81	0.150	5.98
4.45	0.175	6.44
5.08	0.200	6.90
5.71	0.225	7.28
6.35	0.250	7.61

CBR Result	Stress (Mpa)		CBR %
At 0.1 inch (2.54 mm) penetration	St. Value	Sample results	74.6
	6.90	5.15	

Notes :

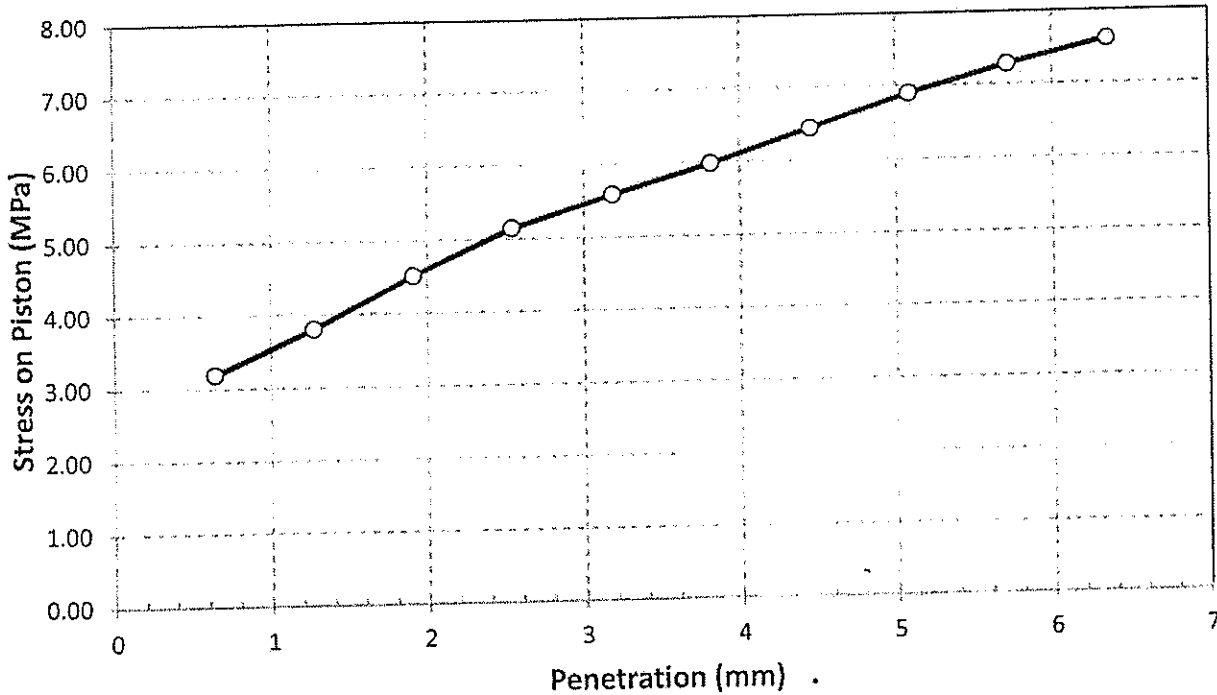
- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of 2.20 (gm /cm³) at 6.2 % optimum water content.
- 3- Surcharge load 450 Kg

Signature /

مكتب معامل الاستشارات الهندسية
 رقم الترخيص: 001-007
 شارع النجاشي : 33
 القاهرة - 11511

Company Name : سيدي عبدالرحمن
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : st (432 + 600) : st (434 + 600)
Delivery Date : 01/01/2023
Reporting Date : 06/01/2023
Reporting No. : 01
Sample No. : 01

Load Penetration Curve of CBR Test
ASTM D-1883



Signature /

مكتب معامل الاستشارات الهندسية
الاستشاري (الهندسة المدنية)
د. محمد عبد الحليم
شارع الملك الأفضل - القاهرة - ١١٥١١١١١
٢٠٢٣ - ٢٠٢٤

Company Name : سيدى عبدالرحمن
 Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
 Type of sample : Prepared Subgrade
 Location : st (432 + 600) : st (434 + 600)
 Delivery Date : 01/01/2023
 Reporting Date : 06/01/2023
 Reporting No. : 01
 Sample No. : 01

Resistance to Degradation of Large-Size Coarse Aggregate
by Abrasion and Impact in the Los Angeles Machine
ASTM C 535

TEST	Results
Amount of loss abrasion and impact (%) Coarse aggregate	23.1

- According to project specs :

The Amount of loss abrasion and impact for moderate weathering :

- Shall not exceed 40% (when subjected to 500 revolutions)

The test results are (☒ Comply ☐ Not Comply) with specifications limits.

Signature /

