

ائمة الكميات الواردة بالمستخلص جاري (3)

عملية : مشروع استكمال أعمال تنفيذ الجسر الترابي بمشروع إنشاء الخط الأول لشبكة القطار الكهربائي السريع (السخنة - القاهرة -
إسكندرية - العلمين - مطروح) بالأمر المباشر لتنفيذ المسافة القطاع من الكم 510+000 إلي الكم 511+500 بطول 1.5 كم اتجاه مطروح

رقم البند و بيانه : (3-1) أعمال توريد و تشغيل اترية صالحة للردم مطابقة للمواصفات

تنفيذ : شركة الحياة للمقاولات العامة وأعمال المحاجر

0.0 3م

مقدار العمل السابق :

الكمية	الابعاد (متر)		الموقع الكيلومتری		بيان الاعمال بالمقايضة
	مساحة المقطع	طول	الى	من	
11715.00	19.525	600	511+100	510+500	القطاع الأول
11725.00	29.313	400	511+500	511+100	القطاع الثاني
23440.00	اجمالي الكميات خلال فترة المستخلص الحالية (م ³)				
23440.00	الاجمالي الكلي (م ³)				

مهندس الهيئة العامة
للطرق والكباري
م / إبراهيم الحناوي

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الشركة
م / فوزي عيسى
18/12

قائمة كميات بالمستخلص جارى (3)

مشروع استكمال أعمال تنفيذ الجسر الترابي بمشروع إنشاء الخط الأول لشبكة القطار الكهربائي السريع (السخنة - القاهرة - الإسكندرية - العلمين - مطروح) بالأمر المباشر لتنفيذ المسافة القطاع من الكم 510+000 إلي الكم 511+500 بطول 1.5 كم اتجاه مطروح

رقم البند و بيانه : (3-1) علاوة تحصيل رسوم الكارثة والموازين طبقا للائحة الشركة الوطنية

الكارثات والموازين

تنفيذ : شركة الحياة للمقاولات العامة وأعمال المحاجر

3م

0

مقدار العمل السابق :

الكمية	بيان بالكميات
23440.00	الكمية طبقاً لقوائم الكميات
23440.00	اجمالي الكميات خلال فترة المستخلص الحالية (3م)
23440.00	الاجمالي الكلي (م ³)

مهندس الهيئة العامة
للطرق والكباري
م / إبراهيم الحناوي

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

٢٠٢١/١٢/١٨

مهندس الإستشاري (xyz)
م / محمد خليل

محمد خليل

مهندس الشركة

م / فوزي عيسى
١٨/١٢/٢٠٢١

قائمة كميات بالمستخلص جارى (3)

مشروع استكمال أعمال تنفيذ الجسر الترابي بمشروع إنشاء الخط الأول لشبكة القطار الكهربائى السريع (السخنة - القاهرة - الإسكندرية - العلمين - مطروح) بالأمر المباشر لتنفيذ المسافة القطاع من الكم 510+000 إلى الكم 511+500 بطول 1.5 كم اتجاه مطروح

رقم البند و بيانه : (3-1) علاوة تحصيل رسوم الكارثة والموازن طبقا للائحة الشركة الوطنية 288.5 كم

علاوة مسافة النقل

تنفيذ : شركة الحياة للمقاولات العامة وأعمال المحاجر

م3

0.00

مقدار العمل السابق :

الكمية	بيان بالكميات
23440.00	الكمية طبقاً لقوائم الكميات
23440.00	اجمالي الكميات خلال فترة المستخلص الحالية (م3)
23440.00	الاجمالي الكلي (م3)

مهندس الهيئة العامة
للطرق والكباري
م / إبراهيم الحناوي

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الشركة

م / محمد عبد الله



المنطقة الخامسة - (غرب الدلتا)

السيد المهندس / رئيس قطاع التنفيذ والمناطق

تحية طيبة وبعد،،،،

بالإحالة إلى مشروع القطار الكهربائي فائق السرعة (فوكة - مطروح) (القطاع السابع)

نتشرف بأن نرفق لسيادتكم طيه المقايضة المعدلة للقطاعات الآتية:

مسلسل	اسم الشركة	بداية القطاع (كم)	نهاية القطاع (كم)	اتجاه
1	الحياة للمقاولات العامة وأعمال المحاجر	510+000	511+500	مطروح

برجاء من سيادتكم التفضل بالإحاطة والتوجيه اللازم

وتفضلوا سيادتكم بقبول فائق الاحترام والتقدير،،،

رئيس الإدارة المركزية

المنطقة الخامسة - غرب الدلتا

عميد مهندس /

" هانى محمد محمود طه "



مشروع القطار الكهربائي السريع
المقايضة المعدلة لبنود الاعمال للقطاع السابع (فوكه - مطروح) - شركة الحياة للمقاولات العامة وأعمال المحاجر
القطاع من المحطة 510+000 إلى المحطة 511+500

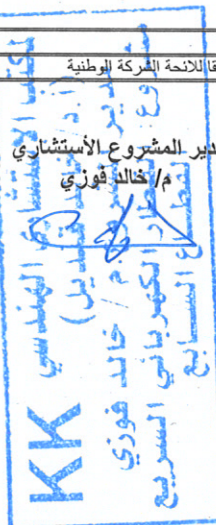
رقم البند	بيان الأعمال	الوحدة	الكمية	الفئة	الإجمالي
1	اعمال الحفر				
1-2	بالمتر المكعب اعمال حفر باستخدام المعدات الميكانيكية في التربة المتماسكة عدا التربة الصخرية (باستخدام البلدوزر) وتسوية السطح بالآلات التسوية والرش بالمياه الاصولية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى أقصى كثافة جافة (95% من الكثافة الجافة القصوى) ومحمل على البند تحميل ونقل الاتربة الزائدة لمسافة 500 متر من محور الطريق ويتم التنفيذ طبقا للمناسيب التصميمية والقطاعات العرضية النموذجية والرسومات التفصيلية المعتمدة والبند بجميع ممتلكاته طبقا لاصول الصناعة ومواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف. يتم احتساب علاوة 1 جنيه لكل 1 كم بالزيادة.	م ³	213,200	20.1	4,285,320
	بالمتر المكعب اعمال حفر بالمعدات الميكانيكية في تربة صخرية	م ³	99,000	54	5,346,000
	ذات إجهاد (100-200) كجم/سم ²	م ³	95,000	65.5	6,222,500
	ذات إجهاد (200-300) كجم/سم ²	م ³	316,000	76	24,016,000
	ذات إجهاد (300-400) كجم/سم ²	م ³			
1-3	و محمل على البند الاتي: 1- تحميل ونقل ناتج الحفر لمسافة لا تقل عن 500 متر 2- توريد اتربة مطابقة للمواصفات وتشغيلها باستخدام الات التسوية بسمك لا يزيد عن 25 سم لاستكمال المنسوب التصميمي لتشكيل الجسر والاكثاف (نسبة تحمل كاليفورنيا لا تقل عن 10 %) ورشها بالمياه الاصولية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى أقصى كثافة جافة (95% من الكثافة الجافة القصوى). ويتم التنفيذ طبقا للمناسيب التصميمية والقطاعات العرضية النموذجية والرسومات التفصيلية المعتمدة والبند بجميع ممتلكاته طبقا لاصول الصناعة ومواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف. وفي حالة زيادة مسافة نقل ناتج الحفر عن 500 متر من محور الطريق يتم حساب 0.8 جنيه لكلومتر زيادة				
3	اعمال الردم				
3-1	بالمتر المكعب اعمال توريد وتشغيل اتربة صالحة للردم و مطابقة للمواصفات والتشغيل باستخدام الات التسوية بسمك لا يزيد عن 50 سم حتي منسوب -2 متر وبسمك لا يزيد عن 25 سم لاستكمال المنسوب التصميمي لتشكيل الجسر والاكثاف (نسبة تحمل كاليفورنيا لا تقل عن 15%) ورشها بالمياه الاصولية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى أقصى كثافة جافة (95% من الكثافة الجافة القصوى) ويتم التنفيذ طبقا للمناسيب التصميمية والقطاعات العرضية النموذجية والرسومات التفصيلية المعتمدة والبند بجميع ممتلكاته طبقا لاصول الصناعة ومواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف. وفي حالة طلب جهاز الإشراف زيادة نسبة الدمك عن 95 % بحسب زيادة 1 جنيه على زيادة نسبة الدمك لكل 1 % - مسافة النقل 2 كم ويتم احتساب علاوة 1.4 جنيه لكل 1 كم بالزيادة أو النقصان - السعر يشمل عمل تشوينات وتخليط واختبارات ونقل لموقع العمل حتي مسافة 2 كم - السعر يشمل قيمة المادة المحجيرة طبقا لأفادة المنطقة بهذا القطاع (7) من الكم 504 إلى 568	م ³	42,490.53	85	3,611,695
	علاوة مسافة النقل 288.5 كم	م ³	42,490.53	401.1	17,042,954
	علاوة تحصيل رسوم الكارثة والموازن طبقا للائحة الشركة الوطنية	م ³	42,490.53	13	552,377

مدير عام المشروعات
م/محمد حسني فياض

مدير المشروع المالك
م/أبراهيم الحناوي

مدير المشروع الاستشاري
م/خالد فوزي

مدير المشروع المقاول





مشروع القطار الكهربائي السريع
المقايضة المعدلة لينود الاعمال للقطاع السابع (فوكه - مطروح) - شركة الحياة للمقاولات العامة وأعمال المحاجر
القطاع من المحطة 510+000 إلى المحطة 511+500

رقم البند	بيان الأعمال	الوحدة	الكمية	الفئة	الإجمالي
4	طبقات الأساس				
4-1	بالمتر المكعب اعمال توريد وفرش طبقة تأسيس (prepared Subgrade) من الاحجار الصلبة المترجة ناتج تكسير الكسارات والمطابقة للمواصفات وأقصى حجم للحبيبات 100 مم والا يزيد نسبة المار من منخل 200 عن 12 % و التدرج الوارد بالاشتراطات الخاصة بالمشروع لا تقل نسبة تحمل كاليفورنيا عن 25 % والا تزيد نسبة الفاقد بجهاز لوس انجلوس عن 30 % والا يزيد الامتصاص عن 15% والا يقل معامل المرونة (Ev2) من تجربة لوح التحميل عن 80 ميجاباسكال ويتم فردها علي طبقتين باستخدام الات التسوية الحديثة علي ان لا يزيد سمك الطبقة بعد تمام الدمك عن 25 سم و رشها بالمياه الاصولية للوصول الي نسبة الرطوبة المطلوبة والدمك الجيد للهراسات للوصول الي أقصى كثافة جافة قصوي (لا تقل عن 95 %) من الكثافة المعملية والفئة تشمل اجراء التجارب المعملية والحقلية ويتم تنفيذ طبقا لاصول الصناعة والرسومات التفصيلية المعتمدة والبند بجميع مشتملاته طبقا للمواصفات الفنية للمشروع وتقرير الاستشاري وتعليمات المهندس المشرف بمسافة النقل لا تقل عن 20 كم - يتم احتساب علاوة 1.2 جنيه لكل 1 كم بالزيادة او النقصان -السعر يشمل قيمة المادة المحجرة طبقا لافادة المنطقة بهذا القطاع (7) من الكم 504 إلى 568	م3	10,010	278	2,782,780
	علاوة مسافة النقل 68 كم			57.6	576,576
	علاوة تحصيل رسوم الكارثة والموازن طبقا للائحة الشركة الوطنية			25	250,250
4-2	بالمتر المكعب اعمال توريد وفرش طبقة أساس من الاحجار الصلبة المترجة ناتج تكسير الكسارات والمطابقة للمواصفات وأقصى حجم للحبيبات ما بين 31.5 مم الي 40 مم والا يزيد نسبة المار من منخل 200 عن 5% والتدرج الوارد بالاشتراطات الخاصة بالمشروع لا تقل نسبة تحمل كاليفورنيا عن 80 % والا يقل معامل المرونة (Ev2) من تجربة لوح التحميل عن 120 ميجاباسكال والا يزيد نسبة الفاقد بجهاز لوس انجلوس عن 30 % والا يزيد الامتصاص عن 15 % ويتم فردها علي طبقتين باستخدام الات التسوية الحديثة علي ان لا يزيد سمك الطبقة بعد تمام الدمك عن 20 سم و رشها بالمياه الاصولية للوصول الي نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الي أقصى كثافة جافة قصوي (لا يقل عن 100%) من الكثافة المعملية والفئة تشمل اجراء التجارب المعملية والحقلية ويتم تنفيذ طبقا لاصول الصناعة والرسومات التفصيلية المعتمدة والبند بجميع مشتملاته طبقا للمواصفات الفنية للمشروع وتقرير الاستشاري وتعليمات المهندس المشرف . -مسافة النقل لا تقل عن 20 كم - يتم احتساب علاوة 1.2 جنيه لكل 1 كم بالزيادة او النقصان -السعر يشمل قيمة المادة المحجرة طبقا لافادة المنطقة بهذا القطاع (7) من الكم 504 إلى 568	م3	8,800	298	2,622,400
	علاوة مسافة النقل 218 كم			237.6	2,090,880
	علاوة تحصيل رسوم الكارثة والموازن طبقا للائحة الشركة الوطنية			25	220,000
5	البلاطات الخرسانية				
5-1	بالمتر المصطح اعمال توريد وصب خرسانة عادية سمك 15 سم لحماية الأكتاف والميول الجانبية تتكون من 0.8 م3 سن دولوميت مترج + 0.4 م3 رمل حرش + 280 كجم أسمنت بورتلاندي عادي واضافة Fiber reinforcement علي أن يكون السن نظيف ومغسول والرمال خالي من الشوائب والطفلة والأملاح والمواد الغريبة والبند يشمل تجهيز واستبدال مناسيب التربة الطبيعية أسفل البلاطة للوصول الي المناسيب التصميمية علي أن تحقق الخرسانة إجهاد لا يقل عن 250 كجم / سم2 وتنشيط السطح والتنفيذ طبقا لاصول الصناعة والرسومات التفصيلية المعتمدة والبند بجميع مشتملاته طبقا لمواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف .	م2	25,000	355	8,875,000
6	اعمال التربة المسلحة				
6-2	بالمتر المصطح توريد وتركيب طبقة من النسيج الصناعي جيوجريد مستورد التداخل لا يقل عن 10% و يتم التنفيذ طبقا لاصول الصناعة والرسومات التفصيلية المعتمدة والبند بجميع مشتملاته طبقا لمواصفات الهيئة العامة للطرق والكباري . ذات قوة شد 30 ك . نيوتن في الاتجاهين Biaxial	م2	764	37	28,268
	الإجمالي				78,523,000

(فقط ثمانية وسبعون مليوناً وخمسمائة وثلاثة وعشرون ألف جنيهها لاغير)

مدير عام المشروعات
م/محمد حسني فياض

مدير المشروع المالك
م/ابراهيم الحناوي

مدير المشروع الاستشاري
م/خالد فوزي

مدير المشروع المقاول

يعتمد
رئيس الإدارة المركزية
منطقة غرب الدلتا
الأسكندرية - مرسى مطروح

عميد مهندس /

"هاني محمد محمود طه"



**السيد العميد المهندس / رئيس الإدارة المركزية لمنطقة
(غرب الدلتا الاسكندرية - مطروح)**

تحية طيبة وبعد،،،،

الموضوع بخصوص : مشروع استكمال أعمال تنفيذ الجسر الترابي بمشروع إنشاء
الخط الأول لشبكة القطار الكهربائي السريع (السخنة - القاهرة - الإسكندرية - العلمين
- مطروح) بالأمر المباشر لتنفيذ المسافة القطاع من الكم ٥١٠+٠٠٠ إلى الكم
٥١١+٥٠٠ بطول ١,٥ كم اتجاه مطروح , عن العقد رقم (٢٠٢٣/٢٠٢٢/١٩٨١) .

تنفيذ : شركة الحياة للمقاولات العامة وأعمال المحاجر .

نحيط سيادتكم بموافقة الشركة على المقايضة المعدلة بنفس شروط ومواصفات
وأسعار العملية الأصلية بالزيادة أو النقصان عن ٢٥٪ وطبقاً لما هو معمول به لدى
هيئتكم الموقرة .

برجاء التكرم بالاحاطه و التوجيه باللازم .

وتفضلوا سيادتكم بقبول فائق الاحترام،،،،

رئيس مجلس إدارة
شركة الحياة للمقاولات العامة وأعمال المحاجر



مدير المشروع

م / منتهى



NEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
إ.د. خالد قنديل



الهيئة العامة
للطرق والكباري

مشروع القطار السريع (فوكة - مطروح)

شركة الحياة للمقاولات العامة وأعمال المحاجر - من المحطة 510+000 إلى المحطة 511+500

محضر تحديد مسافة نقل

(نقل الأتربة)

أنه في يوم السبت الموافق :- 2023/11/4

- بناء على طلب المقاول شركة الحياة للمقاولات العامة وأعمال المحاجر لتحديد مسافة نقل الأتربة من محجر (المصرية)

على طريق وادي النطرون العلمين للمشروع المذكور أعلاه.

تم زيارة المحجر من قبل:-

- 1- السيد المهندس / حسن عبد السلام ياسين مهندس ضبط الجودة الاستشاري مكتب د. خالد قنديل
 - 2- المهندس / توني عربي امام مندوب شركة الحياة للمقاولات العامة وأعمال المحاجر
- وتبين ان المحجر علي مسافة 288.5 كم من منتصف قطاع شركة الحياة للمقاولات العامة وأعمال المحاجر

N 30 ° 33 ' 19.7 " E 29 ° 45 ' 06.7 "

احداثي المحجر

N 31 ° 4 ' 56.57 " E 27 ° 50 ' 56.41 "

احداثي منتصف القطاع

وعلي ذلك تم توقيع،،

2 - توني عربي امام

1 - حسن عبد السلام

MATERIAL APPROVAL REQUEST



Location Name	Contractor Company		Designer Company	
Electric express train	AL- HAYAH Company		k.k	
Issued by Contractor	Name	Sign	Date	Time
	Eng. Ahmed TAWFIK		28-11-2023	
Contractor Reference	HA - (6) - 20-11-2023			
Received by ER		MAR	C1	C2
			DD	MM
			28	11
			YY	HH
			23	
			MM	

NB: Package 1 only (Package 2 via Content)				
The following test result are attached for review				
Description of Materials		Soil (A-1-b)		
Location to be Used		K.P (510+500)		
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	14.72	
4	ASTM D 4318	Atterberg limit	N. PI	
5	ASTM D 2974	Moisture content	6.8 %	
6	ASTM D 1557	Modified proctor	2.18	
7	ASTM D 1883	CBR	54.4%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK	Ahmed Tawfik	28-11-2023	
Contractor QA/QC *	Hassan			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only



Electric Express Train - HSR
From El Ain El Sokhna City To El Atamein - MATROUH
Section - 7 From FOKA To MARSA MATROUH



From Station 504+000 To Station 568+177

Operating lap

Al Tawkei Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	26-11-2023	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (C)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	4000m³	

1-visual inspection test

2-Gradient test

1-gradation of bulk materials				SAMPLE WEIGHT (grr)		34195.00		gm	table classify
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS	soil classify
Mass retained (g)	0.0	0.0	1654.0	2136.0	3645.0	3402.0	4513.0		CLASS
Cumulative Retained (g)	0.0	0.0	1654.0	3790.0	7635.0	11037.0	15550.0	18945.0	PRO
Cumulative Retained %	0.0	0.0	4.8	11.1	22.3	32.3	45.5		WC
Cumulative Passing %	100.0	100.0	95.2	88.9	77.7	67.7	54.5		CBR
									CORR_PRO
2-soft material gradation				WT.OF sample		500.00		gm	CORR_WC
sieve size	#10	#40	#200						
Cumulative Retained (g)	55.00	205.00	365.00						
Cumulative Retained %	11.00	41.00	73.00						
Cumulative Passing %	88.00	59.00	27.00						

3-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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	100.0	95.2	88.9	77.7	67.7	54.5	45.5	32.2	16.72
										<15

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

Contractor

ENG

SIGN

Ahmed Haleem

I. Farhat

Consultant

H. S. Sa

27/11/2023

	Electric Express Train - HSR		
	From El Ain El Sokhna City To El Alamein - MATROUH		
	Section : 7 From FOKA TO MARSA MATROUH		
From Station 514+000 To Station 518+177			

MODIFIED PROCTOR TEST ASTM D1557

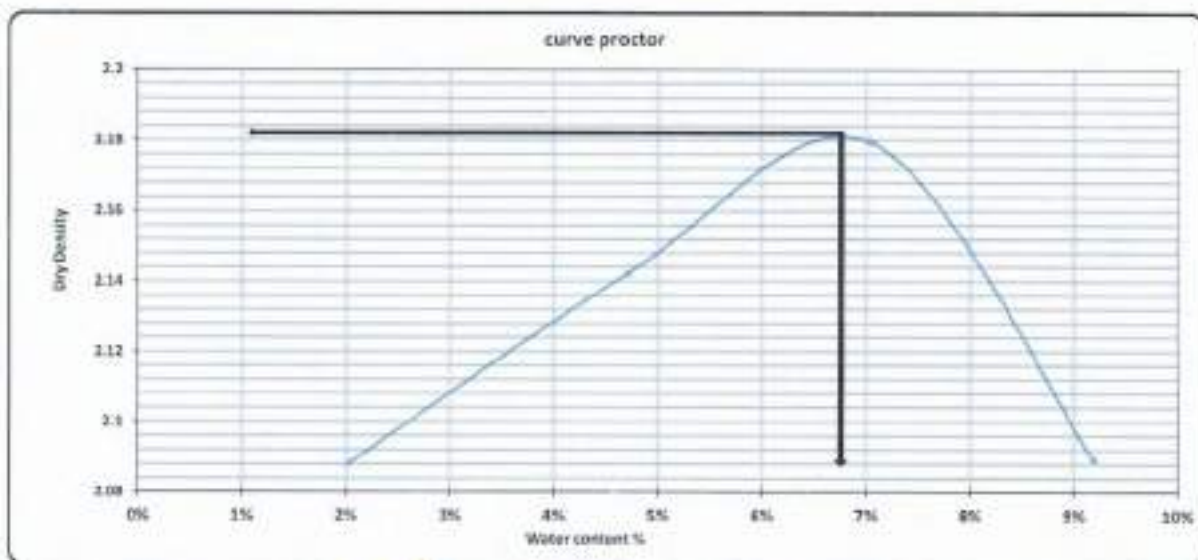
TESTING DATE:	27-11-2023	0200	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (6)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	4000m³	

Weight of empty mold :	520.4
Mold Volume:	2124.9

MAX Dry Density	2.181
Water content %	6.8%

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10145.0	10344.0	10575.0	10425	
WT. WET SOIL	4525.0	4764.0	4939.0	4845.0	
Wt. Density	2.130	2.243	2.333	2.281	

Tare No.	10	9	8	6	7	12	11	13		
Tare wt.	45.45	45.88	46.31	45.97	45.82	46.83	45.13	45.21		
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	148.18	148.12	145.65	145.78	143.80	143.68	141.78	142.15		
Wt. Of water	1.8	1.8	4.3	4.2	6.2	6.4	8.2	7.8		
Wt. Of dry soil	42.7	42.3	50.3	51.8	49.3	49.3	46.4	48.9		
Water content %	2.1%	2.8%	4.8%	4.6%	6.9%	7.2%	9.5%	8.8%		
AV. Water content %	2.0%		4.7%		7.0%		9.2%			
Dry Density	2.088		2.142		2.179		2.089			



Contractor

ENG Ahmed Haseem

SIG

I. Farhat



Consultant

2/12/2023



Electric Express Train - HSR



California Bearing Ratio TEST

Testing Date :	28/11/2023	Code	FROM STA :	510+000	511+500
Location :	K.P (510+500)	AL Hayah (R)	Material	fill material	
Company Name	AL Hayah		quantity	3000m ³	

:- Test Results

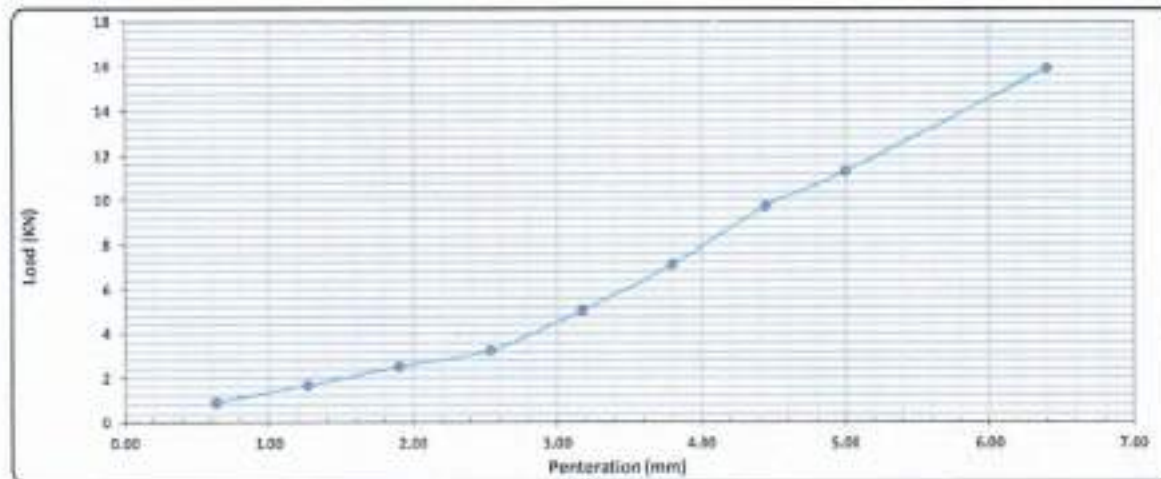
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm ³)	2238
Mold WT. (gms)	3338
Mold WT. + Wet WT. (gms)	10305
Wet WT. (gms)	6967
Wet Density (g/cm ³)	2.280
Dry Density (g/cm ³)	2.144
Theoretical Density (g/cm ³)	2.181
Compaction %	98.3

Moisture Ratio After Compacted Mold	
Sum of (gms)	18
Tare WT. (gms)	54.41
Tare WT. + Wet WT. (gms)	108
Tare WT. + Dry WT. (gms)	144.2
Wet WT. (gms)	53.8
Dry WT. (gms)	89.8
Moisture Content %	6.2

Swelling	
Mold No.	1
Date	28/11/2023
Initial Height (mm)	6.00
Final Height (mm)	6.00
Difference	0.00
Sample Height (mm)	120.0
Swelling Ratio %	0.00%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.08	6.40
Load Reading (Kgs)	89	185	279	361	561	788	1079	1253	1767
Load (KN)	0.9	1.7	2.7	3.2	5.0	7.1	9.7	11.3	15.9



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kgs)	(lb)	(%)	(%)	(%)	95% Limit %
2.50	3.25	13.4	24.3%	98	95	23.8%
5.00	11.28	26.0	36.2%			34.2%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :

Signature of Lab. Engineer: *I. Farhat*

Consultant Engineer

Name :

Sign :

Signature of Consultant Engineer: *Harba*

MATERIAL APPROVAL REQUEST



Location Name	Contractor Company		Designer Company																	
Electric express train	AL- HAYAH Company		k.k																	
Issued by Contractor	Name	Sign	Date	Time																
	Eng. Ahmed TAWFIK	A. Tawfik	8-12-2023																	
Contractor Reference	HA - (7) - 8-12-2023																			
Received by ER	MAR		<table border="1"> <tr> <td>C1</td><td>C2</td><td>C3</td><td>DD</td><td>MM</td><td>YY</td><td>HH</td><td>MM</td></tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>		C1	C2	C3	DD	MM	YY	HH	MM								
C1	C2	C3	DD	MM	YY	HH	MM													

NB: Package 1 only (Package 2 via Content)				
The following test result are attached for review				
Description of Materials	Soil (A-1-b)			
Location to be Used	K.P (510+500)			
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	14.14	
4	ASTM D 4318	Atterberg limit	N.PI	
5	ASTM D 2974	Moisture content	7.2 %	
6	ASTM D 1557	Modified proctor	2.165	
7	ASTM D 1883	CBR	54.7 %	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK	A. Tawfik	8-12-2023	
Contractor QA/QC *	Hassan			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

MATERIAL INSPECTION REQUEST



Location Name	Contractor Company		Designer Company							
Electric express train	AL-HAYAH COMPANY		k.k							
Issued by Contractor	Name	Sign	Date	Time						
	Eng. Ahmed TAWFIK	<i>A. Tawfik</i>	8-12-2023							
Contractor reference	HA - (6) 8-12-2023									
Received by ER		MIR	C1	C2	C3	DO	MM	YY	HH	MM

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

Description of Materials	FILL MATERIAL RESULTS		
	From	To	LAYER
	510+500	510+680	REPLACEMENT FILL LAYER -0.75 FROM T.O.E
	510+880	511+500	REPLACEMENT FILL LAYER -0.5 FROM T.O.E

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	6-12-2023	
2	Classification	m³	5000	6-12-2023	
3	Proctor & O.m.c	m³	5000	7-12-2023	
4	L.L & P.L & PI	m³	5000	6-12-2023	
5	C.B.R	m³	5000	8-12-2023	

Comments by:	Comments by:
A sample has been taken from fill material by K.K office to (Al Tawakol laboratory) and the results founded meet the specifications and accepted.	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK	<i>A. Tawfik</i>	8-12-2023	
QA/QC *	<i>Hassan</i>	<i>Hassan</i>		
GARB**				
Comments by				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

 KK ENGINEERING CONSULTING OFFICE مكتب الاستشارات الهندسية أ.د. خالد كركاش	 الهيئة العامة للقناة SCA	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA To MARGA MATROUH From Station 504+000 To Station 568+177	 الهيئة العامة للقناة SCA
Operating lap	Al Tawkol Central Lab		

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	06-12-2023	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (7)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	5000m³	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [gm]		33325.00		gm	table classify
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS	soil classify
Mass retained (g)	0.0	0.0	1523.0	2281.0	3764.0	3576.0	4327.0		CLASS A-1-B
Cumulative Retained (g)	0.0	0.0	1523.0	3804.0	7568.0	11144.0	15471.0	17854.0	PRO 2.165
Cumulative Retained %	0.0	0.0	4.6	11.4	22.7	33.4	46.4		WC 7.2%
Cumulative Passing %	100.0	100.0	95.4	88.6	77.3	66.6	53.58		CBR 54.7%
									CORR. PRO -
									CORR. WC -

B-soft material gradation				WT. OF sample		500.00		gm	
sieve size	#10	#40	#200						
Cumulative Retained (g)	65.00	195.00	368.00						
Cumulative Retained %	13.00	39.00	73.60						
Cumulative Passing %	87.00	61.00	26.40						

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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	100.0	95.4	88.6	77.3	66.6	53.6	46.6	32.7	14.18
										<15

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

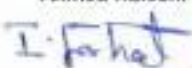
Contractor

ENG

Ahmed Haleem

SIGN

I. Farhat




Consultant

Hasan

2/12/2023





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 588+177



MODIFIED PROCTOR TEST ASTM D1557

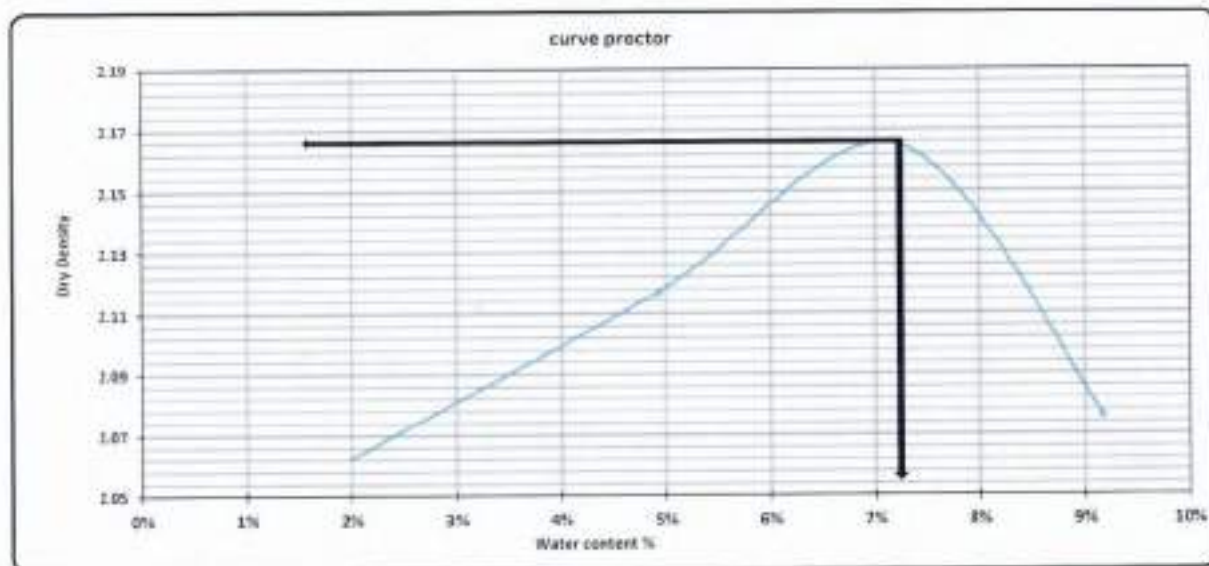
TESTING DATE	07-12-2023	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (7)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	5000m³	

Weight of empty mold :	5420.9
Mold Volume:	2124.9

MAX Dry Density	2.165
Water content %	7.2%

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10088.0	10337.0	10553.0	10454	
WT. WET SOIL	4668.0	4717.0	4931.0	4814.0	
Wt. Density	2.104	2.221	2.322	2.266	

Tare No.	1	2	3	4	5	6	7	8		
Tare wt.	55.46	55.89	55.32	53.97	53.49	54.81	54.34	55.34		
Wt. Of wet soil & tare	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0		
Wt. Of dry soil & tare	148.21	148.10	145.45	145.01	143.40	143.05	143.86	142.15		
Wt. Of water	1.8	1.9	4.6	4.4	6.6	6.3	8.1	7.8		
Wt. Of dry soil	92.8	92.2	90.1	91.6	89.9	88.8	87.5	86.8		
Water content %	1.9%	2.1%	5.0%	4.8%	7.3%	7.1%	8.3%	9.0%		
AV. Water content %	2.0%		4.9%		7.2%		8.2%			
Dry Density	2.062		2.117		2.165		2.076			



Contractor

ENG Ahmed Hakeem
 SIG *E. Fahat*



Consultant

Hassan
 9/12/2023

California Bearing Ratio TEST

Testing Date :	08-12-2023	Code	FROM STA :	510+000	511+500
Location :	K.P (510+500)	AL Hayah (7)	Material	fill material	
Company Name	AL Hayah		quantity	5000m ³	

- : Test Results

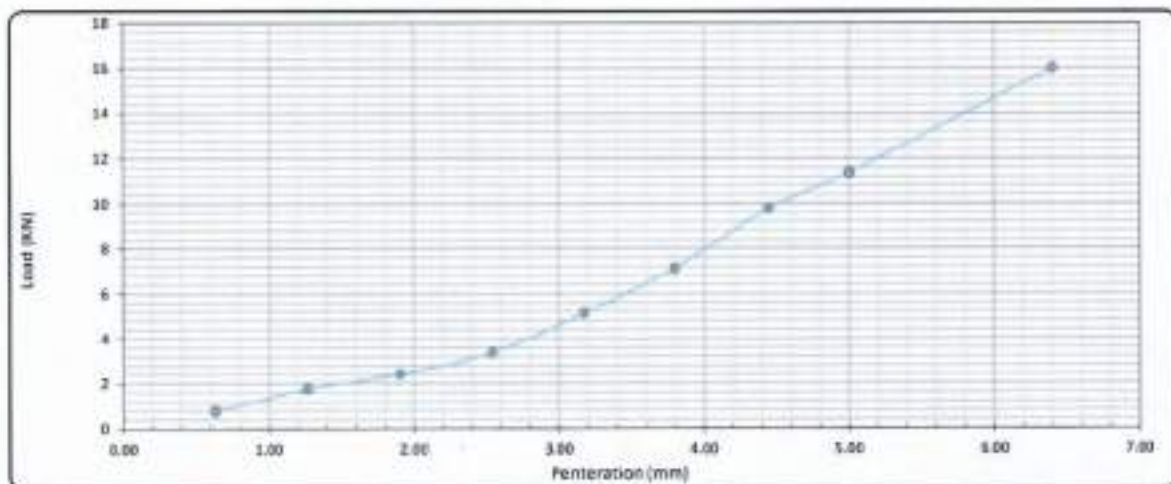
Compaction % for Mold	
Mold No.	1
Mold Vol (cm ³)	2110
Mold WT. (gm)	5510
Mold WT. + Wat WT. (gm)	10367
Wat WT. (gm)	9457
Wat Density (g/cm ³)	1.268
Dry Density (g/cm ³)	1.137
Proctor Density (g/cm ³)	1.165
Compaction %	98.7

Moisture Ratio After Compacted Mold	
Spec of test	01
Tare WT. (gm)	53.34
Tare WT. + Wet WT. (gm)	190
Tare WT. + Dry WT. (gm)	145.78
Water WT. (gm)	4.3
Dry WT. (gm)	88.4
Moisture Content %	7.1

Swelling	
Mold No.	1
Date	08-12-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0.00
Sample Height (mm)	120.0
Swelling Ratio %	0.00%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.08	6.40
Load Reading (Kg)	80	195	268	378	600	792	1085	1264	1770
Load (KN)	0.8	1.9	2.6	3.6	6.1	7.9	10.8	12.6	17.7



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(KN)	(KN)	(%)	(%)	(%)	95 % Assurance %
2.50	3.38	11.4	29.7%	99	99	34.3%
5.00	11.38	20.0	56.9%			54.7%

Lab. Specialist

Lab. Engineer

Contract Engineer

Name :

Name : Ahmed Haseem

Name :

Sign :

Sign :

Sign :



Signature of Hassan and date 9/12/2023

MATERIAL APPROVAL REQUEST



Location Name	Contractor Company		Designer Company							
Electric express train	AL- HAYAH Company		k.k							
Issued by Contractor	Name	Sign	Date	Time						
	Eng. Ahmed TAWFIK		19-12-2023							
Contractor Reference	HA - (8) - 19-12-2023									
Received by ER		MAR	C1	C2	C3	DD	MM	YY	HH	MM
						19	12	23		

NB: Package 1 only (Package 2 via Content)				
The following test result are attached for review				
Description of Materials	Soil (A-1-a)			
Location to be Used	K.P (510+500)			
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	9.39	
4	ASTM D 4318	Atterberg limit	N.A	
5	ASTM D 2974	Moisture content	7.2%	
6	ASTM D 1557	Modified proctor	2.17	
7	ASTM D 1883	CBR	50.7%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK		19-12-2023	
Contractor QA/QC *	mohamed sallen		26/12/2023	
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

MATERIAL INSPECTION REQUEST



الهيئة العامة
للتنظيم والبنية التحتية
(GARB)



Location Name	Contractor Company		Designer Company											
Electric express train	AL-HAYAH COMPANY		k.k											
Issued by Contractor	Name	Sign	Date	Time										
	Eng. Ahmed TAWFIK		19-12-2023											
Contractor reference	HA - (8) 19-12-2023													
Received by ER		MIR	<table border="1"> <tr> <td>DD</td><td>MM</td><td>YY</td><td>HH</td><td>MM</td></tr> <tr> <td>19</td><td>12</td><td>23</td><td></td><td></td></tr> </table>		DD	MM	YY	HH	MM	19	12	23		
DD	MM	YY	HH	MM										
19	12	23												

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 RESULTS		
Location to be Used	From	To	LAYER
	510+500	510+880	Fill replacement layer -0.5 from T.O.E
	511+060	511+500	Fill replacement layer -0.25 from T.O.E

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	17-12-2023	
2	Classification	m³	5000	17-12-2023	
3	Proctor & O.m.c	m³	5000	18-12-2023	
4	L.L & P.L & PI	m³	5000	17-12-2023	
5	C.B.R	m³	5000	19-12-2023	

Comments by:	Comments by:
A sample has been taken from fill material by K.K office to (Al Tawakol laboratory) and the results founded meet the specifications and accepted.	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK		19-12-2023	
QA/QC *	Mohamed Salim		26/12/2023	
GARB**				
Comments by				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA To MARS MATROUH From Station 504+000 To Station 563+177	
Operating lap	Al Tawkei Central Lab	

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	17-12-2023	CODE	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (8)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	5000m³	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (gm)				24530.00	gm	table classify	
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS		soil classify	
Mass retained (g)	0.0	0.0	1520.0	2280.0	3554.0	3576.0	5370.0			CLASS	A-1-a
Cumulative Retained (g)	0.0	0.0	1520.0	3800.0	7354.0	10930.0	16300.0	8230.0		PRO	2.170
Cumulative Retained %	0.0	0.0	6.2	15.5	30.0	44.6	66.4			WC	7.2%
Cumulative Passing %	100.0	100.0	93.8	84.5	70.0	55.4	33.6			CBR	50.7%
										CORR PRO	-
										CORR WC	-

B-soft material gradation			WT.OF sample		500.00	gm
sieve size	#10	#40	#200			
Cumulative Retained (g)	40.00	240.00	360.00			
Cumulative Retained %	8.00	48.00	72.00			
Cumulative Passing %	92.00	52.00	28.00			

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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	100.0	93.8	84.5	70.0	55.4	33.6	30.9	17.4	9.35
										<15

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

Contractor

ENG

SIGN

Ahmed Haleem

 المهندس أحمد هاليم (1)

Consultant

26/12
2023


 	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 508+177		

MODIFIED PROCTOR TEST ASTM D1557

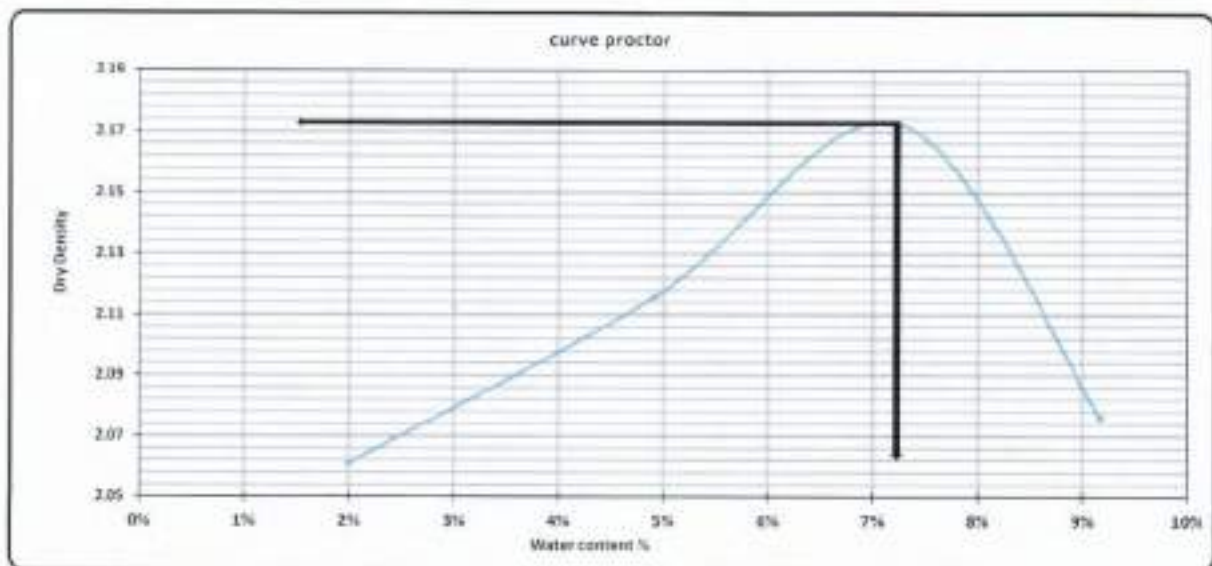
TESTING DATE	18-12-2023	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (B)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	5000m ³	

Weight of empty mold :	5620.8
Mold Volume:	2124.8

MAX Dry Density	2.17
Water content %	7.2%

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10085.0	10335.0	10569.0	10434	
WT. WET SOIL	4465.0	4715.0	4949.0	4814.0	
Wt. Density	2.102	2.210	2.330	2.266	

Tare No.	9	10	11	12	13	14	15	16		
Tare wt.	55.45	55.87	55.31	51.96	51.48	54.83	54.33	48.35		
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	148.21	148.10	145.45	145.61	143.40	143.65	141.80	142.15		
Wt. Of water	1.8	1.9	4.6	4.4	6.6	6.3	8.1	7.8		
Wt. Of dry soil	92.8	92.2	90.1	91.7	89.9	88.8	87.5	86.8		
Water content %	1.9%	2.1%	5.0%	4.8%	7.3%	7.1%	9.3%	9.0%		
AV. Water content %	2.0%		4.9%		7.2%		9.2%			
Dry Density	2.040		2.116		2.173		2.076			



Contractor
 ENG Ahmed Halem
 SIG *A. Halem*

 المهندس أحمد هلم (1)

Consultant

26/12
 2023




Electric Express Train - HSR



California Bearing Ratio TEST

Testing Date :	19-12-2023	Code	FROM STA :	510+000	511+500
Location :	K.P (510+500)	AL Hayah (B)	Material	fill material	
Company Name	AL Hayah		quantity	5000m ³	

:- Test Results :-

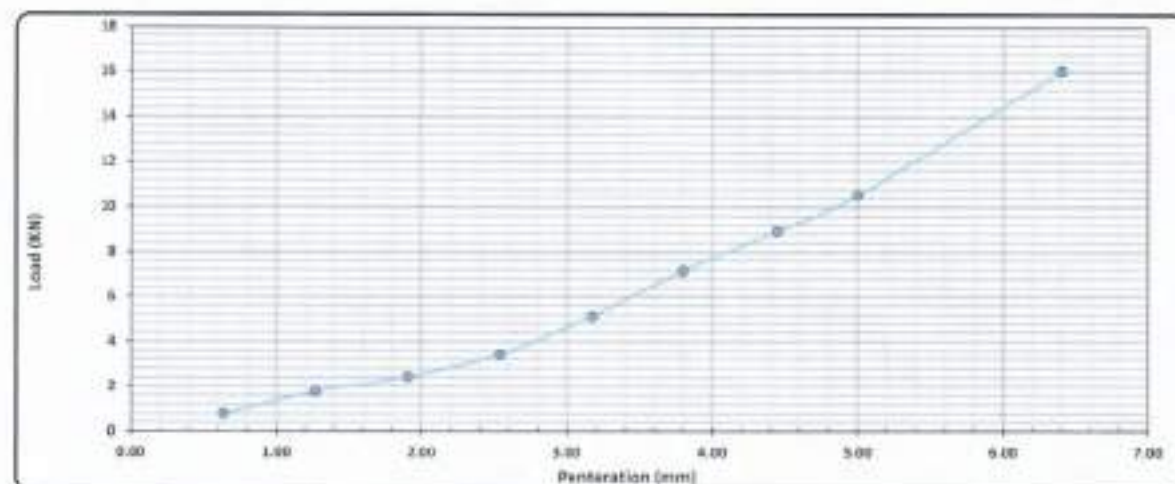
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm ³)	2016
Mold WT. (gm)	5516
Mold WT. + Wat WT. (gm)	10505
Wat WT. (gm)	5095
Wat Density (g/cm ³)	1.287
Dry Density (g/cm ³)	1.348
Proctor Density (g/cm ³)	1.17
Compaction %	98.6

Moisture Ratio After Compacted Mold	
Moisture Ratio	21
Tare WT. (gm)	55.33
Tare WT. + Wat WT. (gm)	189
Tare WT. + Dry WT. (gm)	143.9
Water WT. (gm)	9.1
Dry WT. (gm)	98.8
Moisture Content %	6.9

Swelling	
Mold No.	1
Date	09-12-2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0.00
Sample Height (mm)	128.0
Swelling Ratio %	0.00%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.81	4.45	5.08	6.40
Load Reading (Kg)	89	197	276	386	579	795	990	1170	1780
Load (kN)	0.8	1.8	2.4	3.4	5.1	7.2	9.9	10.5	16.0



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kgf)	(lb)	(%)	(%)	(%)	% من نسبة 98
2.50	3.42	13.4	25.6%	99	95	24.7%
5.00	10.53	20.8	50.6%			49.7%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name : Ahmed Hakeem

Sign :



Consultant Engineer

Name :

Sign :

MATERIAL APPROVAL REQUEST



Location Name	Contractor Company		Designer Company																
Electric express train	AL- HAYAH Company		k.k																
Issued by Contractor	Name	Sign	Date	Time															
	Eng. Ahmed TAWFIK	Ahmed Tawfik	5-01-2024																
Contractor Reference	HA - (9) - 5-01-2024																		
Received by ER		MAR	<table border="1"> <tr> <td>CL</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td></td> <td></td> <td></td> <td>5</td> <td>01</td> <td>24</td> <td></td> <td></td> </tr> </table>	CL	C2	C3	DD	MM	YY	HH	MM				5	01	24		
CL	C2	C3	DD	MM	YY	HH	MM												
			5	01	24														

NB: Package 1 only (Package 2 via Content)				
The following test result are attached for review				
Description of Materials		Soil (A-1-a)		
Location to be Used		K.P (510+500)		
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	12.67	
4	ASTM D 4318	Atterberg limit	N.A	
5	ASTM D 2974	Moisture content	7.2%	
6	ASTM D 1557	Modified proctor	2.16	
7	ASTM D 1883	CBR	51.9%	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK	Ahmed Tawfik	5-01-2024	
Contractor QA/QC *	Hassan			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

MATERIAL INSPECTION REQUEST



Location Name	Contractor Company		Designer Company	
Electric express train	AL-HAYAH COMPANY		k.k	
Issued by Contractor	Name	Sign	Date	Time
	Eng. Ahmed TAWFIK	Ahmed Tawfik	5-01-2024	
Contractor reference	HA - (9) 5-01-2024			
Received by ER		MIR	CS	DD
			5	01
			24	

CODE - 1	S1 to S21 Station Reference	01 to S3 Depot Reference	4p 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 RESULTS		
	From	To	LAYER
	510+500	511+060	Fill replacement layer -0.25 from T.D.E
	511+220	511+500	Fill replacement layer forma level

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	3-01-2024	
2	Classification	m³	5000	3-01-2024	
3	Proctor & O.m.c	m³	5000	4-01-2024	
4	LL & P.L & PI	m³	5000	3-01-2024	
5	C.B.R	m³	5000	5-01-2024	

Comments by:	Comments by:
A sample has been taken from fill material by K.K office to (Al Tawakol laboratory) and the results founded meet the specifications and accepted.	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK	Ahmed Tawfik	5-01-2024	
QA/QC *	Massa			
GARB**				
Comments by				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

 KK ENGINEERING CONSULTING OFFICE المكتب الاستشاري للهندسة أو م.ك.ع.و	 HSR High Speed Rail مصر	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 للسكك الحديدية جمهورية مصر العربية
Operating lap	Al Tawkol Central Lab		

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	03-01-2024	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (9)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	5000m³	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (gm)				22010.00	gm	table classify
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS		soil classify
Mass retained (g)	0.0	840.0	1563.0	2400.0	2130.0	1515.0	3235.0		CLASS	A-1-a
Cumulative Retained (g)	0.0	840.0	2405.0	4805.0	6935.0	8450.0	11685.0	10325.0	PRO	2.165
Cumulative Retained %	0.0	3.8	10.9	21.8	31.5	38.4	53.1		WC	7.2%
Cumulative Passing %	100.0	96.2	89.1	78.2	68.5	61.6	46.91		CBR	51.9%
									CORR PRO	-
									CORR WC	-

B-soft material gradation				WT.OF sample		500.00	gm
sieve size	#10	#40	#200				
Cumulative Retained (g)	55.00	200.00	365.00				
Cumulative Retained %	11.00	40.00	73.00				
Cumulative Passing %	89.00	60.00	27.00				

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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	96.2	89.1	78.2	68.5	61.6	46.9	41.8	26.1	12.07
										<15

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

Contractor

ENG

Ahmed Haleem

SIGN




Consultant

Handwritten signature of the consultant

 	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				

MODIFIED PROCTOR TEST ASTM D1557

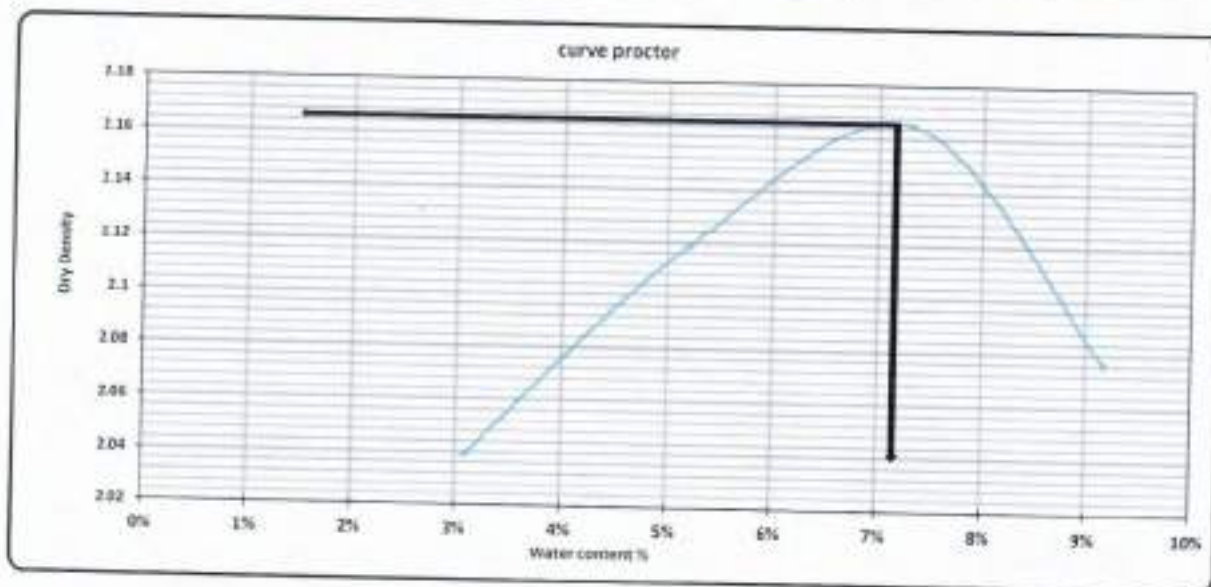
TESTING DATE:	04-01-2024	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (9)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	5000m ³	

Weight of empty mold :	5620.0
Mold Volume:	1114.0

MAX Dry Density	2.165
Water content %	7.2%

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10085.0	10355.0	10555.0	10474	
WT. WET SOIL	4465.0	4735.0	4935.0	4814.0	
Wt. Density	2.102	2.229	2.323	2.266	

Tare No.	18	19	22	20	26	27	15	16		
Tare wt.	88.65	84.36	84.48	83.63	85.22	84.28	84.33	85.35		
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	147.20	147.10	145.30	145.20	143.50	143.50	141.86	142.15		
Wt. Of water	2.8	2.9	4.7	4.8	6.5	6.5	8.1	7.8		
Wt. Of dry soil	91.9	92.7	90.8	91.6	88.3	89.2	87.5	86.8		
Water content %	3.0%	3.1%	5.2%	5.2%	7.4%	7.3%	9.3%	9.0%		
AV. Water content %	3.1%		5.2%		7.3%		9.2%			
Dry Density	2.039		2.119		2.165		2.076			



Contractor

ENG Ahmed Halem
SIG

المجلس البلدي لمحافظة السويس
السيد المهندس احمد هاليم

Consultant

2024

	Electric Express Train - HSR	
--	--	--

California Bearing Ratio TEST

Testing Date :	05-01-2024	Code	FROM STA :	510+000	511+500
Location :	K.P (510+500)	AL Hayah (B)	Material	fill material	
Company Name	AL Hayah		quantity	5000m ³	

:- Test Results

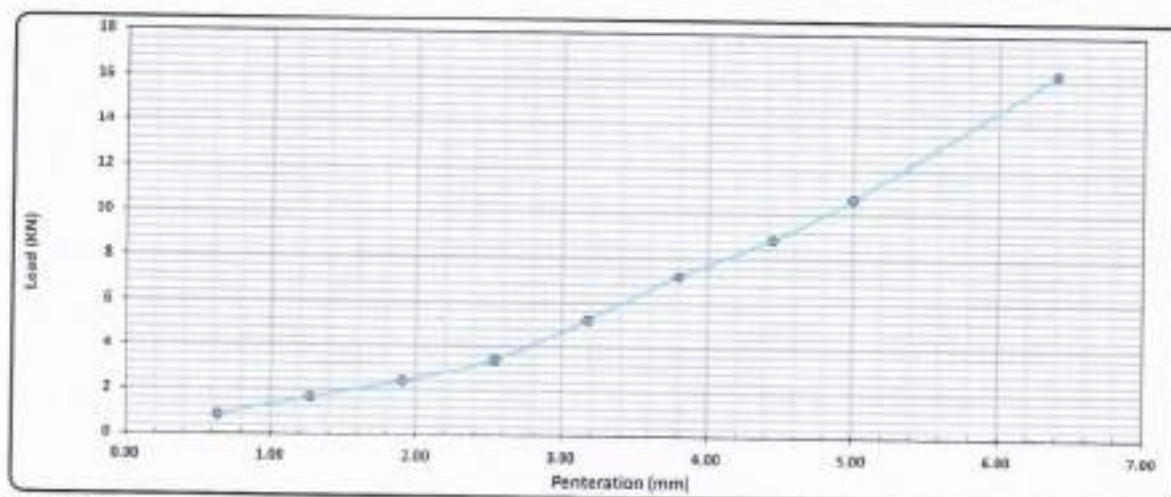
Compaction % for Mold	
Mold No.	1
Mold Vol (cm ³)	2218
Mold WT. (gm)	9218
Mold WT. - Wat WT. (gm)	10358
Wat WT. (gm)	5028
Wet Density (g/cm ³)	2.271
Dry Density (g/cm ³)	2.121
Proctor Density (g/cm ³)	2.168
Compaction %	88.0

Moisture Ratio After Compacted Mold	
Num of test	2
Tare WT. (gm)	92.34
Tare WT. + Wet WT. (gm)	180
Tare WT. + Dry WT. (gm)	103.8
Water WT. (gm)	8.4
Dry WT. (gm)	95.3
Moisture Content %	7.1

Swelling	
Mold No.	1
Date	05-01-2024
Initial Height (mm)	9.00
Final Height (mm)	9.00
Difference	0.00
Sample Height (mm)	120.0
Swelling Ratio %	0.00%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.43	5.08	6.40
Load Reading (Kg)	92	185	267	378	479	600	683	1190	1809
Load (kN)	0.8	1.7	2.4	3.4	5.2	7.2	8.8	16.7	16.3



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
mm	(Kg)	(lb)	(%)	(%)	(%)	95 قبة نسبة %
2.50	3.00	13.4	25.5%	98	95	24.7%
5.00	10.71	20.9	51.5%			51.0%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Ahmed Maham

Sign :



Consultant Engineer

Name :

Sign :

(Handwritten signature)

MATERIAL APPROVAL REQUEST



Location Name	Contractor Company		Designer Company																	
Electric express train	AL- HAYAH Company		k.k																	
Issued by Contractor	Name	Sign	Date	Time																
	Eng. Ahmed TAWFIK	Ahmed Tawfik	19-10-2023																	
Contractor Reference	HA - (2) - 19-10-2023																			
Received by ER	MAR		<table border="1"> <tr> <td>C1</td><td>C2</td><td>C3</td><td>C4</td><td>MM</td><td>YY</td><td>HH</td><td>MM</td></tr> <tr> <td></td><td></td><td></td><td></td><td>19</td><td>10</td><td>23</td><td></td></tr> </table>		C1	C2	C3	C4	MM	YY	HH	MM					19	10	23	
C1	C2	C3	C4	MM	YY	HH	MM													
				19	10	23														

NB: Package 1 only (Package 2 via Content)				
The following test result are attached for review				
Description of Materials	Soil (A-1-A)			
Location to be Used	K.P (516+500)			
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	14.11	
4	ASTM D 4318	Atterberg limit	N. PI	
5	ASTM D 2974	Moisture content	7.3 %	
6	ASTM D 1557	Modified proctor	2.16	
7	ASTM D 1883	CBR	67.2%	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK	Ahmed Tawfik	19-10-2023	
Contractor QA/QC *	mohamed elsaied	m. elsaied	22-10-2023	
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

MATERIAL INSPECTION REQUEST



Location Name	Contractor Company		Designer Company																
Electric express train	AL-HAYAH COMPANY		k.k																
Issued by Contractor	Name	Sign	Date	Time															
	Eng. Ahmed TAWFIK		19-10-2023																
Contractor reference	HA - (2) 19-10-2023																		
Received by ER		MIR	<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>NN</td> </tr> <tr> <td></td> <td></td> <td></td> <td>19</td> <td>10</td> <td>23</td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	NN				19	10	23		
C1	C2	C3	DD	MM	YY	HH	NN												
			19	10	23														

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

Description of Materials	FILL MATERIAL RESULTS		
Location to be Used	From	To	LAYER
	510+500	510+600	استبدال / -1.75
	510+600	510+700	استبدال / -1.75
	510+720	510+820	استبدال / -1.75
	510+820	510+920	استبدال / -1.75
	510+920	510+980	استبدال / -1.75
	511+000	511+180	FILL REPLACEMENT LAYER -1.5
	511+180	511+280	FILL REPLACEMENT LAYER -1.5
	511+280	511+380	FILL REPLACEMENT LAYER -1.5
511+380	511+480	FILL REPLACEMENT LAYER -1.5	

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	3500	17-10-2023	
2	Classification	m³	3500	17-10-2023	
3	Proctor & O.m.c	m³	3500	18-10-2023	
4	L.L & P.L & PI	m³	3500	17-10-2023	
5	C.B.R	m³	3500	19-10-2023	

Comments by:	Comments by:
A sample has been taken from fill material by K.K office to (Al Tawakol laboratory) and the results founded meet the specifications and accepted.	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK	Ahmed Tawfik	19-10-2023	
QA/QC *	mohamed elsaied	m.elsaied	22-10-2023	
GARB**				
Comments by				
Employers Representative				

* Designer

** Alignment / Bridges / Culvert Only

 K.K. KAWTAR ك.ك. كواتر ك.ك. كواتر	 الهيئة العامة للقناة SCA	Electric Express Train - HSR	 الهيئة العامة للقناة SCA
		From El Ain El Sokhna City To El Alamein - MATROUH	
		Section - 7 From FOKA To NARSA MATROUH	
From Station 504+000 To Station 508+177			
Operating top	Al Tawkol Central Lab		

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	17/10/2023	code	ZONE	S10+000	S11+500
LOCATION	K.P (S10+000)	AL Haysh (2)	Material	RI material layer	
NAME COMPANY	AL Haysh		quantity	3500m³	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [gm]		40235.00		gm	table classify	
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS	soil classify	
Mass retained (g)	0.0	1106.0	2135.0	4348.0	3525.0	4100.0	4860.0		CLASS	A1-a
Cumulative Retained (g)	0.0	1106.0	3440.0	7788.0	11300.0	15400.0	20260.0	19579.0	PRO	2.16
Cumulative Retained %	0.0	2.7	8.5	18.3	28.8	38.3	51.4		WC	7.3%
Cumulative Passing %	100.0	97.3	91.5	81.7	71.2	60.7	48.6		CBR	67.2%
								CORR PRO	+	
								CORR WC	+	

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	#10	#40	#200					
Cumulative Retained (g)	43.00	254.00	355.00					
Cumulative Retained %	8.60	50.80	71.00					
Cumulative Passing %	91.40	49.20	29.00					

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	97.3	91.5	80.7	71.2	60.7	48.6	44.5	21.9	14.11

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

Contractor

ENG
SIGN

Ahmed Hafeez

المهندس ك.ك. كواتر

Consultant

mohamed elsaid

29-10-2023

 وزارة النقل والتنمية الاقتصادية Ministry of Transport and Economic Development	Electric Express Train - HSR From El Ain El Sokhra City To El Anamein - MATROUH Section - 7 From FOKA TO MARSA MATROUH From Station 504+000 To Station 508+177		 وزارة التخطيط والبحث الاقتصادي Ministry of Planning and Economic Research

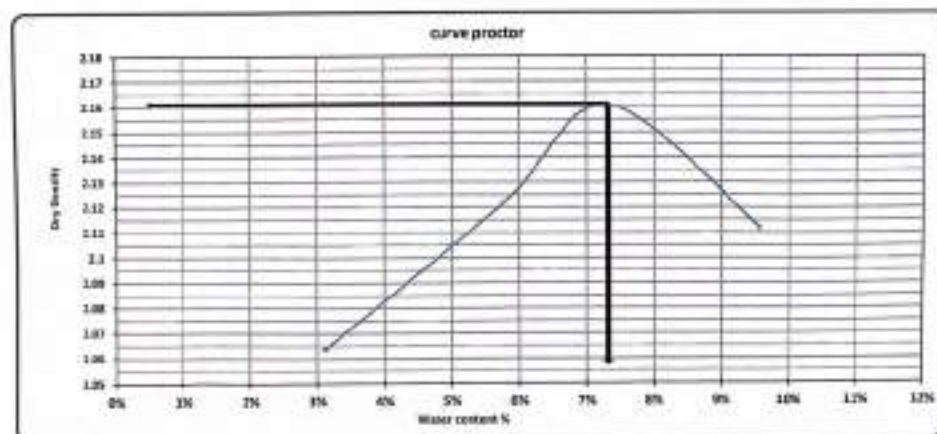
MODIFIED PROCTOR TEST ASTM D1557

TESTING DATE:	16/10/2023	code	Station	510+000	511+000
LOCATION	K.P (510+886)	AL Hayah 2	Material	Silt material	
NAME COMPANY	AL Hayah		quantity	3500m³	

Weight of empty mold :	5820.0	MAX Dry Density	2.18
Mold Volume:	2124.0	Water content %	7.3%

trial no :	1	2	3	4	
WT. Of Mold + wet soil	19140.8	10585.0	10648.0	1855	
WT. WET SOIL	4520.8	4765.0	4938.0	4515.8	
Wt. Density	2.118	2.263	2.309	2.514	

Tare No.	10	11	12	13	14	15	16	17		
Tare wt.	55.34	55.83	51.81	51.21	83.44	80.41	81.31	54.33		
Wt. Of wet soil & tare	190.0	199.0	150.0	150.0	158.8	180.9	186.8	180.9		
Wt. Of dry soil & tare	147.38	147.30	145.18	145.16	143.30	143.58	141.91	141.82		
Wt. Of water	2.9	3.8	4.8	4.7	4.7	6.1	8.1	8.2		
Wt. Of dry soil	91.8	91.4	91.4	91.1	89.7	98.1	84.7	85.5		
Water content %	3.1%	3.1%	5.3%	4.3%	7.4%	7.3%	9.6%	9.6%		
AV. Water content %	3.1%		5.8%		7.3%		9.6%			
Dry Density	2.854		2.121		2.161		2.112			

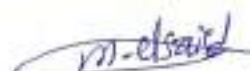


Contractor:

ENG. Ahmed Husein
 SIG

 المهندس احمد حسين (ك.م.ع.)

Consultant

mohamed elsaid

 22-10-2023



Electric Express Train - HSR



California Bearing Ratio TEST

Testing Date :	19/10/2023	Code	FROM STA :	510+000	511+500
Location :	S.P (100+800)	AL Hayah (2)	Material	(fill material)	
Company Name :	As. Rayah		quantity	25000m ³	

1- Test Results

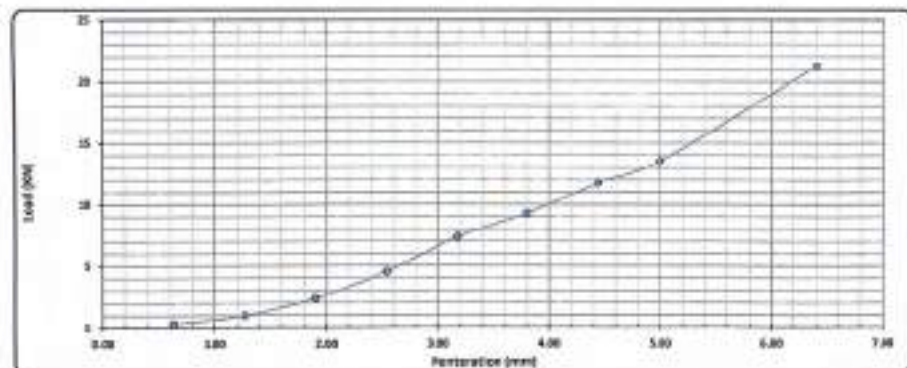
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm ³)	1017
Mold WT. (gm)	1178
Mold WT. + Wet WT. (gm)	1060
Wet WT. (gm)	488
Wet Density (g/cm ³)	3.118
Dry Density (g/cm ³)	2.668
Proctor Density (g/cm ³)	2.162
Compaction %	93.7

Moisture Ratio After Compacted Mold	
Tare No.	17
Tare WT. (gm)	86.6
Tare WT. + Wet WT. (gm)	188
Tare WT. + Dry WT. (gm)	143.6
Moist WT. (gm)	4.4
Dry WT. (gm)	83.0
Moisture Content %	6.7

Swelling	
Mold No.	2
Time	18/10/2023
Initial Height (mm)	8.00
Final Height (mm)	8.00
Diffusion	8.00
Sample Height (mm)	130.8
Swelling Ratio %	0.00%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.81	4.45	5.08	5.71
Load Reading (Kg)	34	110	264	500	817	1000	1249	1581	1948
Load (KPa)	8.7	1.0	1.4	4.1	5.6	8.3	10.8	13.5	21.3



Calculations :-

Penetration	Load	Standard Load	CBR	Mold Compaction	Compaction	CBR
(mm)	(KPa)	(lb)	(%)	(%)	(%)	(%)
1.91	1.4	15.4	9.10%	93	93	33.6%
5.08	13.5	20.0	67.5%	96	96	67.1%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :

Consultant Engineer

Name :

Sign :

Signature of Lab. Engineer

Signature of Consultant Engineer: mohamed elsaied
22-10-2023

MATERIAL APPROVAL REQUEST



Location Name	Contractor Company		Designer Company							
Electric express train	AL- HAYAH Company		k.k							
Issued by Contractor	Name	Sign	Date	Time						
	Eng. Ahmed TAWFIK	Ahmed Tawfik	12-10-2023							
Contractor Reference	HA - (1) - 12-10-2023									
Received by ER		MAR	C1	C2	C3	DO	MM	YY	HH	MM
						12	10	23		

NB: Package 1 only (Package 2 via Content)				
The following test result are attached for review				
Description of Materials	Soil (A-1-A)			
Location to be Used	K.P (510+500)			
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	12.62	
4	ASTM D 4318	Atterberg limit	N. PI	
5	ASTM D 2974	Moisture content	8 %	
6	ASTM D 1557	Modified proctor	2.16	
7	ASTM D 1883	CBR	69.9%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK	Ahmed Tawfik	12-10-2023	
Contractor QA/QC *	mohamed elsaied	mselmaied	18-10-2023	
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

MATERIAL INSPECTION REQUEST



Location Name	Contractor Company		Designer Company																	
Electric express train	AL-HAYAH COMPANY		k.k																	
Issued by Contractor	Name	Sign	Date	Time																
	Eng. Ahmed TAWFIK	Ahmed Tawfik	12-10-2023																	
Contractor reference	HA - (1) 12-10-2023																			
Received by ER	MIR		<table border="1"> <tr> <td>C1</td><td>C2</td><td>C3</td><td>DD</td><td>MM</td><td>YY</td><td>HH</td><td>MM</td></tr> <tr> <td></td><td></td><td></td><td>12</td><td>10</td><td>23</td><td></td><td></td></tr> </table>		C1	C2	C3	DD	MM	YY	HH	MM				12	10	23		
C1	C2	C3	DD	MM	YY	HH	MM													
			12	10	23															

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 RESULTS		
Location to be Used	From	To	LAYER
	510+980	511+080	استعداد / -1.75
	511+080	511+180	استعداد / -1.75
	511+180	511+280	استعداد / -1.75
	511+280	511+380	استعداد / -1.75
	511+380	511+480	استعداد / -1.75

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	3000	10-10-2023	
2	Classification	m³	3000	10-10-2023	
3	Proctor & O.m.c	m³	3000	11-10-2023	
4	LL & P.L & PI	m³	3000	10-10-2023	
5	C.B.R	m³	3000	12-10-2023	

Comments by:	Comments by:
A sample has been taken from fill material by K.K office to (Al Tawakol laboratory) and the results founded meet the specifications and accepted.	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK	Ahmed Tawfik	12-10-2023	
QA/QC *	mohamed elsaied	m-elsaied	18-10-2023	
GARB**				
Comments by				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

 K.K. CONSULTING ENGINEERS مكتب الاستشارات الهندسية ك.ك. استشارات	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA To MARS MATROUH From Station 504+000 To Station 588+177	 الهيئة العامة للقناة SCA
Operating lap	Al Tawkol Central Lab	

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	10/10/2023	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (1)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	3000m ³	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [gm]		32115.00		gm	table classify	soil classify
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS		
Mass retained (g)	0.0	1252.0	2311.0	5323.0	3025.0	2662.0	1562.0		CLASS	A1-a
Cumulative Retained (g)	0.0	1252.0	3563.0	8886.0	11911.0	14573.0	18135.0	13980.0	PRO	2.16
Cumulative Retained %	0.0	3.9	11.1	27.7	37.1	45.4	56.5		WC	8%
Cumulative Passing %	100.0	96.1	88.9	72.3	62.9	54.6	43.53		CBR	69.9%
									CORR PRO	-
									CORR WC	-

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	#10	#40	#200					
Cumulative Retained (g)	45.00	210.00	355.00					
Cumulative Retained %	9.00	42.00	71.00					
Cumulative Passing %	91.00	58.00	29.00					

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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	96.1	88.9	72.3	62.9	54.6	43.5	39.6	25.2	12.80

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

Contractor

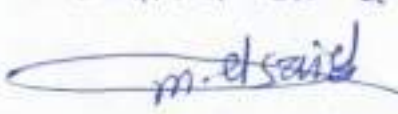
ENG
SIGN

Ahmed Haleem




Consultant

mohamed elsaied


 18-10-2023



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



MODIFIED PROCTOR TEST ASTM D1557

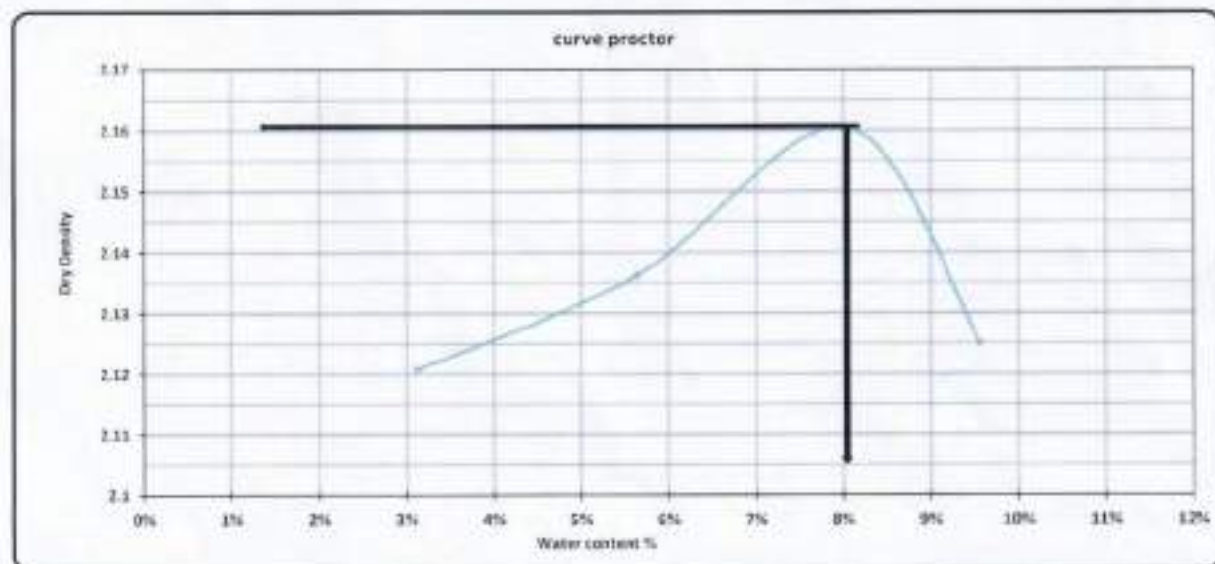
TESTING DATE:	11/10/2022	0000	Station	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (1)	Material	fill material	
NAME COMPANY	AL Hayah		quantity	3000m'	

Weight of empty mold :	5620.0
Mold Volume:	2124.0

MAX Dry Density	2.16
Water content %	6.7%

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10265.0	10413.0	10578.0	10565	
WT. WET SOIL	4645.0	4793.0	4958.0	4945.0	
Wt. Density	2.187	2.187	2.334	2.328	

Tare No.	5	7	12	15	17	19	20	23		
Tare wt.	53.21	55.21	54.63	54.21	54.33	58.63	57.21	56.33		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.4	150.0		
Wt. Of dry soil & tare	147.00	147.20	145.00	144.80	143.20	142.80	141.91	141.82		
Wt. Of water	3.0	2.8	5.0	5.2	6.8	7.1	8.3	8.2		
Wt. Of dry soil	93.8	92.8	98.4	98.6	88.9	84.3	84.7	85.5		
Water content %	3.2%	3.0%	5.4%	5.7%	7.7%	8.4%	9.6%	9.6%		
AV. Water content %	3.1%		5.6%		8.3%		9.6%			
Dry Density	2.123		2.136		2.190		2.125			



Contractor

ENG Ahmed Hakeem
 SIG



Consultant

mohamed elsaied
 m-elsaied
 18-10-2022



Electric Express Train - HSR



California Bearing Ratio TEST

Testing Date :	12/10/2023	Grade	FROM STA :	510+000	511+500
Location :	K.P (510+500)	AL Hayah (1)	Material	fill material	
Company Name	AL Hayah		quantity	3000m ³	

Test Results

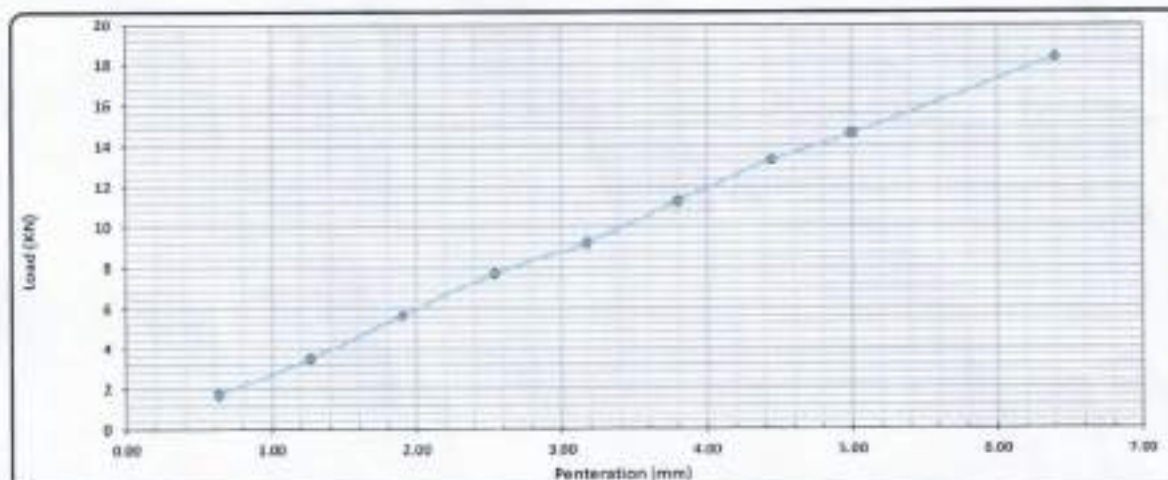
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm ³)	2145
Mold WT. (gms)	946
Mold WT. + Wet WT. (gms)	19258
Wet WT. (gms)	4818
Wet Density (g/cm ³)	2.26
Dry Density (g/cm ³)	2.137
Proctor Density (g/cm ³)	2.160
Compaction %	98.9

Moisture Ratio After Compacted Mold	
Tare No.	31
Tare WT. (gms)	84.3
Tare WT. + Wet WT. (gms)	138
Tare WT. + Dry WT. (gms)	140
Water WT. (gms)	7.6
Dry WT. (gms)	92.7
Moisture Content %	7.6

Swelling	
Mold No.	1
Date	12/10/2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Settlement	0.00
Sample Height (mm)	128.0
Swelling Ratio %	0.00%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.08	6.40
Load Reading (Kg)	190	387	625	855	1023	1250	1475	1620	2040
Load (KN)	1.7	3.5	5.6	7.7	9.2	11.3	13.3	14.6	18.4



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kg)	(lb)	(%)	(%)	(%)	نسبة %
2.50	7.70	13.4	57.6%	99	95	55.4%
5.00	14.58	20.8	70.8%			69.9%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :

Signature of Lab. Engineer: *[Signature]*
 Stamp: *[Official Stamp]*

Consultant Engineer

Name :

Sign :

Signature of Consultant Engineer: *[Signature]*
 Date: 18-10-2023

MATERIAL APPROVAL REQUEST



Location Name	Contractor Company		Designer Company										
Electric express train	AL- HAYAH Company		k.k										
Issued by Contractor	Name	Sign	Date	Time									
	Eng. Ahmed TAWFIK		12-10-2023										
Contractor Reference	HA - (3) - 2-11-2023												
Received by ER	MAR		<table border="1"> <tr> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td>2</td> <td>11</td> <td>23</td> <td></td> <td></td> </tr> </table>	DD	MM	YY	HH	MM	2	11	23		
DD	MM	YY	HH	MM									
2	11	23											

NB: Package 1 only (Package 2 via Content)

The following test result are attached for review

Description of Materials	Soil (A-1-A)			
Location to be Used	K.P (510+500)			
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	12.49	
4	ASTM D 4318	Atterberg limit	N. Pl	
5	ASTM D 2974	Moisture content	7.5 %	
6	ASTM D 1557	Modified proctor	2.17	
7	ASTM D 1883	CBR	57.1	
Comments by:		Comments by:		

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK		2-11-2023	
Contractor QA/QC *	Hassan			
GARE**				
Employers Representative				

* Designer

** Alignment Bridges: Civil Only

MATERIAL INSPECTION REQUEST



Location Name	Contractor Company		Designer Company								
Electric express train	AL-HAYAH COMPANY		k.k								
Issued by Contractor	Name	Sign	Date	Time							
	Eng. Ahmed TAWRIK		12-10-2023								
Contractor reference	HA - (3) 2-11-2023										
Received by ER			MIR	C1	C2	C3	D0	MM	YY	HH	MM
							2	11	23		

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 RESULTS		
Location to be Used	From	To	LAYER
	S10+500	S11+000	REPLACEMENT FILL LAYER -1.5 FROM T.O.E
	S11+100	S11+480	REPLACEMENT FILL LAYER -1.25 FROM T.O.E

MAR Approval No	Date				
Supplier Name					
Test Requirement	Specification				
Reference Photos	Yes attached / No				
Other	Clause				
Item	Description	Unit	Quantity	Arrival Date	Note
1	Sieve analysis	m ³	2500	31-10-2023	
2	Classification	m ³	2500	31-10-2023	
3	Proctor & O.M.C	m ³	2500	1-11-2023	
4	LL & PL & FI	m ³	2500	31-10-2023	
5	C.B.R	m ³	2500	2-11-2023	

Comments by:	Comments by:
A sample has been taken from fill material by K.K office to (Al Tawakol laboratory) and the results founded meet the specifications and accepted.	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWRIK		2-11-2023	
QA/QC *	Hassan			
GARE**				
Comments by				
Employers Representative				

 K.K. Engineering Consulting Office مكتب الاستشارات الهندسية ك.ك.	 الهيئة العامة للقناة SCA	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 562+177	 الهيئة العامة للقناة SCA
Operating lap	Al Tawkol Central Lab		

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	31/10/2023	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (3)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	2500m³	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (gm)				26335.00	gm	table classify	
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS	soil classify		
Mass retained (g)	0.0	0.0	0.0	3945.0	4440.0	3200.0	3000.0		CLASS	A1-A	
Cumulative Retained (g)	0.0	0.0	0.0	3945.0	8385.0	11585.0	14585.0	11750.0	PRO	2.17	
Cumulative Retained %	0.0	0.0	0.0	15.0	31.8	44.0	55.4		WC	7.5%	
Cumulative Passing %	100.0	100.0	100.0	85.0	68.2	56.0	44.6		CBR	57.1 %	
									CORR. PRO	-	
B-soft material gradation				WT. OF sample		500.00		gm	CORR. WC	-	

B-soft material gradation				WT. OF sample		500.00		gm
sieve size	#10	#40	#200					
Cumulative Retained (g)	45.00	170.00	360.00					
Cumulative Retained %	9.00	34.00	72.00					
Cumulative Passing %	91.00	66.00	28.00					

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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	100.0	100.0	85.0	68.2	56.0	44.6	40.6	29.4	13.45
										<15

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

Contractor

ENG

Ahmed Haseem

SIGN



Consultant

Hassan



 وزارة النقل والتنمية الاقتصادية Ministry of Transport and Economic Development	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA TO MARSA MATROUH From Station 504+005 To Station 560+177	 الهيئة العامة للقواطر General Authority of Railways
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MODIFIED PROCTOR TEST ASTM D1557

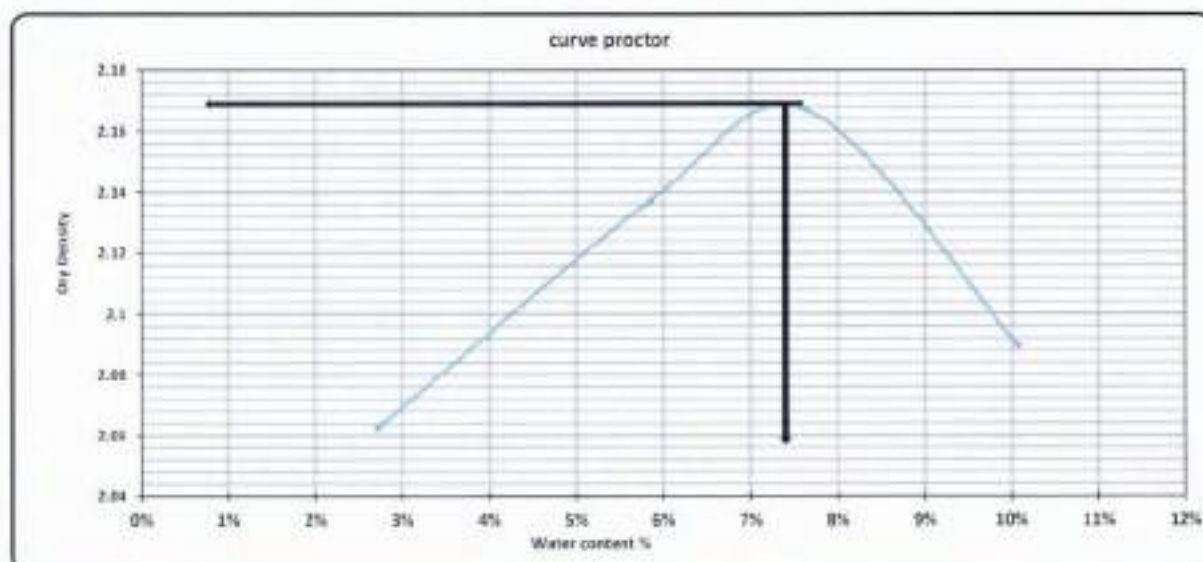
TESTING DATE:	1/11/2023	code	Station	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (3)	Material	fill material	
NAME COMPANY	AL Hayah		quantity	2500m ³	

Weight of empty mold :	5620.0
Mold Volume:	2124.0

MAX Dry Density	2.17
Water content %	7.5%

trial no :	1	2	3	4	
Wt. Of Mold + wet soil	10120.0	10425.0	10575.0	10505	
WT. WET SOIL	4500.0	4805.0	4955.0	4885.0	
Wt. Dry soil	2.119	2.262	2.333	2.300	

Tare No.	11	12	13	14	15	16	17	18		
Tare wt.	55.21	54.25	55.32	56.88	57.21	56.63	59.33	63.2		
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	147.40	147.50	145.25	144.30	143.54	143.56	141.93	141.85		
Wt. Of water	2.6	2.5	4.8	5.6	6.7	6.4	8.1	8.2		
Wt. Of dry soil	94.2	93.3	89.0	87.5	86.1	84.9	82.6	78.7		
Water content %	2.8%	2.7%	5.3%	6.4%	7.7%	7.6%	9.8%	10.4%		
AV. Water content %	2.7%		5.9%		7.7%		10.1%			
Dry Density	2.063		2.137		2.167		2.090			



Contractor

ENG Ahmed Hakeem
SIG


 أحمد الحكيم
 المهندس

Consultant


 Hassan
 4/11/2023

California Bearing Ratio TEST

Testing Date :	2/11/2023	Code	FROM STA :	510+000	511+500
Location :	K.P (510+500)	AC Hayah (1)	Material	fill material	
Company Name	AL Hayah		quantity	2500m ³	

:- Test Results

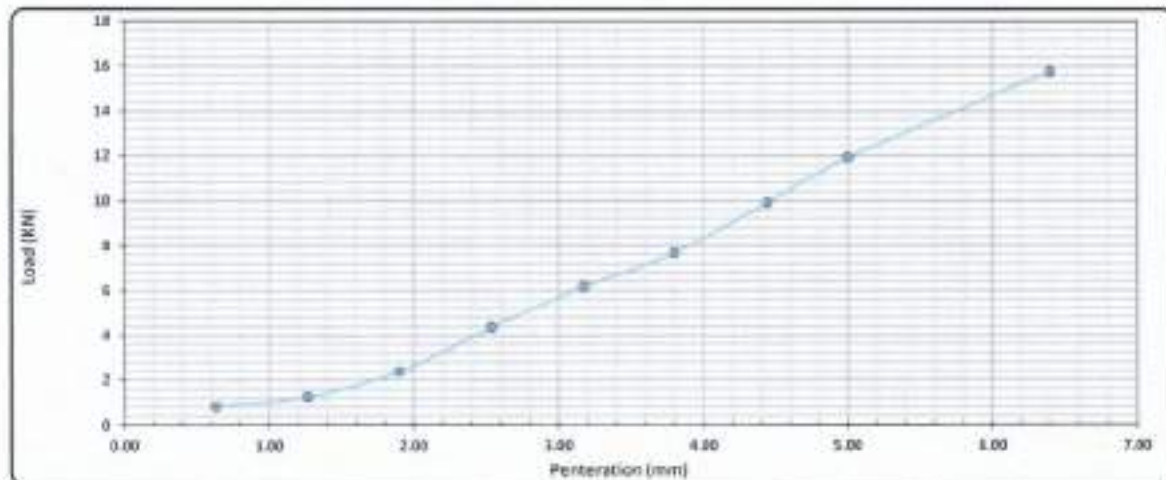
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm ³)	2320
Mold WT. (gm)	5910
Mold WT. + Wat WT. (gm)	10195
Wat WT. (gm)	4885
Wat Density (g/cm ³)	2.304
Dry Density (g/cm ³)	2.148
Proctor Density (g/cm ³)	2.175
Compaction %	98.8

Moisture Ratio After Compacted Mold	
Tare No.	10
Tare WT. (gm)	85.33
Tare WT. + Wet WT. (gm)	150
Tare WT. + Dry WT. (gm)	143.8
Water WT. (gm)	6.6
Dry WT. (gm)	88.1
Moisture Content %	7.5

Swelling	
Mold No.	2
Date	2/11/2023
Initial Height (mm)	8.88
Final Height (mm)	8.88
Difference	0.00
Sample Height (mm)	128.0
Swelling Ratio %	0.00%

Loading Reading :

Penetration (mm)	0.64	1.27	1.90	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (Kg)	90	140	204	485	685	852	1102	1328	1752
Load (kN)	0.8	1.3	2.4	4.4	6.2	7.7	9.9	11.9	15.8



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(kN)	(lb)	(%)	(%)	(%)	85 % and ab. %
2.50	6.37	15.4	32.7%	99	98	31.4%
5.00	11.93	29.0	58.6%			57.1%

Lab Specialist

Name :

Sign :

Lab Engineer

Name : Ahmed Hafeem

Sign :



Consultant Engineer

Name :

Sign :



MATERIAL INSPECTION REQUEST



الهيئة العامة
للبنية التحتية
(GARBL)



Location Name	Contractor Company		Designer Company	
Electric express train	AL-HAYAH COMPANY		k.k	
Issued by Contractor	Name	Sign	Date	Time
	Eng. Ahmed TAWFIK		07-11-2023	
Contractor reference	HA - (4) 07-11-2023			
Received by ER		MIR	☐ C1 ☐ C2 ☐ C3 ☐ D0 ☐ MM ☐ YY ☐ HH ☐ MM	

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

Description of Materials	FILL MATERIAL RESULTS		
Location to be Used	From	To	LAYER
	510+520	511+100	REPLACEMENT FILL LAYER -1.25 FROM T.O.E
	511+120	511+480	REPLACEMENT FILL LAYER -1.00 FROM T.O.E

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	05-11-2023	
2	Classification	m³	5000	05-11-2023	
3	Proctor & O.m.c	m³	5000	06-11-2023	
4	L.L & P.L & PI	m³	5000	05-11-2023	
5	C.B.R	m³	5000	07-11-2023	

Comments by:	Comments by:
A sample has been taken from fill material by K.K office to (Al Tawakol laboratory) and the results founded meet the specifications and accepted.	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK		07-11-2023	
QA/QC *	Abdullah SAMY			
GARB**				
Comments by				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST



المملكة العربية
السعودية
وزارة النقل والبنى التحتية
(GARBE)



Location Name	Contractor Company		Designer Company							
Electric express train	AL- HAYAH Company		k.k							
Issued by Contractor	Name	Sign	Date	Time						
	Eng. Ahmed TAWFIK		07-11-2023							
Contractor Reference	HA - (4) - 07-11-2023									
Received by ER		MAR	C1	C2	C3	DD	MM	YY	HH	MM
						07	11	23		

NB: Package 1 only (Package 2 via Content)				
The following test result are attached for review				
Description of Materials	Soil (A-1-B)			
Location to be Used	K.P (510+500)			
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	13.8	
4	ASTM D 4318	Atterberg limit	N. PI	
5	ASTM D 2974	Moisture content	6 %	
6	ASTM D 1557	Modified proctor	2.18	
7	ASTM D 1883	CBR	59.6%	
Comments by:			Comments by:	

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK		07-11-2023	
Contractor QA/QC *	Abdullah SAMY			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

Operating lap:

Al Tawkol Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	5/11/2023	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (4)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	5000m ³	

1-visual inspection test

2-Gradient test

4-gradation of bulk materials				SAMPLE WEIGHT [gm]		23200.00		gm	table classify
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS	soil classify
Mass retained (g)	0.0	0.0	0.0	1523.0	2145.0	2856.0	2756.0		CLASS A1-b
Cumulative Retained (g)	0.0	0.0	0.0	1523.0	3668.0	6524.0	9280.0	13920.0	PRO 2.18
Cumulative Retained %	0.0	0.0	0.0	6.6	15.8	28.1	40.3		WC 6%
Cumulative Passing %	100.0	100.0	100.0	93.4	84.2	71.9	59.0		CBR 59.6 %
									CORR PRO -
									CORR WC -

3-soft material gradation				WT.OF sample		500.00		gm
sieve size	#10	#40	#200					
Cumulative Retained (g)	45.00	175.00	385.00					
Cumulative Retained %	9.00	35.00	77.00					
Cumulative Passing %	91.00	65.00	23.00					

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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	100.0	100.0	93.4	84.2	71.9	60.0	54.6	39.0	13.80
										<15

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

Contractor

ENG

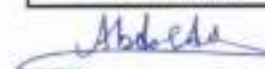
SIGN

Ahmed Hafeem




المكتب المركزي للتطوير الاقتصادي
للمواصلات (GAE)

Consultant



 	Electric Express Train - HSR		 
	From El Ain El Sokhna City To El Alamein - MATROUH		
	Section - 7 From FOKA TO MARSA MATROUH		
From Station 508+000 To Station 508+177			

MODIFIED PROCTOR TEST ASTM D1557

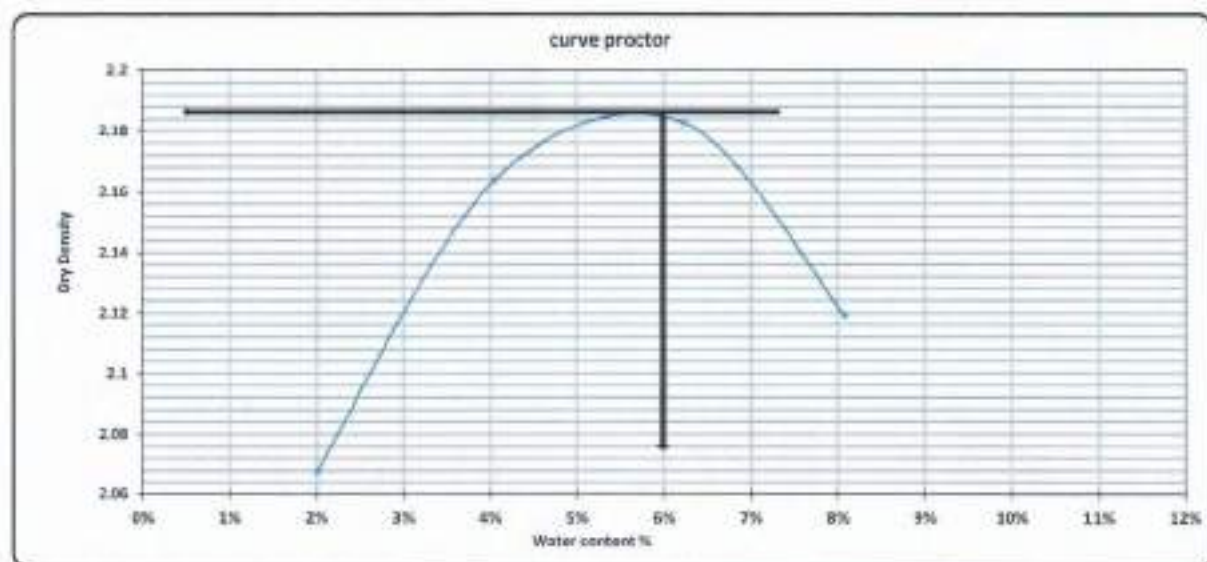
TESTING DATE:	6/11/2023	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Haysh (4)	Material	fill material layer	
NAME COMPANY	AL Haysh		quantity	5000m³	

Weight of empty mold :	5620.8
Mold Volume:	2124.8

MAX Dry Density	2.19
Water content %	7.5%

trial no :	1	2	3	4	
Wt. Of Molds wet soil	10100.0	10403.0	10545.0	10485	
WT. WET SOIL	4491.0	4783.0	4925.0	4865.0	
Wt. Density	2.109	2.252	2.319	2.290	

Tare No.	8	7	6	5	4	3	2	1		
Tare wt.	51.21	55.22	53.33	54.23	52.91	53.91	56.33	63.33		
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	148.20	148.00	146.30	146.20	144.21	144.45	143.20	143.50		
Wt. Of water	1.8	2.0	3.7	3.8	5.8	5.6	6.8	6.5		
Wt. Of dry soil	97.0	92.8	93.0	92.0	91.3	90.4	86.9	78.2		
Water content %	1.9%	2.2%	4.0%	4.1%	6.3%	6.1%	7.5%	8.3%		
AV. Water content %	2.0%		4.1%		6.2%		8.1%			
Dry Density	2.868		2.164		2.183		2.119			



Contractor

ENG Ahmed Hamed
SIG



Consultant

Abdullah

California Bearing Ratio TEST

Testing Date :	7/11/2023	Code	FROM STA :	510+000	511+500
Location :	K.P (510+500)	AL Hayah (4)	Material	Fill material	
Company Name	AL Hayah		quantity	5000m ³	

:- Test Results

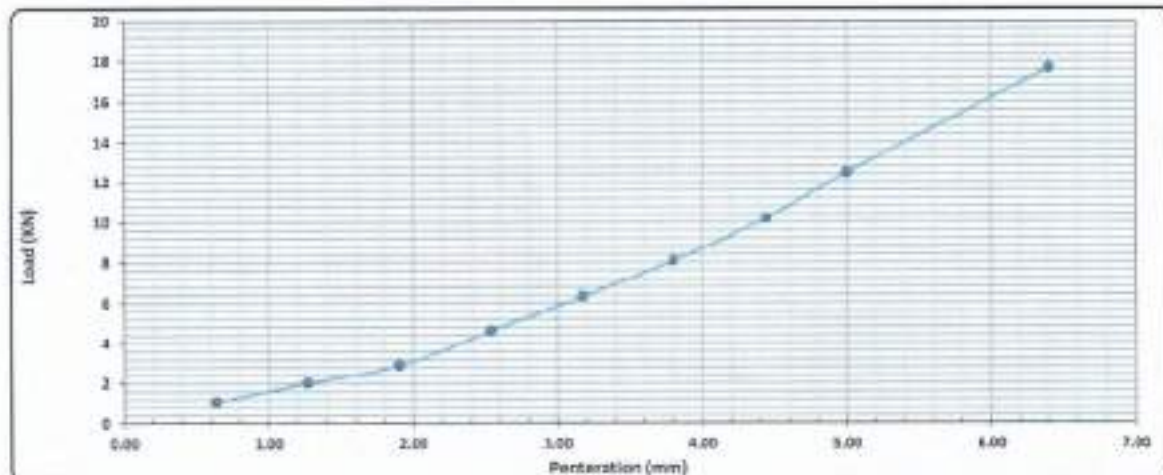
Compaction % for Mold	
Mold No.	2
Moist Vol. (cm ³)	2175
Mold WT. (gms)	5280
Mold WT. + Wet WT. (gms)	10175
Wet WT. (gms)	4974
Wet Density (g/cm ³)	2.292
Dry Density (g/cm ³)	2.164
Proctor Density (g/cm ³)	2.198
Compaction %	99.2

Moisture Ratio After Compacted Mold	
Mass of mold	11
Wet WT. (gms)	95.83
Wet WT. + Wet WT. (gms)	198
Wet WT. + Dry WT. (gms)	144.7
Water WT. (gms)	5.3
Dry WT. (gms)	89.4
Moisture Content %	5.9

Swelling	
Mold No.	2
Date	7/11/2023
Initial Height (mm)	6.88
Final Height (mm)	6.88
Difference	6.88
Sample Height (mm)	128.0
Swelling Ratio %	6.88%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.08	6.40
Load Reading (Kg)	128	223	321	512	782	896	1152	1285	1983
Load (KN)	1.3	2.0	2.9	4.6	6.3	8.1	10.2	12.5	17.7



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(KN)	(kN)	(%)	(%)	(%)	95 % نسبة 44 %
2.58	4.6	13.4	34.3%	99	92	33.0%
5.08	12.47	20.9	62.2%			59.2%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :

Attested Room



المختبر المركزي

Consultant Engineer

Name :

Sign :

Location Name	Contractor Company		Designer Company							
Electric express train	AL-HAYAH COMPANY		k.k							
Issued by Contractor	Name	Sign	Date	Time						
	Eng. Ahmed TAWFIK		20-11-2023							
Contractor reference	HA - (5) 20-11-2023									
Received by ER	MIR		C1	C2	C3	DD	MM	YY	HH	MM
						20	11	23		

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

Description of Materials	FILL MATERIAL RESULTS				
Location to be Used	From	To	LAYER		
	510+500	511+120	REPLACEMENT FILL LAYER -1.00 FROM T.O.E		
	511+320	511+500	REPLACEMENT FILL LAYER -0.75 FROM T.O.E		
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	18-11-2023	
2	Classification	m³	5000	18-11-2023	
3	Proctor & O.m.c	m³	5000	19-11-2023	
4	L.L & P.L & PI	m³	5000	18-11-2023	
5	C.B.R	m³	5000	20-11-2023	
Comments by:			Comments by:		
A sample has been taken from fill material by K.K office to (Al Tawakol laboratory) and the results founded meet the specifications and accepted.					
APPROVAL STATUS					
Organisation	Name	Sign	Date	A-AWC-R	
Contractor	Eng. Ahmed TAWFIK		20-11-2023		
QA/QC *	Hassan				
GARB**					
Comments by					
Employers Representative					

* Designer
 ** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST



Location Name	Contractor Company			Designer Company		
Electric express train	AL- HAYAH Company			k.k		
Issued by Contractor	Name	Sign	Date	Time		
	Eng. Ahmed TAWFIK		20-11-2023			
Contractor Reference	HA - (5) - 20-11-2023					
Received by ER		MAR	C1	C2	C3	DD MM YY HH MM
						20 11 23

NB: Package 1 only (Package 2 via Content)				
The following test result are attached for review				
Description of Materials	Soil (A-1-A)			
Location to be Used	K.P (510+500)			
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	8.93	
4	ASTM D 4318	Atterberg limit	N, PI	
5	ASTM D 2974	Moisture content	6 %	
6	ASTM D 1557	Modified proctor	2.17	
7	ASTM D 1883	CBR	60%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Ahmed TAWFIK		20-11-2023	
Contractor QA/QC *	Hasan			
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only



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 505+177

Operating lap

Al Tawko Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	18/11/2023	code	ZONE	510+000	511+500
LOCATION	K.P (510+500)	AL Hayah (5)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	5000m³	

1-visual inspection test

2-Gradient test

1-gradation of bulk materials

			SAMPLE WEIGHT [gm]		20745.00		gm			table classify
sieve size	2 "	1.5 "	1 "	3/4 "	3/1 "	3/8 "	# 4	PASS		soil classify
Mass retained (g)	0.0	0.0	1552.0	2356.0	3752.0	3348.0	3362.0		CLASS	A-1-A
Cumulative Retained (g)	0.0	0.0	1552.0	3908.0	7660.0	11008.0	14360.0	6385.0	PRO	2.17
Cumulative Retained %	0.0	0.0	7.5	18.8	36.9	53.1	69.2		WC	5%
Cumulative Passing %	100.0	100.0	92.5	81.2	63.1	46.9	30.78		CBR	60%
									CORR PRO	-
			WT.OF sample		500.00		gm			CORR WC
sieve size	#10	#40	#200							-
Cumulative Retained (g)	50.00	195.00	355.00							
Cumulative Retained %	10.00	39.00	71.00							
Cumulative Passing %	90.00	61.00	29.00							

2-soft material gradation

sieve size	#10	#40	#200						
Cumulative Retained (g)	50.00	195.00	355.00						
Cumulative Retained %	10.00	39.00	71.00						
Cumulative Passing %	90.00	61.00	29.00						

3-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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	100.0	92.5	81.2	63.1	46.9	30.8	27.7	18.8	3.82
										<15

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

Contractor

ENG
SIGN

Ahmed Hileom

Consultant

Hasan
20/11/2023

	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		

MODIFIED PROCTOR TEST ASTM D1557

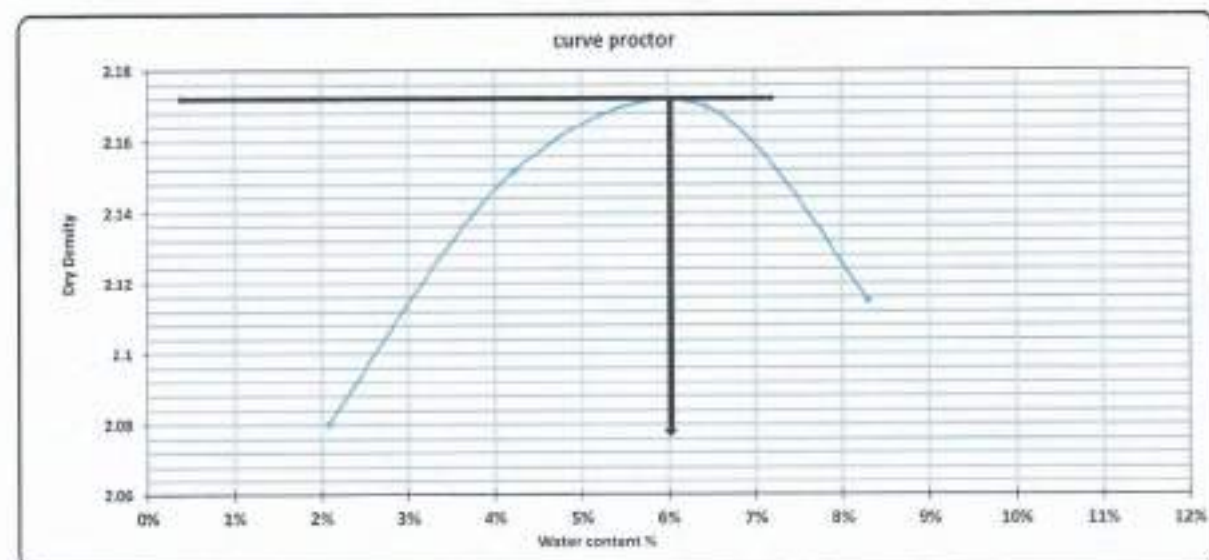
TESTING DATE:	19/11/2023	code	ZONE	510+000	511+500
LOCATION:	K.P (510+500)	AL Hayah (S)	Material	fill material layer	
NAME COMPANY	AL Hayah		quantity	5000m³	

Weight of empty mold :	5620.0
Mold Volume:	2124.0

MAX Dry Density:	2.17
Water content %:	6.4%

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10120.0	10383.0	10625.0	10485	
WT. WET SOIL	4510.0	4763.0	4965.0	4965.0	
Wt. Density	2.121	2.242	2.309	2.290	

Tare No.	1	2	3	4	5	6	7	8		
Tare wt.	52.51	50.52	54.21	55.22	55.36	55.21	51.23	55.36		
Wt. Of wet soil & tare	158.8	158.8	159.0	159.0	159.0	159.0	159.0	158.8		
Wt. Of dry soil & tare	145.08	145.10	146.70	146.80	144.72	144.21	142.88	142.48		
Wt. Of water	2.0	1.9	3.8	4.0	5.8	5.8	7.2	7.6		
Wt. Of dry soil	95.7	91.8	92.0	92.8	88.9	91.8	91.6	87.9		
Water content %	2.1%	2.1%	4.1%	4.3%	6.5%	6.4%	7.9%	8.7%		
AV. Water content %	2.1%		4.2%		6.4%		8.3%			
Dry Density	2.088		2.152		2.170		2.155			



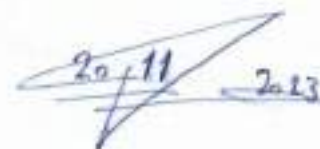
Contractor

ENG Ahmed Halem

SIG



Consultant



20/11/2023



Electric Express Train - HSR



California Bearing Ratio TEST

Testing Date :	20/11/2023	Code	FROM STA.:	510+000	511+500
Location :	R.P (510+500)	AL Hayah (5)	Material	fill material	
Company Name	AL Hayah		quantity	5000m ³	

Test Results

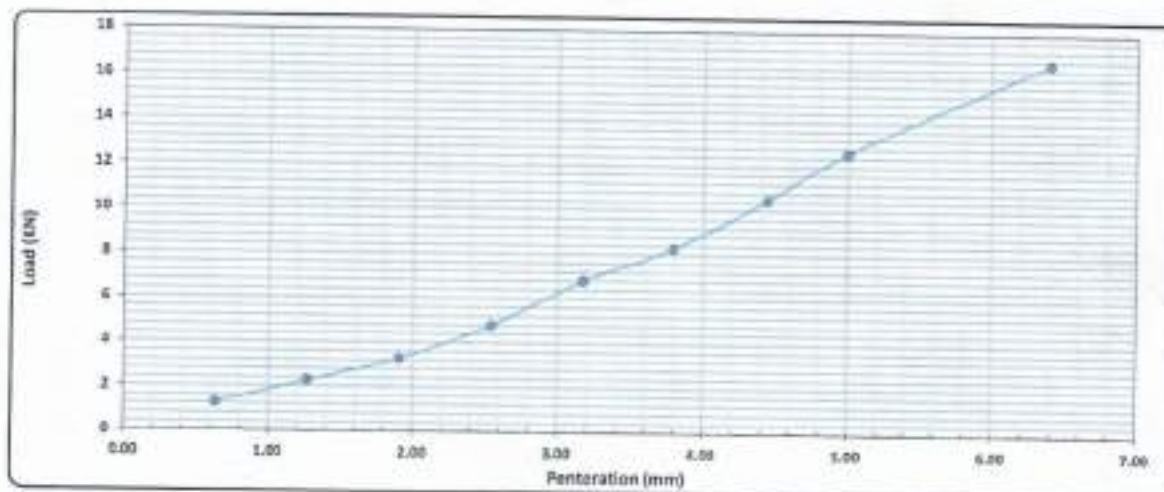
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm ³)	2310
Mold WT. (gm)	5310
Mold WT. + Wet WT. (gm)	10075
Wet WT. (gm)	5068
Wet Density (g/cm ³)	2.182
Dry Density (g/cm ³)	2.063
Theoretical Density (g/cm ³)	2.170
Compaction %	95.2

Moisture Ratio After Compacted Mold	
Mass of oven	19
Tare WT. (gm)	88.43
Tare WT. + Wet WT. (gm)	170
Tare WT. + Dry WT. (gm)	144.7
Wet WT. (gm)	81.5
Dry WT. (gm)	89.3
Moisture Content %	5.8

Swelling	
Mold No.	1
Date	20/11/2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0.00
Sample Height (mm)	250.0
Swelling Ratio %	0.00%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.08	5.69
Load Reading (Kg)	100	252	268	502	796	920	1163	1400	1852
Load (kN)	1.5	2.3	3.3	4.8	7.8	8.3	10.5	12.6	16.7



Calculations : -

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(kN)	(kN)	(%)	(%)	(%)	95 % Soil %
2.50	4.78	3.4	25.9%	100	85	34.2%
5.00	12.60	20.8	62.9%			60.0%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :

Ahmed Hameed

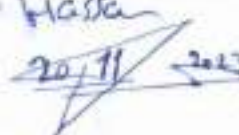


Consultant Engineer

Name :

Sign :

Hasan





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

Operating tap

Al Tawkol Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	5/9/2023	code	ZONE	510+500	510+700
LOCATION			Material	Bed Excavation	
NAME COMPANY	Al Hayah				

-visual inspection test

-Gradient test

gradation of bulk materials				SAMPLE WEIGHT (gm)		21445.00		gm	table classify
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS	soil classify
Mass retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	5830.0		CLASS
Cumulative Retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	5830.0	15615.0	proc
Cumulative Retained %	0.0	0.0	0.0	0.0	0.0	0.0	27.2		OMC
Cumulative Passing %	100.0	100.0	100.0	100.0	100.0	100.0	72.81		12.60

soft material gradation			WT. OF sample		500.00		gm
sieve size	#10	#40	#200				
Cumulative Retained (g)	65.00	145.00	220.00				
Cumulative Retained %	13.00	29.00	44.00				
Cumulative Passing %	87.00	71.00	56.00				

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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	100.0	100.0	100.0	100.0	100.0	72.8	63.3	51.7	48.78

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	33.35%	28.95%	4.39%

Contractor

Signature of Contractor
مهندس محمد عبد الحليم
مهندس
المجلس القومي للمهندسين رقم (1) 188

Consultant

Signature of Consultant
5/9/2023

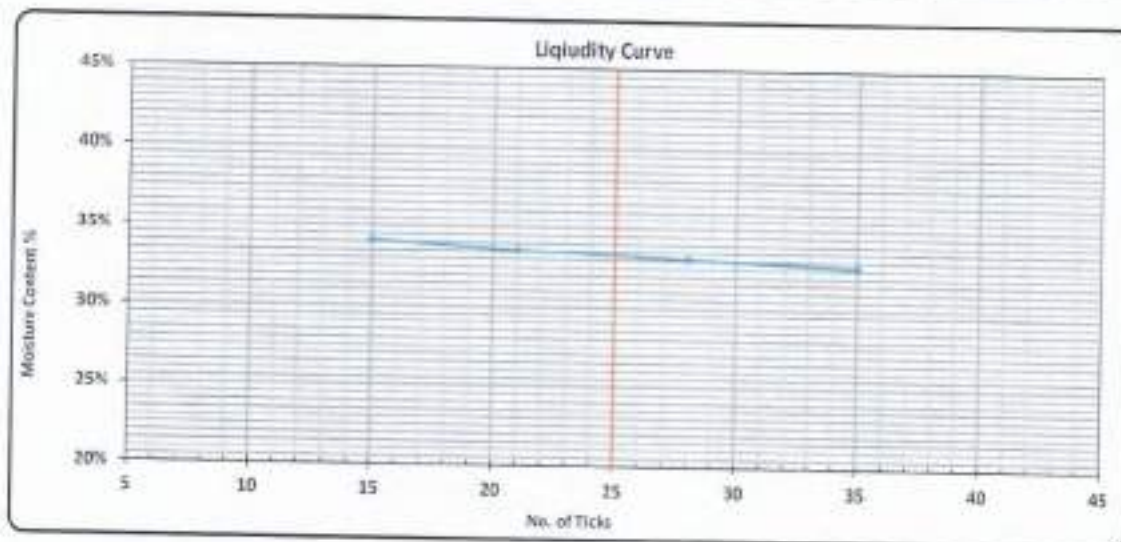
 	Electric Express Train - HSR	 
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Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	5-9-2023	Code:	STATION	510-500	510-700
Location:			Material:	Bed Excavation	
Company Name	Al Hayah				

Testing Results :-

Test	Liquid Limit				Plastic Limit	
No. of Ticks	35	28	21	15	-	-
Tare No.	17	8	18	3	11	6
Tare WT. (gm)	56.57	57.08	55.44	55.80	55.34	54.97
Tare WT. + Wet WT. (gm)	71.15	73.37	70.95	68.55	57.17	57.01
Tare WT. + Dry WT. (gm)	67.56	69.32	67.48	65.33	56.77	56.54
Water WT. (gm)	3.59	4.05	3.90	3.22	0.40	0.47
Dry WT. (gm)	10.99	12.24	11.61	9.44	1.43	1.57
Moisture Content %	32.7%	33.1%	33.6%	34.1%	28.0%	29.9%
Average %					29.0%	



L.L.	P.L.	P.I.
33.55%	28.95%	4.39%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : 5/9/23
Sign :	Sign :	Sign :





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 560+177



MODIFIED PROCTOR TEST ASTM D1557

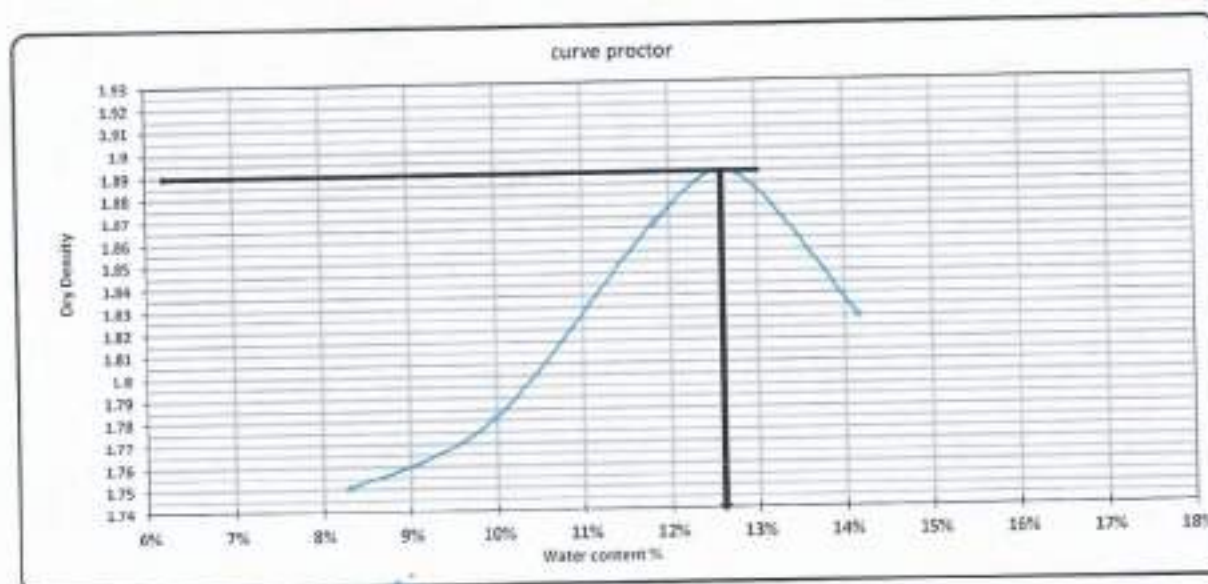
TESTING DATE:	6/9/2023	code	Station	510+500	510+700
LOCATION:			Material	Bed Excavation	
NAME COMPANY:	AL HAYAH				

Weight of empty mold :	3455.0
Mold Volume:	960.0

MAX Dry Density	1.89
Water content %	12.6%

trial no :	1	2	3	4	5
Wt. Of Mold + wet soil	5275.0	5335.0	5400.0	5500	5455
Wt. WET SOIL	1820.0	1880.0	2005.0	2045.0	2000.0
Wt. Density	1.896	1.958	2.080	2.130	2.083

Tare No.	11	7	5	10	2	23	21	1	22	1
Tare wt.	54.79	43.81	50.29	55.34	52.64	54.46	54.75	57.92	54.75	57.92
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
Wt. Of dry soil & tare	142.77	142.57	141.45	141.48	139.84	139.78	139.16	139.63	138.2	138.0
Wt. Of water	7.2	7.4	8.5	8.5	10.2	10.2	10.8	10.4	11.8	12.0
Wt. Of dry soil	88.0	88.8	85.2	86.1	87.0	85.3	84.4	81.7	83.4	80.7
Water content %	8.2%	8.4%	10.8%	9.9%	11.7%	12.0%	12.8%	12.7%	14.2%	14.1%
AV. Water content %	8.3%		10.8%		11.8%		12.8%		14.1%	
Dry Density	1.781		1.780		1.808		1.889		1.825	



Contractor

Signature of Contractor

Consultant

Signature of Consultant

Operating lap

Al Tawkol Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	5-09-2023	code	ZONE	511+300	511+500
LOCATION			Material	Bed Excavation	
NAME COMPANY	AL HAYAH				

-visual inspection test

-Gradient test

I-gradation of bulk materials				SAMPLE WEIGHT (g)		37477.00		gm	table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	soil classify
Mass retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	5475.0		CLASS A4
Cumulative Retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	5475.0	32002.0	PRO 1.86
Cumulative Retained %	0.0	0.0	0.0	0.0	0.0	0.0	14.6		WC 10.2
Cumulative Passing %	100.0	100.0	100.0	100.0	100.0	100.0	85.4		

I-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	65.00	166.00	270.00					
Cumulative Retained %	13.00	33.60	54.00					
Cumulative Passing %	87.00	66.40	46.00					

-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	100.0	100.0	100.0	100.0	100.0	85.4	74.3	56.7	36.3

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

Contractor

Eng

Ahmed Haseem

Consultant

5/9/2023

	Electric Express Train - HSR		
	From El Ain El Sokhna City To El Alamein - MATROUH		
	Section - 7 From FOKA TO MARSA MATROUH		
From Station 304+000 To Station 368+177			

PROCTOR TEST

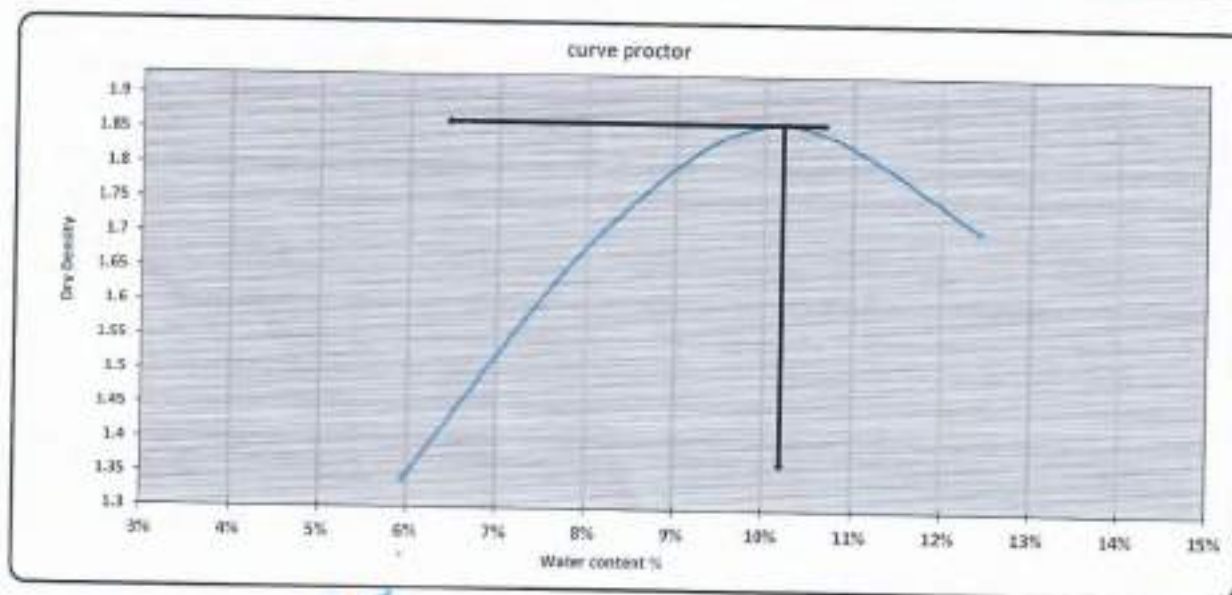
TESTING DATE:	6/9/2023	Station	511+300	511+500
LOCATION		Material	Bed Excavation	
NAME COMPANY	AL HAYAH			

Weight of empty mold :	3455.0
Mold Volume:	960.0

MAX Dry Density	1.86
Water content %	10.2%

trial no :	1	2	3	4	
Wt. Of Mold + wet soil	4829.0	5125.0	5415.0	5360	
Wt. WET SOIL	1365.0	1770.0	1970.0	1845.0	
Wt. Density	1.412	1.844	2.052	1.922	

Tare No.	2	3	4	5	6	7	8	9		
Tare wt.	82.33	55.41	54.21	54.12	52.31	55.33	55.61	56.1		
Wt. Of wet soil & tare	159.0	159.0	159.0	159.0	150.0	150.0	159.0	150.0		
Wt. Of dry soil & tare	144.7	144.5	142.8	142.7	141.0	143.2	139.8	139.4		
Wt. Of water	5.3	5.5	7.2	7.3	9.0	8.8	10.2	10.6		
Wt. Of dry soil	92.4	89.1	88.6	88.6	89.7	86.9	84.2	83.1		
Water content %	5.7%	6.2%	8.1%	8.2%	10.1%	10.2%	12.1%	12.8%		
AV. Water content %	6.0%		8.2%		10.2%		12.4%			
Dry Density	1.342		1.704		1.86		1.709			



Contractor

Signature
 المهندس المصطفى رقم (1)

Consultant

Signature 2023

Operating lap

Al Tawkol Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	5-09-2023	code	ZONE	511+100	510+300
LOCATION			Material	Bed Excavation	
NAME COMPANY	AL HAYAH				

-visual inspection test

-Gradient test

I-gradation of bulk materials			SAMPLE WEIGHT (g)			35195.00		gm	table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	6632.0		CLASS	A4
Cumulative Retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	6632.0	28563.0	PRO	1.84
Cumulative Retained %	0.0	0.0	0.0	0.0	0.0	0.0	18.8		WC	10.4
Cumulative Passing %	100.0	100.0	100.0	100.0	100.0	100.0	81.2			

I-soft material gradation			WT.OF sample		500.00		gm
sieve size	10	40	200				
Cumulative Retained (g)	60.00	160.00	265.00				
Cumulative Retained %	12.00	32.00	53.00				
Cumulative Passing %	88.00	68.00	47.00				

-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	100.0	100.0	100.0	100.0	100.0	81.2	71.4	55.2	38.1

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

Contractor

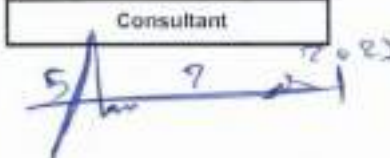
Eng

Ahmed Haleem




المجلس القومي للمهندسين
الهيئة العامة للطرق والنقل
الهيئة العامة للموانئ
الهيئة العامة للغمرات
الهيئة العامة للمطارات

Consultant



	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		

PROCTOR TEST

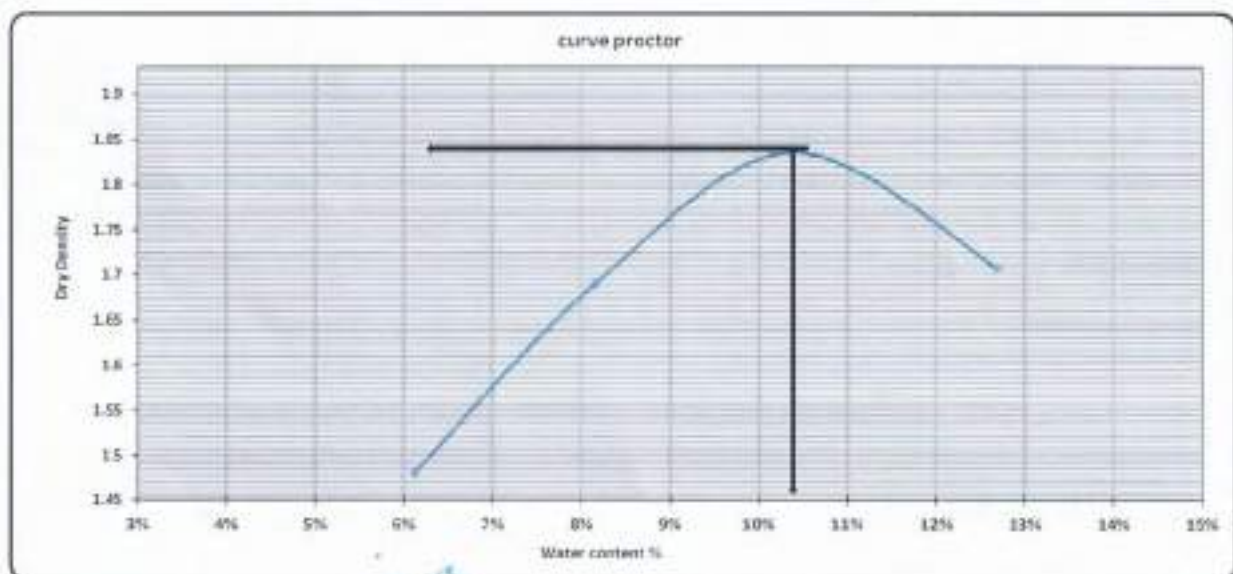
TESTING DATE:	6/9/2023		Station	511+100	511+300
LOCATION			Material	Bed Excavation	
NAME COMPANY	AL HAYAH				

Weight of empty mold:	3455.0
Mold Volume:	560.0

MAX Dry Density	1.84
Water content %	10.4%

trial no :	1	2	3	4	
Wt. Of Mold + wet soil	4963.0	5208.0	5400.0	5392	
WT, WET SOIL	1508.0	1755.0	1945.0	1847.0	
Wt. Density	1.571	1.828	2.826	1.924	

Tare No.	11	12	13	14	15	16	17	18		
Tare wt.	85.62	85.42	82.32	84.12	82.12	83.21	86.32	86.3		
Wt. Of wet soil & tare	150.0	158.0	160.0	158.0	158.0	150.0	150.0	158.0		
Wt. Of dry soil & tare	144.0	144.5	142.7	142.7	148.8	140.9	139.5	138.4		
Wt. Of water	5.4	5.5	7.3	7.3	9.2	9.1	10.5	10.6		
Wt. Of dry soil	89.0	89.1	98.4	88.6	88.7	87.7	83.2	83.1		
Water content %	6.1%	6.2%	8.1%	8.2%	10.4%	10.4%	12.6%	12.8%		
AV Water content %	6.1%		8.2%		10.4%		12.7%			
Dry Density	1.488		1.690		1.84		1.707			



Contractor

Handwritten signature and blue official stamp of the contractor.

Consultant

Handwritten signature and blue official stamp of the consultant.



Electric Express Train - HSR
 From El Ain El Sokhna City To El Alamein - MATROUH
 Section - 7 From FOKA To MARS MATROUH
 From Station 504+000 To Station 508+177



Operating lap: Al Tawkol Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	5/9/2023	code	ZONE	510+700	510+900
LOCATION			Material	Bed Excavation	
NAME COMPANY	Al Hayah				

-visual inspection test

1-Gradient test

1-gradation of bulk materials				SAMPLE WEIGHT [gm]		22465.00		gm	table classify	soil classify
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS		
Mass retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	7995.0		CLASS	A-2-6
Cumulative Retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	7995.0	14470.0	proc	1.885
Cumulative Retained %	0.0	0.0	0.0	0.0	0.0	0.0	35.6		OMC	13.60
Cumulative Passing %	100.0	100.0	100.0	100.0	100.0	100.0	64.41			

3-soft material gradation			WT.OF sample		500.00		gm
sieve size	#10	#40	#200				
Cumulative Retained (g)	60.00	145.00	270.00				
Cumulative Retained %	12.00	29.00	54.00				
Cumulative Passing %	88.00	71.00	46.00				

2-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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	100.0	100.0	100.0	100.0	100.0	64.4	56.7	45.7	29.62

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	27.35%	17.22%	10.13%

Contractor

Consultant

[Signature]
 المهندس محمد عبد الحليم
 المهندس محمد عبد الحليم
 المهندس محمد عبد الحليم

[Signature]
 5/9/2023

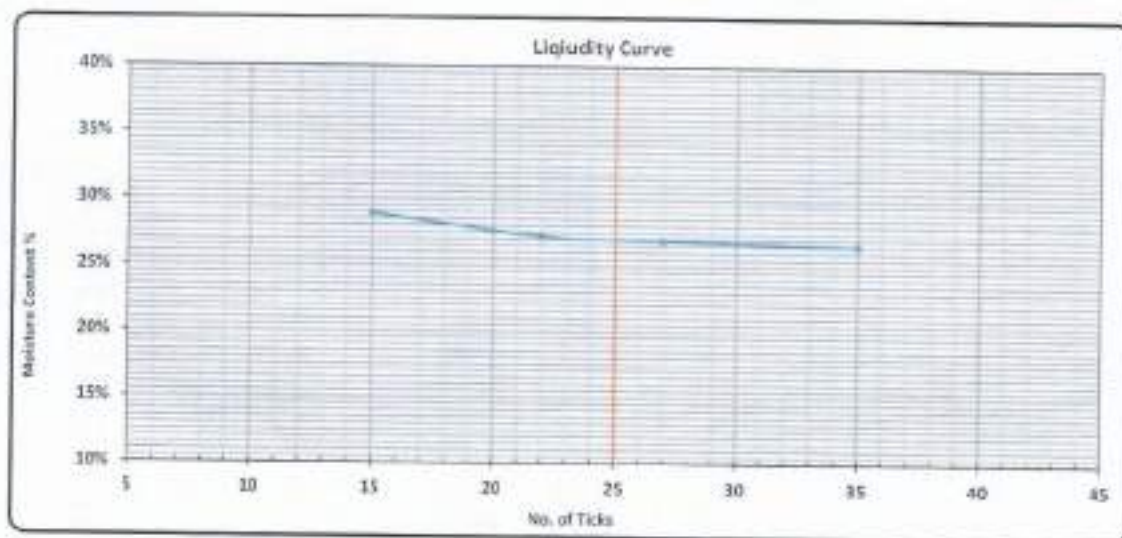
 	Electric Express Train - HSR	 
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Plasticity and Liquidity Test - Atterberg Limits

Testing Date:	12-06-2023	Code:	STATION :	510+500	510+500
Location:	(511+070)		Material:	Bed Excavation	
Company Name:	Al Hayah				

Testing Results :-

Test	Liquid Limit				Plastic Limit	
No. of Ticks	35	27	22	15	-	-
Tare No.	12	14	15	18	4	9
Tare WT. (gm)	53.13	53.59	54.37	56.57	55.37	54.74
Tare WT. + Wet WT. (gm)	76.12	65.63	73.01	71.26	58.01	56.52
Tare WT. + Dry WT. (gm)	71.39	63.08	69.02	67.97	57.62	56.26
Water WT. (gm)	4.82	2.85	3.99	3.29	0.39	0.26
Dry WT. (gm)	18.17	9.49	14.65	11.40	2.25	1.52
Moisture Content %	26.5%	26.9%	27.2%	28.9%	17.5%	17.1%
Average %					17.2%	



U.L.	P.L.	P.I.
27.35%	17.22%	10.13%

Lab. Specialist	Lab. Engineer	Consultant Engineer
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Name :

Name :

Name :

Sign :

Sign :

Sign :



 	Electric Express Train - HSR		 	
	From El Ain El Sokhna City To El Alamein - MATROUH			
	Section - 7 From FOKA TO MARSA MATROUH			
From Station 534+300 To Station 553+177				

MODIFIED PROCTOR TEST ASTM D1557

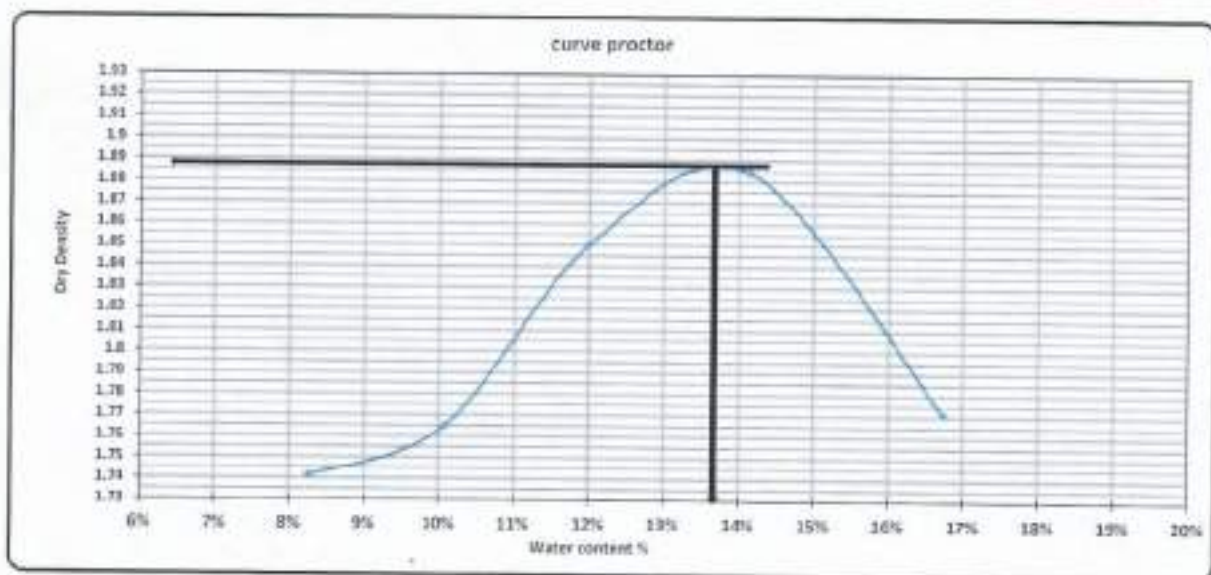
TESTING DATE:	6/9/2023	code:	Station	510+700	510+900
LOCATION			Material	Bed Excavation	
NAME COMPANY	AL HAYAH				

Weight of empty mold :	3455.8
Mold Volume:	950.0

MAX Dry Density	1.885
Water content %	13.6%

trial no :	1	2	3	4	4
Wt. Of Mold+ wet soil	8268.0	8329.0	8445.0	8520	8440
WT, WET SOIL	1813.0	1865.0	1990.0	2065.0	1985.0
Wt. Density	1.885	1.903	1.973	1.971	1.968

Tare No.	1	2	3	4	5	6	7	8	9	10
Tare wt.	55.21	54.21	55.28	54.63	54.21	55.32	55.86	54.47	53.28	54.21
Wt. Of wet soil & tare	159.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
Wt. Of dry soil & tare	142.82	142.63	143.20	141.40	139.80	139.78	138.40	138.10	136.2	136.2
Wt. Of water	7.2	7.4	6.8	6.6	10.2	10.2	11.6	11.9	13.8	13.8
Wt. Of dry soil	87.0	88.4	85.9	80.8	85.6	84.5	82.5	83.8	82.9	82.0
Water content %	8.2%	8.3%	10.2%	9.9%	11.9%	12.1%	14.1%	14.2%	16.6%	16.8%
AV. Water content %	8.3%		10.1%		12.0%		14.1%		16.7%	
Dry Density	1.741		1.768		1.851		1.885		1.771	



Contractor

[Handwritten signature and blue circular stamp of the contractor]

Consultant

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Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - 1 From FDKA To MARSA MATROUH
From Station 504+000 To Station 568+177



Operating lap Al Tawkol Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	5/9/2023	code	ZONE	510+900	511+100
LOCATION			Material	Bed Excavation	
NAME COMPANY	Al Hayah				

-visual inspection test

-Gradient test

1-gradation of bulk materials

			SAMPLE WEIGHT (gm)		35905.00		gm	table classify	
sieve size	2 "	1.5 "	1 "	3/4 "	2/1 "	3/8 "	# 4	PASS	soil classify
Mass retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	5270.0		CLASS A-4
Cumulative Retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	5270.0	30635.0	proc 1.910
Cumulative Retained %	0.0	0.0	0.0	0.0	0.0	0.0	14.7		OMC 11.80
Cumulative Passing %	100.0	100.0	100.0	100.0	100.0	100.0	85.32		

1-soft material gradation

			WT.OF sample		500.00		gm
sieve size	#10	#40	#200				
Cumulative Retained (g)	55.00	155.00	260.00				
Cumulative Retained %	11.00	31.00	52.00				
Cumulative Passing %	89.00	69.00	48.00				

2-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	5.0	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	100.0	100.0	100.0	100.0	100.0	85.3	75.9	58.9	40.95

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

Contractor

Consultant

[Handwritten signature and blue official stamp of the contractor]

[Handwritten signature and date 5/9/2023 of the consultant]

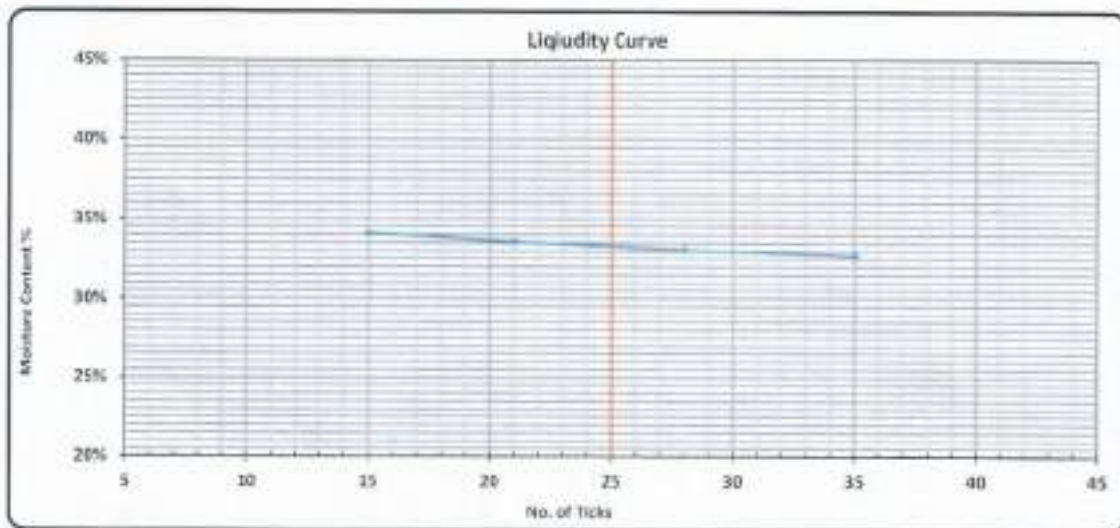
 	Electric Express Train - HSR	 
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Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	5-9-2023	Code:	STATION	510+980	513+000
Location:			Material:	Bed Excavation	
Company Name	Al Hayah				

Testing Results :-

Test	Liquid Limit				Plastic Limit	
No. of Ticks	35	28	21	15	-	-
Tare No.	17	8	18	3	11	6
Tare WT. (gm)	56.57	57.08	55.44	55.89	55.34	54.97
Tare WT. + Wat. WT. (gm)	71.15	73.37	70.95	68.55	57.17	57.01
Tare WT. + Dry WT. (gm)	67.56	69.32	67.05	65.33	56.77	56.54
Water WT. (gm)	3.59	4.05	3.90	3.22	0.40	0.47
Dry WT. (gm)	10.99	12.24	11.61	9.44	1.43	1.57
Moisture Content %	32.7%	33.1%	33.6%	34.1%	28.0%	29.9%
Average %					29.0%	



L.L.	P.L.	P.I.
33.35%	28.95%	4.39%

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

Name :

Name :

Name :

Sign :

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 504+000 To Station 508+177			

MODIFIED PROCTOR TEST ASTM D1557

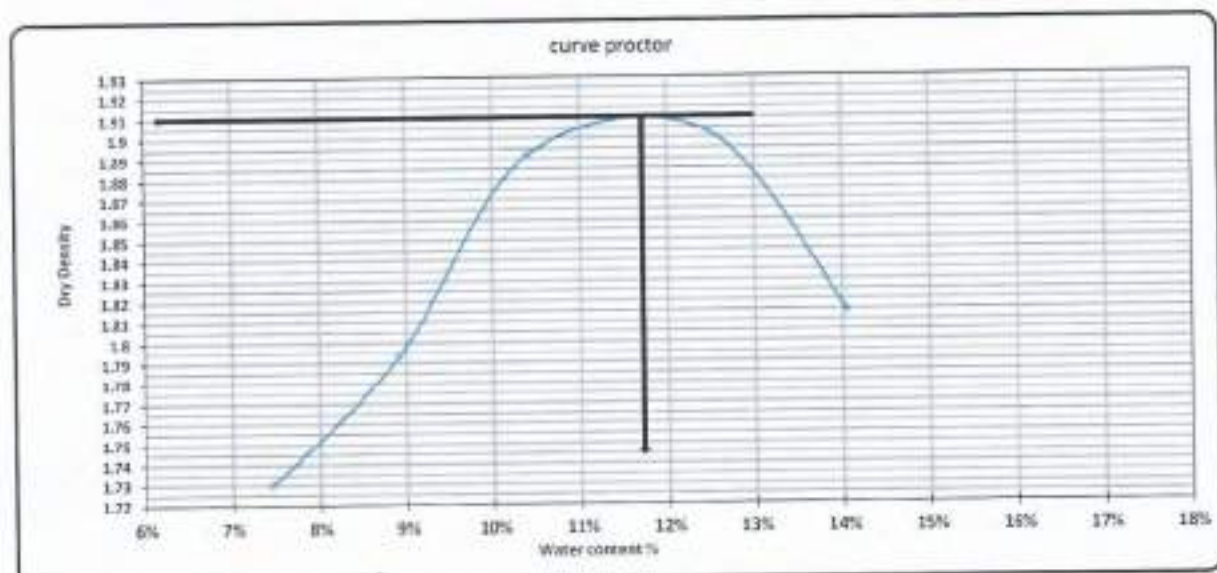
TESTING DATE:	6/9/2023	code	Station	510+900	511+100
LOCATION			Material	Bed Excavation	
NAME COMPANY	AL HAYAH				

Weight of empty mold :	3455.0
Mold Volume:	968.0

MAX Dry Density	1.91
Water content %	11.8%

trial no :	1	2	3	4	5
Wt. Of Mold + wet soil	5240.0	5330.0	5400.0	5510	5442
WT. WET SOIL	1785.0	1875.0	1905.0	2055.0	1987.0
Wt. Density	1.858	1.903	1.988	2.141	2.070

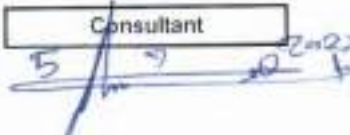
Tare No.	13	14	15	16	17	18	12	11	10	1
Tare wt.	56.32	54.21	54.06	55.36	56.32	54.7	55.21	55.67	56.7	55.21
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
Wt. Of dry soil & tare	143.23	143.62	142.12	142.33	141.80	141.20	139.19	139.63	138.2	138.6
Wt. Of water	6.8	6.4	7.9	7.7	8.0	8.8	10.8	10.4	11.8	11.4
Wt. Of dry soil	86.9	86.4	87.5	87.8	84.7	86.5	86.0	81.0	81.9	83.4
Water content %	7.8%	7.1%	9.0%	8.8%	10.0%	10.2%	12.6%	12.4%	14.5%	13.6%
AV. Water content %	7.5%		8.9%		10.4%		12.5%		14.0%	
Dry Density	1.734		1.793		1.892		1.903		1.815	



Contractor

Signature


Consultant

Signature




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



Operating lap: Al Tawkef Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	5-09-2023	code	ZONE	511+100	510+300
LOCATION			Material	Bed Excavation	
NAME COMPANY	AL HAYAH				

-visual inspection test

-Gradient test

I-gradation of bulk materials			SAMPLE WEIGHT (g)		35195.00		gm	table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS
Mass retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	8632.0	CLASS A4
Cumulative Retained (g)	0.0	0.0	0.0	0.0	0.0	0.0	8632.0	PRO 1.84
Cumulative Retained %	0.0	0.0	0.0	0.0	0.0	0.0	18.8	WC 10.4
Cumulative Passing %	100.0	100.0	100.0	100.0	100.0	100.0	81.2	

I-soft material gradation			WT.OF sample		500.00		gm
sieve size	10	40	200				
Cumulative Retained (g)	60.00	160.00	265.00				
Cumulative Retained %	12.00	32.00	53.00				
Cumulative Passing %	88.00	68.00	47.00				

I-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	100.0	100.0	100.0	100.0	100.0	81.2	71.4	55.2	35.1

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

Contractor

Eng

Ahmed Haleem



Consultant

5/9/2023

 	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 508+177		

PROCTOR TEST

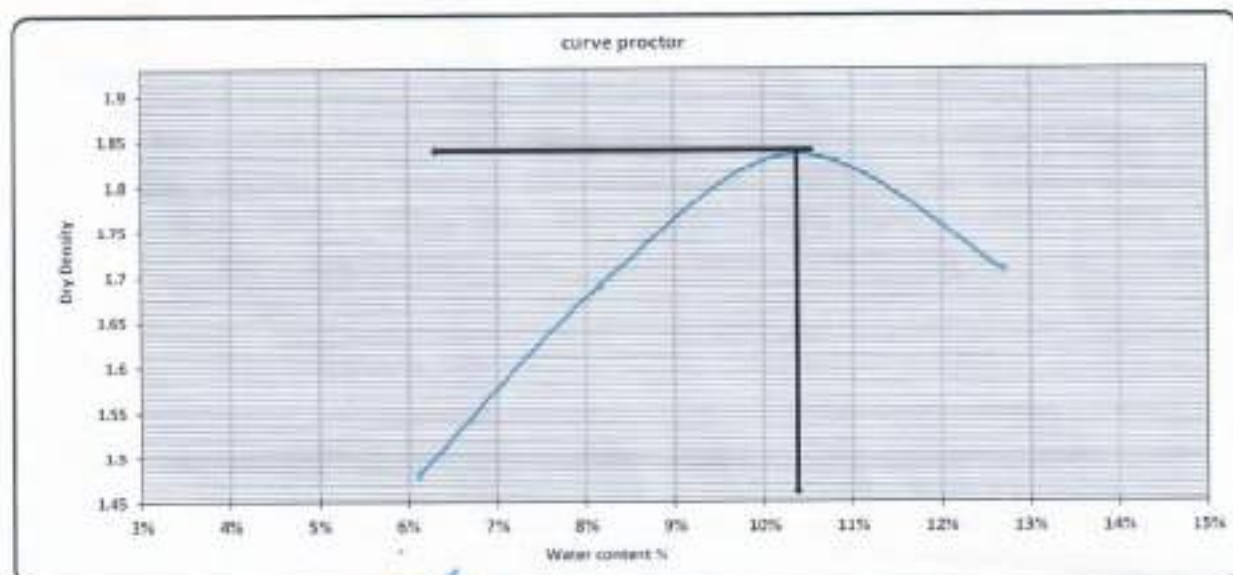
TESTING DATE:	6/9/2023	CODE	Station:	511+100	511+300
LOCATION			Material	Bed Excavation	
NAME COMPANY	AL HAYAH				

Weight of empty mold :	3455.0
Mold Volume:	940.0

MAX Dry Density	1.84
Water content %	10.4%

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	4963.0	5210.0	5430.0	5392	
WT. WET SOIL	1508.0	1755.0	1945.0	1947.0	
Wt. Density	1.571	1.828	2.026	1.924	

Tare No.	11	12	13	14	15	16	17	18		
Tare wt.	55.62	55.42	52.32	54.12	52.12	53.21	56.32	56.3		
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	144.6	144.5	142.7	142.7	140.8	140.9	139.5	139.4		
Wt. Of water	5.4	5.5	7.3	7.3	9.2	9.1	10.5	10.6		
Wt. Of dry soil	89.0	89.1	80.4	88.6	88.7	87.7	83.2	83.1		
Water content %	6.1%	6.2%	8.1%	8.2%	10.4%	10.4%	12.6%	12.8%		
AV. Water content %	6.15%		8.15%		10.4%		12.7%			
Dry Density	1.488		1.090		1.84		1.797			



Contractor

[Signature]

[Stamp: Ministry of Transport and Economic Affairs]

Consultant

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