

قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع : القطار الكهربائي السريع (العين السخنة - العاصمة الإدارية - العلمين - مطروح) قطاع فوكة - مطروح في المسافة من الكم 504+180 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين

رقم الهند و بيانه : ( 2-1 ) قيمة المادة المحجيرة بمشتملاتها لاعمال الاساس (prepared subgrade)

العادة المحجيرة

تنفيذ : شركة كنوز سيناء للمقاولات العامة و التوريدات

مقدار العمل السابق : 0 م 3م

| الكمية | بيان بالكميات                                  |
|--------|------------------------------------------------|
| 869.72 | الكمية طبقا لقوائم الكميات                     |
| 869.72 | اجمالي الكميات خلال فترة المستخلص الحالية (3م) |
| 869.72 | الاجمالي الكلي (م <sup>3</sup> )               |

مهندس الهيئة العامة للطرق  
والكهباري  
م / محمد عبد الله الحناوي

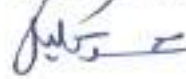
مهندس موقع الهيئة العامة  
للطرق والكهباري  
م / مازن محمد سرور

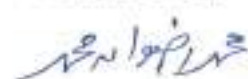
مهندس الاستشاري (xyz)  
م / محمد شهاب خليل

مهندس الشركة  
م / محمد رمضان محمد











قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع : القطار الكهربائي السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح في المسافة من الكم 180+504 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين

رقم البند و بياته : ( 2-1 ) علاوة مسافة النقل 62 كم لاعمال طبقة التأسيس [Prepared Subgrade]

علاوة مسافة النقل

تنفيذ : شركة كنوز سيناء للمقاولات العامة والتوريدات

3م

0.00

مقدار العمل السابق :

| الكمية |                                                | بيان بالكميات              |
|--------|------------------------------------------------|----------------------------|
| 869.72 |                                                | الكمية طبقا لقوائم الكميات |
| 869.72 | اجمالي الكميات خلال فترة المستخلص الحالية (م3) |                            |
| 869.72 | الاجمالي الكلي (م3)                            |                            |

مهندس الهيئة العامة للطرق  
والبحري  
م / احمد احمد عبدالله العناري

مهندس موقع الهيئة العامة  
للطرق والبحري  
م / مازن محمد سرور

مهندس الاستشاري (mpe)  
م / محمد شهاب خليل

مهندس الشركة  
م / محمد رضوان محمد



قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع : القطار الكهربائي المربع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح في المسافة من الكم 504+180 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين

رقم البند و بيانه : ( 2-3 ) رسوم الكارثة والموازن طبقاً للمادة(36) من الشروط العامة والمواصفات طبقاً لما جاء بالقائمة الموحدة لاسعار الطرق لاعمال طبقة التأسيس (Prepared Subgrade)

الكارثات والموازن

تسليم : شركة كنوز سيناء للمقاولات العامة و التوريدات

3م

0.00

مقدار العمل السابق :

| الكمية | بيان بالكميات                                  |
|--------|------------------------------------------------|
| 869.72 | الكمية طبقاً لقوائم الكميات                    |
| 869.72 | اجمالي الكميات خلال فترة المستخلص الحالية (3م) |
| 869.72 | الاجمالي الكلي (م <sup>3</sup> )               |

مهندس الهيئة العامة للطرق  
والمواصلات  
د / إبراهيم محمد الحادري

مهندس موقع الهيئة العامة  
للطرق والكباري  
د / مؤمن محمد سرور

مهندس الاستشاري (xyz)  
د / محمد هادي خليل

مهندس الشركة  
د / محمد رضوان محمد



قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع : القطار الكهربائي السريع (العين السخنة -العاصمة الإدارية -العلمين -مطروح) قطاع فوكة - مطروح في المسافة من الكم 504+180 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين  
رقم البند وبيانه : ( 2-1-1 ) أعمال توريد وفرش طبقة التأسيس من الأحجار الصلبة المتدرجة (Prepared Subgrade) طبقا للمواظبه عن شهر أبريل 2023  
تسليم : شركة كنوز سيناء للمقاولات العامة والتوريدات

| مقدار العمل السابق : |                                                             |     |                    |         | 0.00                   | 3م |
|----------------------|-------------------------------------------------------------|-----|--------------------|---------|------------------------|----|
| كمية                 | الابعاد ( متر )                                             |     | المواقع الكيلومتری |         | بيان الاعمال بالمقايضة |    |
|                      | مساحة المقطع                                                | طول | الى                | من      |                        |    |
| 555.96               | 4.28                                                        | 130 | 504+350            | 504+220 | القطاع الاول           |    |
| 555.96               | اجمالي الكميات خلال فترة المستخلص الحالية (م <sup>3</sup> ) |     |                    |         |                        |    |
| 555.96               | الاجمالي الكلي (م <sup>3</sup> )                            |     |                    |         |                        |    |

مهندس الهيئة العامة للطرق  
والكباري  
م / إبراهيم عبد الحفيظ جباري

مهندس موقع الهيئة العامة  
للطرق والكباري  
م / مؤمن محمد سرور

مهندس الاستشاري (xyz)  
م / محمد إيهاب خليل

مهندس الشركة  
م / محمد زهيران محمد



قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع : القطار الكهربائي السريع (العين السخنة - العاصمة الإدارية - العلمين - مطروح) قطاع فوكة - مطروح في المسافة من الكم  
504+180 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين

رقم البند و بيانه : ( 2-1-2 ) أعمال توريد وفرش طبقة التأسيس من الأحجار الصلبة المتدرجة (Prepared Subgrade) طبقا للمواصفة عن  
شهر مايو 2023

تنفيذ : شركة كنوز سيلا للمقاولات العامة والتوريدات

| الكمية | الابعاد ( متر )                                             |     | الموقع الكيلومترى |         | بيان الأعمال بالمقايضة |
|--------|-------------------------------------------------------------|-----|-------------------|---------|------------------------|
|        | مساحة المقطع                                                | طول | الى               | من      |                        |
| 313.76 | 3.92                                                        | 80  | 504+300           | 504+220 | القطاع الاول           |
| 313.76 | اجمالي الكميات خلال فترة المستخلص الحالية (م <sup>3</sup> ) |     |                   |         |                        |
| 313.76 | الاجمالي الكلي (م <sup>3</sup> )                            |     |                   |         |                        |

مهندس الهيئة العامة للطرق  
والمواصلات  
م / ابراهيم محمد كحلوني

مهندس موقع الهيئة العامة  
للطرق والمواصلات  
م / مؤمن محمد سرور

مهندس الاستشاري (xyz)  
م / محمد جمال خليل

مهندس الشركة  
م / محمد رمضان محمد

مؤمن محمد سرور

محمد جمال خليل

محمد رمضان محمد



قائمة كميات بالمستخلص جاري (2)

مشروع : القطار الكهربائي السريع (العين السخنة -العاصمة الإدارية -العلمين -مطروح) قطاع فوكة - مطروح في المسافة من الكم 504+180 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين

رقم الهند و بيانه : ( 2-2 ) قيمة المادة المحجوزة بمشتملاتها لاعمال الاساس (subballast)

المادة المحجوزة

تسفيد : شركة كنوز سيناء للمقاولات العامة و التوريدات

3م

0.00

مقدار العمل السابق :

| الكمية  | هوان بالكميات                                  |
|---------|------------------------------------------------|
| 2801.40 | الكمية طبقا لقوائم الكميات                     |
| 2801.40 | اجمالي الكميات خلال فترة المستخلص الحالية (3م) |
| 2801.40 | الاجمالي الكلي (م <sup>3</sup> )               |

مهندس الهيئة العامة  
للطرق والكباري  
م / ابراهيم محمد الحناوي

مهندس موقع الهيئة العامة  
للطرق والكباري  
م / مازن محمد سرور

مهندس الاستشاري (XYZ)  
م / محمد محمد خليل

مهندس شركة  
م / محمد رضوان محمد



قائمة كميات بالمستخلص جاري (2)

مشروع : القطار الكهربائي السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح في المسافة من الكم 504+180 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين

رقم الهند و بياته : ( 2-2 ) علاوة مسافة النقل 212 كم لاعمال طبقة الاساس (subballast)

علاوة مسافة النقل

تنفيذ : شركة كنوز سيناء للمقاولات العامة والتوريدات

3م

0.00

مقدار العمل السابق :

| بيان بالكميات                                  |  | الكمية  |
|------------------------------------------------|--|---------|
| الكمية طبقا للوزن الكمي                        |  | 2801.40 |
| اجمالي الكميات خلال فترة المستخلص الحالية (3م) |  | 2801.40 |
| الاجمالي الكلي (م <sup>3</sup> )               |  | 2801.40 |

مهندس الهيئة العامة  
للطرق والمواصلات  
م / إبراهيم محمد عيسى

مهندس موقع الهيئة العامة  
للطرق والمواصلات  
م / مومن محمد بوزور

مهندس الاستشاري (xyz)  
م / محمد شهاب مازن

مهندس الشركة  
م / محمد رمضان محمد



قائمة كميات بالمستخلص جاري (2)

مشروع : القطار الكهربائي السريع (العين السخنة - العاصمة الإدارية - العلمين - مطروح) قطاع فوكة - مطروح في المسافة من الكم 504+180 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين

رقم الهند و بيانه : ( 2-2 ) رسوم الكارثة والموازن طبقاً للمادة (36) من الشروط العامة والمواصفات طبقاً لما جاء بالقائمة الموحدة لأسعار الطرق لاعمال طبقة الاساس

الكارثات والموازن

تسقيف : شركة كنوز سيناء للمعاولات العامة و التوريدات

3م

0.00

مقدار العمل السابق :

| الكمية  | بيان بالكميات                                  |
|---------|------------------------------------------------|
| 2801.40 | الكمية طبقاً لقوائم الكميات                    |
| 2801.40 | اجمالي الكميات خلال فترة المستخلص الحالية (3م) |
| 2801.40 | الاجمالي : الكمي (م <sup>3</sup> )             |

مهندس الهيئة العامة للطرق  
والكباري  
م / إبراهيم محمد علي

مهندس موقع الهيئة العامة  
للطرق والكباري  
م / مؤمن محمد سرور

مهندس الاستشاري (xyz)  
م / محمد شهاب خليل

مهندس الشركة  
م / محمد رمضان محمد

مؤمن محمد سرور

محمد خليل

محمد رمضان محمد



قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع : القطار الكهربائي السريع (العين السخنة - العاصمة الادارية - العلمين - مطروح) قطاع فوكة - مطروح في المسافة من الكم 504+180 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين

رقم البند و بيانه : ( 2-2 ) أعمال توريد وفرش طبقة الاساس من الأحجار الصلبة المدرجة (subballast) طبقا للمفاوضة عن شهر مايو 2023

تنفيذ : شركة كتوز سيناء للمطاولات العامة والتوريدات

| مقدار العمل السابق :                                        |                     | 0.00    |                 | 3م           |         |
|-------------------------------------------------------------|---------------------|---------|-----------------|--------------|---------|
| بيان الاعمال والمقاييس                                      | المواقع الكيلومترية |         | الابعاد ( متر ) |              | الكمية  |
|                                                             | من                  | الى     | طول             | مساحة المقطع |         |
| القطاع الاول                                                | 504+350             | 504+650 | 300             | 4.67         | 1400.70 |
| القطاع الثاني                                               | 504+650             | 504+950 | 300             | 4.67         | 1400.70 |
| اجمالي الكميات خلال فترة المستخلص الحالية (م <sup>3</sup> ) |                     |         |                 |              |         |
| 2801.40                                                     |                     |         |                 |              |         |
| الاجمالي الكلي (م <sup>3</sup> )                            |                     |         |                 |              |         |
| 2801.40                                                     |                     |         |                 |              |         |

مهندس الهيئة العامة للطرق والكهرباء  
م / إبراهيم محمد علي

مهندس الهيئة العامة للطرق والكهرباء  
م / مؤمن محمد سرور

مهندس الاستشاري (xyz)  
م / محمد شهاب خليل

مهندس الشركة  
م / محمد رضوان محمد

مؤمن محمد سرور

محمد شهاب خليل

محمد رضوان محمد



قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع : القطار الكهربائي السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح في المسافة من الكم 504+180 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين

رقم البند و بيانه : ( 3-1 ) بالمتر المسطح أعمال توريد وصب خرسانة عادية سمك 15سم لارتفاع 10متر لحماية الاكتاف والميول الجانبية طبقا للمفاوضه عن شهر مايو 2023

تسفيد : شركة كنوز سيناء للمقاولات العامة والتوريدات

مقدار العمل السابق : 0.0 م 3

| الكمية  | الابعاد ( متر )                                             |     | المواقع الكيلومتری |         | بيان الاعمال بالمقايضة |
|---------|-------------------------------------------------------------|-----|--------------------|---------|------------------------|
|         | مساحة المقطع                                                | طول | الى                | من      |                        |
| 361.94  | 3.619                                                       | 100 | 504+420            | 504+320 | القطاع الأول           |
| 361.94  | 3.619                                                       | 100 | 504+520            | 504+420 | القطاع الثاني          |
| 434.33  | 3.619                                                       | 120 | 504+640            | 504+520 | القطاع الثالث          |
| 361.94  | 3.619                                                       | 100 | 504+740            | 504+640 | القطاع الرابع          |
| 506.72  | 3.619                                                       | 140 | 504+880            | 504+740 | القطاع الخامس          |
| 434.33  | 3.619                                                       | 120 | 505+000            | 504+880 | القطاع السادس          |
| 2461.20 | اجمالي الكميات خلال فترة المستخلص الحالية (م <sup>2</sup> ) |     |                    |         |                        |
| 2461.20 | الاجمالي الكلي (م <sup>2</sup> )                            |     |                    |         |                        |

مهندس الهيئة العامة للطرق  
والجسور  
م / إبراهيم محمد الحناوي

مهندس موقع الهيئة العامة  
للطرق والجسور  
م / مؤمن محمد سرور

مهندس الإستشاري (xyz)  
م / محمد جمال خليل  
محمد خليل

مهندس الشركة  
م / محمد رضوان محمد  
محمد رضوان محمد



قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع : القطار الكهربائي السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح في المسافة من الكم 504+180 الى الكم 505+000 بطول 0.82 كيلو متر اتجاه العلمين

رقم البند و بيانه : ( 2-3 ) بالمتر المكعب اعمال توريد وصب خرسانه عاديه لقدمات الحماية و الميول الجانبيه طبقا للمفاوضه عن شهر مايو 2023

تنفيذ : شركة كنوز سيناء للمقاولات العامه والتوريدات

مقدار العمل السابق : 0.0 م 3

| الكمية | الابعاد ( متر )                                             |     | الموقع الكيلومترى |         | بيان الاعمال بالمقايسة |
|--------|-------------------------------------------------------------|-----|-------------------|---------|------------------------|
|        | مساحة المقطع                                                | طول | الى               | من      |                        |
| 14.70  | 0.15                                                        | 100 | 504+320           | 504+220 | القطاع الأول           |
| 15.00  | 0.15                                                        | 100 | 504+420           | 504+320 | القطاع الثاني          |
| 15.00  | 0.15                                                        | 100 | 504+520           | 504+420 | القطاع الثالث          |
| 18.00  | 0.15                                                        | 120 | 504+640           | 504+520 | القطاع الرابع          |
| 15.00  | 0.15                                                        | 100 | 504+740           | 504+640 | القطاع الخامس          |
| 21.00  | 0.15                                                        | 140 | 504+880           | 504+740 | القطاع السادس          |
| 18.00  | 0.15                                                        | 120 | 505+000           | 504+880 | القطاع السابع          |
| 116.70 | اجمالي الكميات خلال فترة المستخلص الحالية (م <sup>3</sup> ) |     |                   |         |                        |
| 116.70 | الاجمالي الكلي (م <sup>3</sup> )                            |     |                   |         |                        |

مهندس الهيئة العامة للطرق  
والكباري  
م / ابراهيم عبد الله الحناوي

مهندس موقع الهيئة العامة  
للطرق والكباري  
م / مؤمن محمد سرور

مهندس الاستشاري (xyz)  
م / محمد شهاب خليل

مهندس الشركة  
م / محمد رضوان محمد

مؤمن محمد سرور

محمد شهاب خليل

محمد رضوان محمد

# MATERIAL INSPECTION REQUEST



|                      |                             |                    |                                                                                                                                                                                                                                            |    |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |
|----------------------|-----------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|----|----|----|----|----|-------|----|----|--|--|--|--|--|
| Contractor Company   | KNOOZ SINA COMPANY          |                    | Designer Company                                                                                                                                                                                                                           |    |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |
| Issued by Contractor | Name<br>Eng. Ahmed Abdallah | Date<br>26-12-2022 | Time                                                                                                                                                                                                                                       |    |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |
| Contractor reference | KS1 P.SUB GRADE (1)         |                    |                                                                                                                                                                                                                                            |    |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |
| Received by ER       | A. I                        | 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>KP504</td> <td>EW</td> <td>CS</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | C1 | C2 | C3 | DD | MM | YY | HH | MM | KP504 | EW | CS |  |  |  |  |  |
| C1                   | C2                          | C3                 | DD                                                                                                                                                                                                                                         | MM | YY | HH | MM |    |    |    |    |       |    |    |  |  |  |  |  |
| KP504                | EW                          | CS                 |                                                                                                                                                                                                                                            |    |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |

|        |                                |                             |                                                          |
|--------|--------------------------------|-----------------------------|----------------------------------------------------------|
| CODE-1 | S1 to S21<br>Station Reference | D1 to S3<br>Depot Reference | Kp XXX Note<br>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                    |            | From                                                                 | To              |  |  |
|                                                                                                                                                     | 504+900           | 505+000 (+0.25)       |            | 504+580                                                              | 504+640 (+0.25) |  |  |
|                                                                                                                                                     | 504+800           | 504+900 (+0.25)       |            | 504+520                                                              | 504+580 (+0.25) |  |  |
|                                                                                                                                                     | 504+760           | 504+800 (+0.25)       |            | 504+440                                                              | 504+520 (+0.25) |  |  |
|                                                                                                                                                     | 504+640           | 504+700 (+0.25)       |            | 504+340                                                              | 504+440 (+0.25) |  |  |
|                                                                                                                                                     | 504+700           | 504+760 (+0.25)       |            | 504+260                                                              | 504+340 (+0.25) |  |  |
|                                                                                                                                                     | 504+180           | 504+260 (+0.25)       |            |                                                                      |                 |  |  |
| 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    | m <sup>3</sup>        | 3500       | 23-12-2022                                                           |                 |  |  |
| 2                                                                                                                                                   | Classification    | m <sup>3</sup>        | 3500       | 23-12-2022                                                           |                 |  |  |
| 3                                                                                                                                                   | Proctor & O.m.c   | m <sup>3</sup>        | 3500       | 24-12-2022                                                           |                 |  |  |
| 4                                                                                                                                                   | L.L & P.L & PI    | m <sup>3</sup>        | 3500       | 24-12-2022                                                           |                 |  |  |
| 5                                                                                                                                                   | C.B.R             | m <sup>3</sup>        | 3500       | 26-12-2022                                                           |                 |  |  |
| Comments by:                                                                                                                                        |                   |                       |            | Comments by:                                                         |                 |  |  |
| A sample has been taken from fill material by K.K office to ( Al MAHGOUB laboratory ) and the results founded meet the specifications and accepted. |                   |                       |            | TEST RESULTS FOR ESTIMATED QUANTITIES OF ABOUT 3500 m <sup>3</sup> . |                 |  |  |
| APPROVAL STATUS                                                                                                                                     |                   |                       |            |                                                                      |                 |  |  |
| Organisation                                                                                                                                        | Name              | Sign                  | Date       | A-AWC-R                                                              |                 |  |  |
| Contractor                                                                                                                                          | AHMED ABDALLAH    | <i>Ahmed</i>          | 26-12-2022 |                                                                      |                 |  |  |
| QA/QC *                                                                                                                                             | Ahmed Abo Zaid    | <i>Ahmed</i>          | 26-12-2022 |                                                                      |                 |  |  |
| GARB **                                                                                                                                             | HUSSEIN FOUAD     | <i>Husseini</i>       | 26-12-2022 |                                                                      |                 |  |  |
| Comments by                                                                                                                                         |                   |                       |            |                                                                      |                 |  |  |
| Employers Representative                                                                                                                            | A. I              | <i>A. I</i>           | 26/12/22   | A                                                                    |                 |  |  |

\* Designer

\*\* Alignment / Bridges: Culvert Only

| Location Name          | Contractor Company                |      |            | Designer Company |    |    |    |    |
|------------------------|-----------------------------------|------|------------|------------------|----|----|----|----|
| Electric express train | KNOOZ SINA COMPANY                |      |            | k.k              |    |    |    |    |
| Issued by Contractor   | Name                              | Sign | Date       | Time             |    |    |    |    |
|                        | Ahmed Abdallah                    |      | 26-12-2022 |                  |    |    |    |    |
| Contractor Reference   | KS1 P.SUB GRADE- (1) - 26-12-2022 |      |            |                  |    |    |    |    |
| Received by ER         | A-1                               |      | MAR        | C1               | C2 | C3 | DD | MM |
|                        |                                   |      |            | KPS04            | EW | CS |    |    |

| NB:Package 1 only (Package 2 via Content )        |               |                       |                             |         |
|---------------------------------------------------|---------------|-----------------------|-----------------------------|---------|
| The following test result are attached for review |               |                       |                             |         |
| Description of Materials                          |               | Soil ( A-1-a )        |                             |         |
| Location of stock                                 |               | K.p (504+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 | 6.5 %                       |         |
| 4                                                 | ASTM D 4318   | Atterberg limit       | N.P                         |         |
| 5                                                 | ASTM D 2974   | Moisture content      | 7.5 %                       |         |
| 6                                                 | ASTM D 1557   | Modified proctor      | 2.21                        |         |
| 7                                                 | ASTM D 1883   | CBR                   | 70.40 %                     |         |
| Comments by:                                      |               |                       | Comments by:                |         |
|                                                   |               |                       |                             |         |
|                                                   |               |                       |                             |         |

| APPROVAL STATUS          |                |      |            |         |
|--------------------------|----------------|------|------------|---------|
| Organisation             | Name           | Sign | Date       | A-AWC-R |
| Contractor               | Ahmed Abdel    |      | 26-12-2022 |         |
| Contractor QA/QC *       | Ahmed Abo Zaid |      | 26-12-2022 |         |
| GARB**                   | Hussien Fouad  |      | 26-12-2022 |         |
| Employers Representative | A-1            |      | 26/12/22   | A       |

\* 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 564+177



### PARTICLE SIZE DISTRIBUTION OF SOIL

|              |             |               |          |                    |         |
|--------------|-------------|---------------|----------|--------------------|---------|
| TESTING DATE | 23-12-2022  | code          | ZONE     | 504+180            | 505+000 |
| LOCATION     | K.P 504+500 | K51-P-S.G(01) | Material | PREPARED sub grade |         |
| NAME         | knouz sina1 |               |          |                    |         |
| COMPANY      |             |               |          |                    |         |

1-visual inspection test

2-Gradient test

| A-gradation of bulk materials |       |        |        | SAMPLE WEIGHT [g] |        | 21336.00 | gm      | table classify |               |
|-------------------------------|-------|--------|--------|-------------------|--------|----------|---------|----------------|---------------|
| sieve size                    | 2     | 1.5    | 1      | 4/3               | 2/1    | 8/3      | # 4     | PASS           | soil classify |
| ass retained (g)              | 676.0 | 957.0  | 3153.0 | 1559.0            | 3577.0 | 3945.0   | 3744.0  |                | A-1-a         |
| ulative Retain                | 676.0 | 1633.0 | 4786.0 | 6345.0            | 9922.0 | 13867.0  | 17611.0 | PRO            | 2.21          |
| ulative Retain                | 3.2   | 7.7    | 22.4   | 29.7              | 46.5   | 65.0     | 82.5    | WC             | 7.50          |
| ve Passing %                  | 96.8  | 92.3   | 77.6   | 70.3              | 53.5   | 35.0     | 17.5    | CBR            | 70.40         |
|                               |       |        |        |                   |        |          |         | L.A            | 36.66         |

| B-soft material gradation |        |        |        | WT.OF sample |  | 500.00 | gm |
|---------------------------|--------|--------|--------|--------------|--|--------|----|
| sieve size                | 10     | 40     | 200    |              |  |        |    |
| Retained (g)              | 205.00 | 251.00 | 315.00 |              |  |        |    |
| ve Retained %             | 41.00  | 50.20  | 63.00  |              |  |        |    |
| ve Passing %              | 59.00  | 49.80  | 37.00  |              |  |        |    |

| 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 |
| ve Passing %       | 96.8 | 92.3 | 77.6 | 70.3 | 53.5 | 35.0 | 17.5 | 10.3 | 8.7   | 6.5   |
|                    |      |      |      |      |      |      |      |      |       |       |
|                    |      |      |      |      |      |      |      |      |       |       |
|                    |      |      |      |      |      |      |      |      |       |       |

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



Consultant

mohamed elsaied  
 m-elsaied  
 26-12-2022



|                                                                                                                                                                     |                                                    |  |  |  |                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | 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

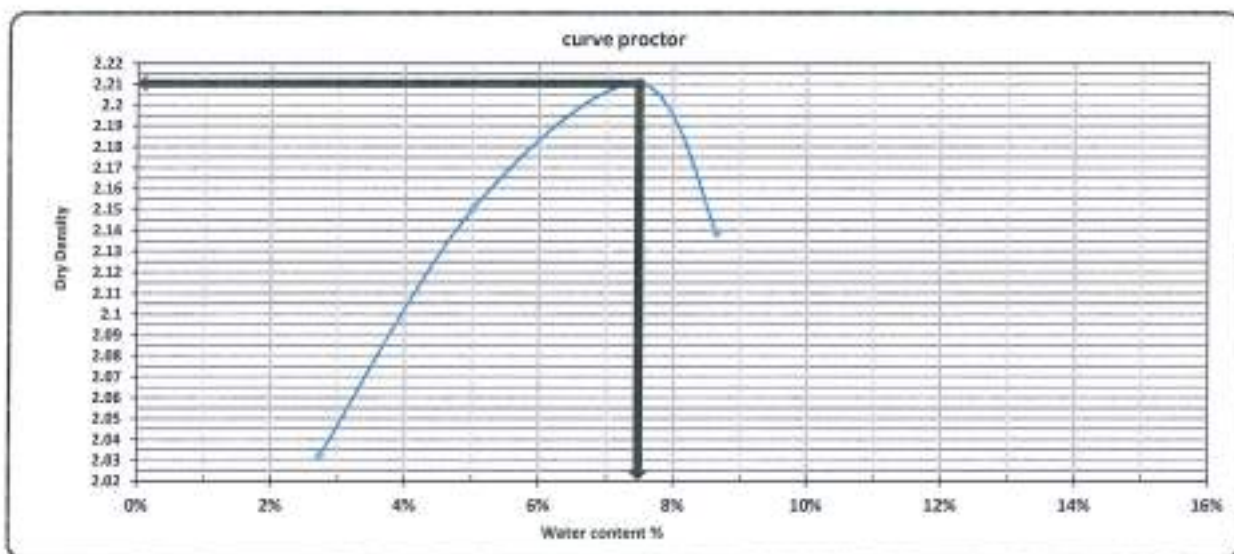
|               |             |               |          |                    |         |
|---------------|-------------|---------------|----------|--------------------|---------|
| TESTING DATE: | 24-12-2022  | code          | ZONE     | 504+180            | 505+000 |
| LOCATION      | K.P 504+800 | KS1-P-5.G(01) | Material | PREPARED sub grade |         |
| NAME COMPANY  | knouz sinaa |               |          |                    |         |

|                        |        |                 |      |
|------------------------|--------|-----------------|------|
| Weight of empty mold : | 6854.0 | MAX Dry Density | 2.21 |
| Mold Volume:           | 2832.0 | Water content % | 7.5  |

3150

|                        |         |         |         |        |   |
|------------------------|---------|---------|---------|--------|---|
| trial no :             | 1       | 2       | 3       | 4      | 5 |
| Wt. Of Mold + wet soil | 10296.8 | 10644.3 | 10884.1 | 10776  |   |
| WT. WET SOIL           | 4242.8  | 4590.3  | 4830.1  | 4722.8 |   |
| Wt. Density            | 2.088   | 2.269   | 2.378   | 2.324  |   |

|                        |       |       |       |       |       |       |       |       |    |   |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|----|---|
| Tare No.               | 2     | 2     | 5     | 6     | 20    | 32    | 7     | 6     | 15 | 9 |
| Tare wt.               | 32    | 23.24 | 29.83 | 23.21 | 30    | 22.79 | 34.18 | 29    |    |   |
| Wt. Of wet soil & tare | 161.0 | 135.6 | 160.0 | 139.1 | 178.0 | 121.0 | 168.2 | 171.0 |    |   |
| Wt. Of dry soil & tare | 157.6 | 132.6 | 153.6 | 133.6 | 167.5 | 114.2 | 149.9 | 160.0 |    |   |
| Wt. Of water           | 3.4   | 3.1   | 6.4   | 5.5   | 10.5  | 6.8   | 18.3  | 11.0  |    |   |
| Wt. Of dry soil        | 125.6 | 109.3 | 124.6 | 110.4 | 137.5 | 91.4  | 115.7 | 131.0 |    |   |
| Water content %        | 2.7%  | 2.8%  | 5.1%  | 4.9%  | 7.6%  | 7.4%  | 8.9%  | 8.4%  |    |   |
| AV. Water content %    | 2.7%  |       | 5.0%  |       | 7.5%  |       | 8.6%  |       |    |   |
| Dry Density            | 2.032 |       | 2.151 |       | 2.210 |       | 2.139 |       |    |   |



Consultant

mohamed elsaied





## Electric Express Train - HSR



### California Bearing Ratio TEST

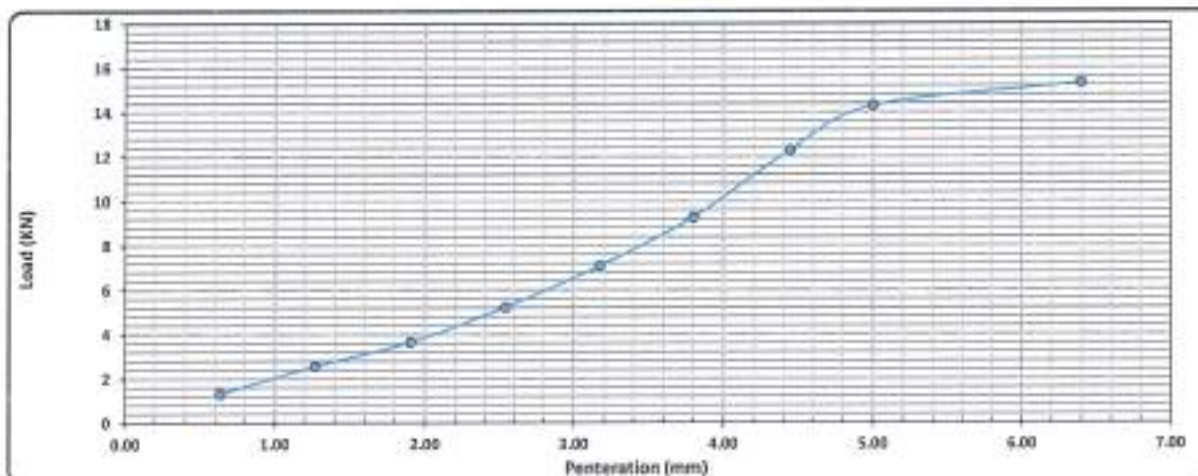
|                |             |               |            |                    |         |
|----------------|-------------|---------------|------------|--------------------|---------|
| Testing Date : | 26-12-2022  | Code          | FROM STA : | 504+180            | 505+000 |
| Location :     | K.P 504+500 | K51-P.S.G(01) | Material   | PREPARED sub grade |         |
| NAME COMPANY   | knouz sinal |               |            |                    |         |

#### - : Test Results

| Compaction % for Mold                |          | Moisture Ratio After Compacted Mold |       | Swelling            |            |
|--------------------------------------|----------|-------------------------------------|-------|---------------------|------------|
| Mold No.                             | 4        | as of test                          | 5     | Mold No.            | 5          |
| Mold Vol. (cm <sup>3</sup> )         | 2051     | Tare WT. (gms)                      | 31    | Date                | 26-12-2022 |
| Mold WT. (gms)                       | 15768    | Tare WT. + Wet WT. (gms)            | 233   | Initial Height (mm) | 3.45       |
| Mold WT. + Wet WT. (gms)             | 18473.58 | Tare WT. + Dry WT. (gms)            | 221   | Final Height (mm)   | 3.45       |
| Wet WT. (gms)                        | 4774     | Water WT. (gms)                     | 12.6  | Difference          | 0          |
| Wet Density (g/cm <sup>3</sup> )     | 2.219    | Dry WT. (gms)                       | 198.0 | Sample Height (mm)  | 120.00     |
| Dry Density (g/cm <sup>3</sup> )     | 2.180    | Moisture Content %                  | 7.4   | Swelling Ratio %    | 0%         |
| Proctor Density (g/cm <sup>3</sup> ) | 2.210    |                                     |       |                     |            |
| Compaction %                         | 99       |                                     |       |                     |            |

#### Loading Reading :

|                   |        |        |        |        |        |        |         |         |         |
|-------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| Penetration (mm)  | 0.04   | 1.27   | 1.91   | 2.54   | 3.18   | 3.80   | 4.45    | 5.00    | 6.40    |
| Load Reading (kg) | 136.00 | 261.00 | 372.00 | 512.00 | 723.00 | 945.00 | 1294.00 | 1468.00 | 1504.00 |
| Load (KN)         | 1.3    | 2.6    | 3.6    | 5.2    | 7.1    | 9.3    | 12.3    | 14.3    | 15.3    |



#### Calculations :-

| Penetration | Load  | Standard Load | CBR   | Mold - Compaction | Compaction | CBR       |
|-------------|-------|---------------|-------|-------------------|------------|-----------|
| (mm)        | (KN)  | (lb)          | ( % ) | ( % )             | ( % )      | نسبة 98 % |
| 2.50        | 5.21  | 13.4          | 39.1% | 99                | 98         | 38.7%     |
| 5.00        | 14.20 | 26.0          | 71.1% |                   |            | 70.4%     |

Lab. Specialist

Name :

Sign :



Consultant Engineer

Name :

Sign :



|                                                                                                                                                                 |                                                                                                                                        |                                                                                                                                                                                |  |                                                  |                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <br>ENGINEERING CONSULTING OFFICE<br>المكتب الاستشاري الهندسي<br>د. خالد قنديل | <br>وزارة النقل والبنى التحتية<br>جمهورية مصر العربية | <b>Electric Express Train - HSR</b><br>From El Ain El Sokhna City To El Alamein - MATROUH<br>Section - 7 From FOKA To MARSA MATROUH<br>From Station 504+000 To Station 568+177 |  | الهيئة العامة<br>للمواصفات<br>والمقاييس<br>(EGS) | <br>الهيئة العامة<br>للمواصفات<br>والمقاييس<br>(EGS) |
|                                                                                                                                                                 |                                                                                                                                        |                                                                                                                                                                                |  |                                                  |                                                                                                                                         |

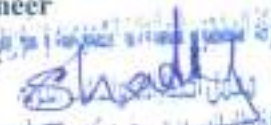
### LOS Anglos abrasion test

|                                |               |                 |            |                   |          |        |
|--------------------------------|---------------|-----------------|------------|-------------------|----------|--------|
| Testing Date :                 | 24-12-2022    | Code            | FROM STA : | 504+130           | TO STA : | 505+00 |
| Location :                     | K.P (504+500) | KS1-P.S.G ( 1 ) | material   | prepared subgrade |          |        |
| Company Name                   | knouz sina1   |                 |            |                   |          |        |
| Los Anglos abrasion AASHTO-T96 |               |                 |            |                   |          |        |

| Weight of sample before test (gm) | Weight of sample after test (gm) | Abrasion ratio (%) |
|-----------------------------------|----------------------------------|--------------------|
| 5000                              | 3167                             | 36.66              |

Lab. Specialist  
Name :

Sign :

|                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lab. Engineer</b><br>Name : <br>Sign :  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Consultant Engineer

Name : mohamed elsaid

Sign :





# MATERIAL INSPECTION REQUEST



|                      |                             |     |                                                                                                                                                                                                                                            |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
|----------------------|-----------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----|----|----|----|----|----|-------|----|----|--|--|--|--|--|--|
| Contractor Company   | <b>KNOOZ SINA COMPANY</b>   |     | Designer Company                                                                                                                                                                                                                           |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
| Issued by Contractor | Name<br>Eng. Ahmed Abdallah |     | Date<br>20-01-2023                                                                                                                                                                                                                         | Time |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
| Contractor reference | KS1 P.SUB GRADE- (2)        |     |                                                                                                                                                                                                                                            |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
| Received by ER       | A-1                         | MIR | <table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>VV</td> <td>HH</td> <td>MM</td> </tr> <tr> <td>KPS04</td> <td>EW</td> <td>CS</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | C1   | C2 | C3 | DD | MM | VV | HH | MM | KPS04 | EW | CS |  |  |  |  |  |  |
| C1                   | C2                          | C3  | DD                                                                                                                                                                                                                                         | MM   | VV | HH | MM |    |    |    |    |       |    |    |  |  |  |  |  |  |
| KPS04                | EW                          | CS  |                                                                                                                                                                                                                                            |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |

|          |                                |                             |                                                           |
|----------|--------------------------------|-----------------------------|-----------------------------------------------------------|
| CODE - 1 | S1 to S21<br>Station Reference | D1 to S3<br>Depot Reference | Kp 100X Note<br>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                    | From                                                                 | To              |      |
|                                                                                                                                                    | 504+920           | 505+000 (+0.50)       | 504+300                                                              | 504+380 (+0.50) |      |
|                                                                                                                                                    | 504+820           | 504+920 (+0.50)       | 504+220                                                              | 504+300 (+0.50) |      |
|                                                                                                                                                    | 504+700           | 504+820 (+0.50)       |                                                                      |                 |      |
|                                                                                                                                                    | 504+600           | 504+700 (+0.50)       |                                                                      |                 |      |
|                                                                                                                                                    | 504+480           | 504+600 (+0.50)       |                                                                      |                 |      |
| 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    | m <sup>3</sup>        | 3000                                                                 | 17-01-2023      |      |
| 2                                                                                                                                                  | Classification    | m <sup>3</sup>        | 3000                                                                 | 17-01-2023      |      |
| 3                                                                                                                                                  | Proctor & O.m.c   | m <sup>3</sup>        | 3000                                                                 | 18-01-2023      |      |
| 4                                                                                                                                                  | L.L & P.L & PI    | m <sup>3</sup>        | 3000                                                                 | 18-01-2023      |      |
| 5                                                                                                                                                  | C.B.R             | m <sup>3</sup>        | 3000                                                                 | 20-01-2023      |      |
| Comments by:                                                                                                                                       |                   |                       | Comments by:                                                         |                 |      |
| A sample has been taken from fill material by K.K office to ( Al TAWKOL laboratory ) and the results founded meet the specifications and accepted. |                   |                       | TEST RESULTS FOR ESTIMATED QUANTITIES OF ABOUT 3000 m <sup>3</sup> . |                 |      |
| APPROVAL STATUS                                                                                                                                    |                   |                       |                                                                      |                 |      |
| Organisation                                                                                                                                       | Name              | Sign                  | Date                                                                 | A-AWC-R         |      |
| Contractor                                                                                                                                         | AHMED ABDALLAH    |                       | 20-01-2023                                                           |                 |      |
| QA/QC *                                                                                                                                            | Ahmed Abo Zaid    |                       | 20-01-2023                                                           |                 |      |
| GARB**                                                                                                                                             | HUSSEIN FOUAD     |                       | 20-01-2023                                                           |                 |      |
| Comments by                                                                                                                                        |                   |                       |                                                                      |                 |      |
| Employers Representative                                                                                                                           | A-1               |                       | 20/1/23                                                              | A               |      |

\* Designer

\*\* Alignment / Bridges: Culvert Only

| Location Name          | Contractor Company                |                    |            | Designer Company |    |    |    |    |
|------------------------|-----------------------------------|--------------------|------------|------------------|----|----|----|----|
| Electric express train | KNOOZ SINA COMPANY                |                    |            | k.k              |    |    |    |    |
| Issued by Contractor   | Name                              | Sign               | Date       | Time             |    |    |    |    |
|                        | Ahmed Abdallah                    | <i>Ahmed</i>       | 20-01-2023 |                  |    |    |    |    |
| Contractor Reference   | KS1 P.SUB GRADE- (2) - 20-01-2023 |                    |            |                  |    |    |    |    |
| Received by ER         | <i>A. J</i>                       | <i>[Signature]</i> | MAR        | C1               | C2 | C3 | DD | MM |
|                        |                                   |                    |            | KP504            | EW | CS |    | YY |

| NB:Package 1 only (Package 2 via Content )        |                |                       |                             |         |
|---------------------------------------------------|----------------|-----------------------|-----------------------------|---------|
| The following test result are attached for review |                |                       |                             |         |
| Description of Materials                          | Soil ( A-1-a ) |                       |                             |         |
| Location of stock                                 | K.p (504+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 | 8.6 %                       |         |
| 4                                                 | ASTM D 4318    | Atterberg limit       | N.P                         |         |
| 5                                                 | ASTM D 2974    | Moisture content      | 8.3 %                       |         |
| 6                                                 | ASTM D 1557    | Modified proctor      | 2.20                        |         |
| 7                                                 | ASTM D 1883    | CBR                   | 72.00 %                     |         |
| Comments by:                                      |                | Comments by:          |                             |         |
|                                                   |                |                       |                             |         |

| APPROVAL STATUS          |                       |                    |            |         |
|--------------------------|-----------------------|--------------------|------------|---------|
| Organisation             | Name                  | Sign               | Date       | A-AWC-R |
| Contractor               | <i>Ahmed Abdallah</i> | <i>Ahmed</i>       | 20-01-2023 |         |
| Contractor QA/QC *       | <i>Ahmed Abo Zaid</i> | <i>Ahmed</i>       | 20-01-2023 |         |
| GARB**                   | <i>Hussien Fouad</i>  | <i>Hussien</i>     | 20-01-2023 |         |
| Employers Representative | <i>A - J</i>          | <i>[Signature]</i> | 20/1/23    | A       |

\* Designer  
 \*\* Alignment/Bridges: Culvert only



**Electric Express Train - HSR**  
 From El Ain El Sokhna City To El Alamain - MATROUH  
 Section - 7 From FOKA To MARSA MATROUH  
 From Station 504+000 To Station 568+177



**Operating lap**      **Al Tawkol Central Lab**

### PARTICLE SIZE DISTRIBUTION OF SOIL

|               |               |                 |          |                    |         |
|---------------|---------------|-----------------|----------|--------------------|---------|
| TESTING DATE: | 17-1-2023     | code            | ZONE     | 504+180            | 505+000 |
| LOCATION      | K.P (504+500) | KS1.P.S.G ( 2 ) | Material | prepared sub grade |         |
| NAME COMPANY  | knouz sina1   |                 |          |                    |         |

-visual inspection test

**!-Gradient test**

| l-gradation of bulk materials |       |       | SAMPLE WEIGHT [g] |         |         | 31980.00 |         | gm   | table classify |
|-------------------------------|-------|-------|-------------------|---------|---------|----------|---------|------|----------------|
| sieve size                    | 3     | 2.0   | 1.5               | 1       | 3/4     | 3/8      | # 4     | PASS | soil classify  |
| Mass retained (g)             | 0.0   | 0.0   | 3640.0            | 6570.0  | 1990.0  | 5295.0   | 7445.0  |      | A-1-a          |
| umulative Retained (g)        | 0.0   | 0.0   | 3640.0            | 10210.0 | 12200.0 | 17495.0  | 24940.0 | PRO  | 2.20           |
| umulative Retained %          | 0.0   | 0.0   | 11.4              | 31.9    | 38.1    | 54.7     | 78.0    | WC   | 8.30           |
| umulative Passing %           | 100.0 | 100.0 | 88.6              | 80.0    | 70.3    | 45.3     | 22.0    | CBR  | 72.00          |
|                               |       |       |                   |         |         |          |         | LA   | 38.84          |

|                                  |       |        |              |  |        |  |    |
|----------------------------------|-------|--------|--------------|--|--------|--|----|
| <b>!-soft material gradation</b> |       |        | WT.OF sample |  | 500.00 |  | gm |
| sieve size                       | 10    | 40     | 200          |  |        |  |    |
| Cumulative Retained (g)          | 55.00 | 140.00 | 305.00       |  |        |  |    |
| Cumulative Retained %            | 11.00 | 28.00  | 61.00        |  |        |  |    |
| Cumulative Passing %             | 89.00 | 72.00  | 39.00        |  |        |  |    |

|                           |       |       |      |       |      |      |      |      |       |       |
|---------------------------|-------|-------|------|-------|------|------|------|------|-------|-------|
| <b>!-General gradient</b> |       |       |      |       |      |      |      |      |       |       |
| sieve size(in)            | 5     | 4.0   | 3    | 1 1/2 | 3/4  | 3/8  | # 4  | # 10 | # 40  | # 200 |
| sieve size(mm)            | 50.0  | 37.5  | 25.0 | 19.0  | 12.5 | 9.5  | 4.75 | 2.00 | 0.425 | 0.075 |
| Cumulative Passing %      | 100.0 | 100.0 | 88.6 | 80.0  | 70.3 | 45.3 | 22.0 | 19.6 | 15.8  | 8.6   |
|                           |       |       |      |       |      |      |      |      |       |       |
|                           |       |       |      |       |      |      |      |      |       |       |
|                           |       |       |      |       |      |      |      |      |       |       |

|                    |                      |                      |                      |
|--------------------|----------------------|----------------------|----------------------|
| ATTEBERG<br>LIMITS | LIQUID LIMIT ( L.L.) | PLASTIC LIMIT (P.L.) | PLASTIC INDEX (P.I.) |
|                    | N.L                  | N.P                  | N.P                  |

**Contractor**

**Consultant**

*(Handwritten signature and stamp of the Contractor)*

*(Handwritten signature and date 2023 of the Consultant)*

**شركة كنوز سيناء**  
 للمقاولات العامة والتوريدات



|                                                                                                                                                                     |                                                    |  |                                                                                                                                                                         |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|   | 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                                                                                                                             |                                                    |  |                                                                                                                                                                         |  |

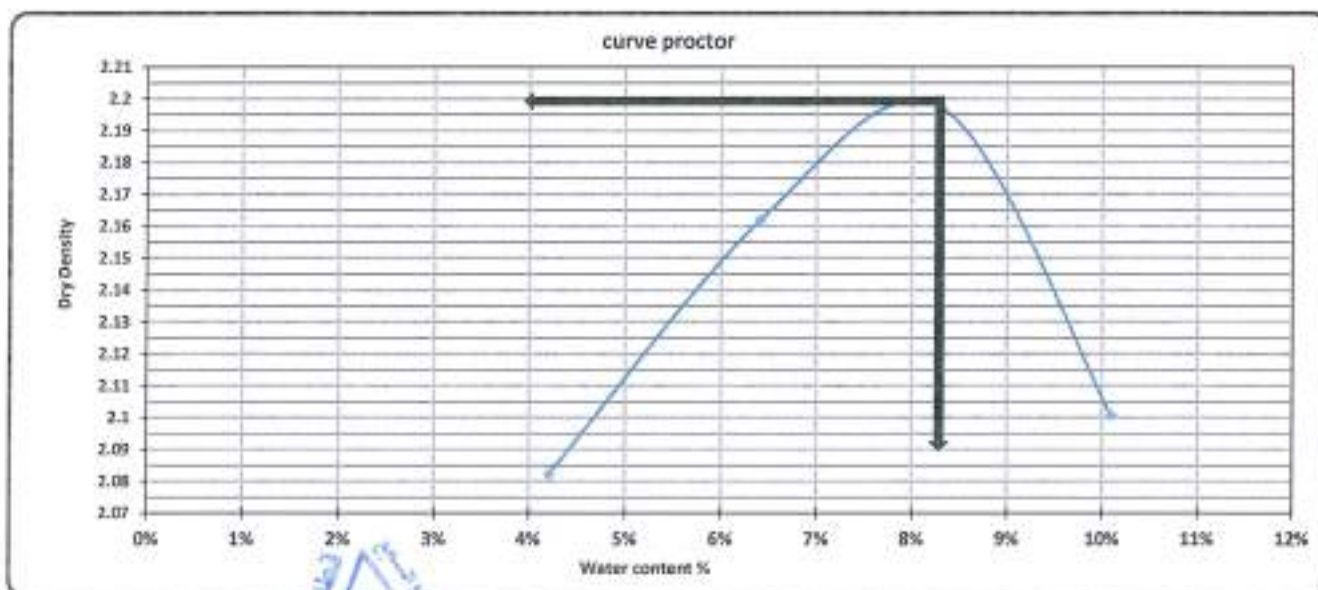
## PROCTOR TEST

|               |               |                |          |                    |         |
|---------------|---------------|----------------|----------|--------------------|---------|
| TESTING DATE: | 18-01-2023    | code           | Station  | 504+180            | 505+000 |
| LOCATION      | K.P (504+500) | KS1.P.S.G( 2 ) | Material | prepared sub grade |         |
| NAME COMPANY  | knouz sina1   |                |          |                    |         |

|                        |        |                 |     |
|------------------------|--------|-----------------|-----|
| Weight of empty mold : | 5620.0 | MAX Dry Density | 2.2 |
| Mold Volume:           | 2030.0 | Water content % | 8.3 |

|                       |         |         |         |        |  |
|-----------------------|---------|---------|---------|--------|--|
| trial no :            | 1       | 2       | 3       | 4      |  |
| Wt. Of Mold+ wet soil | 10625.0 | 10290.0 | 10451.0 | 10315  |  |
| WT. WET SOIL          | 4405.0  | 4670.0  | 4831.0  | 4695.0 |  |
| Wt. Density           | 2.170   | 2.300   | 2.380   | 2.313  |  |

|                        |       |       |       |       |       |       |       |       |  |  |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| Tare No.               | 3     | 6     | 8     | 10    | 12    | 19    | 22    | 23    |  |  |
| Tare wt.               | 55.72 | 53.97 | 57.06 | 55.43 | 54.83 | 56.08 | 54.76 | 54.4  |  |  |
| 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 | 146.3 | 146.0 | 144.5 | 144.2 | 142.6 | 142.9 | 141.2 | 141.3 |  |  |
| Wt. Of water           | 3.7   | 4.0   | 5.5   | 5.8   | 7.4   | 7.1   | 8.8   | 8.7   |  |  |
| Wt. Of dry soil        | 98.6  | 92.0  | 87.4  | 88.8  | 87.8  | 86.8  | 86.4  | 86.9  |  |  |
| Water content %        | 4.1%  | 4.3%  | 6.3%  | 6.5%  | 8.4%  | 8.2%  | 10.2% | 10.0% |  |  |
| AV. Water content %    | 4.2%  |       | 6.4%  |       | 8.3%  |       | 10.1% |       |  |  |
| Dry Density            | 2.082 |       | 2.162 |       | 2.197 |       | 2.101 |       |  |  |



Contractor

المهندس أحمد بخاري رقم ( ١ )

شركة كنوز  
سيناء  
للمقاولات العامة  
والتوريدات

Consultant

المهندس  
أ.ع. خالد قنديل

### California Bearing Ratio TEST

|                |               |                 |            |                    |          |         |
|----------------|---------------|-----------------|------------|--------------------|----------|---------|
| Testing Date : | 20-01-2023    | Code            | FROM STA : | 504+180            | TO STA : | 505+000 |
| Location :     | K.P (504+500) | KS1.P.S.G ( 2 ) | : Material | prepared sub grade |          |         |
| Company Name   | knouz sina1   |                 |            |                    |          |         |

#### Test Results

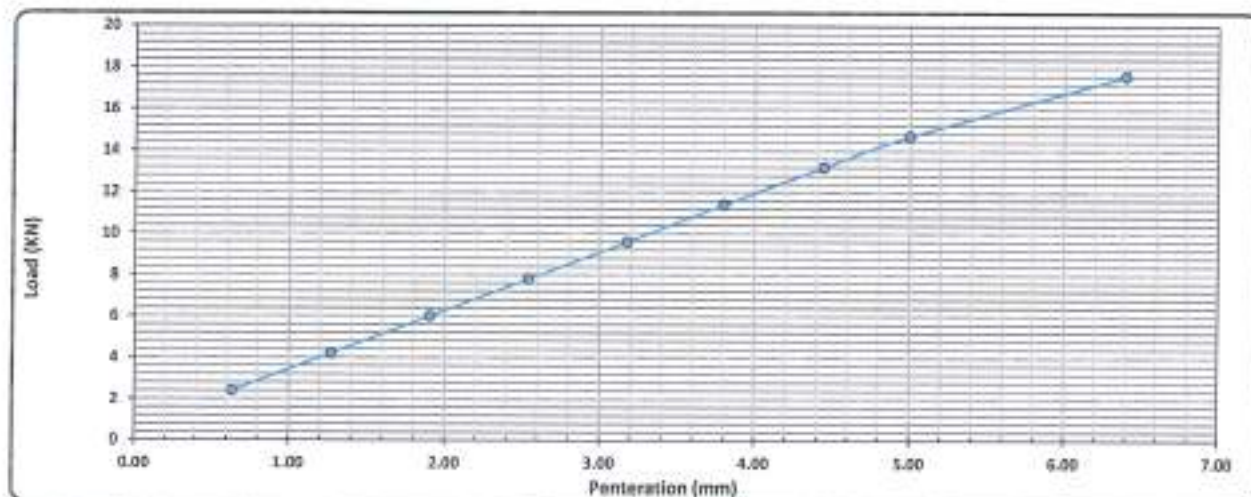
| Compaction % for Mold                |       |
|--------------------------------------|-------|
| Mold No.                             | 1     |
| Mold Vol.(cm <sup>3</sup> )          | 2168  |
| Mold WT. (gm)                        | 5889  |
| Mold WT. + Wet WT. (gm)              | 10563 |
| Wet WT. (gm)                         | 5174  |
| Wet Density (g/cm <sup>3</sup> )     | 2.381 |
| Dry Density (g/cm <sup>3</sup> )     | 2.284 |
| Proctor Density (g/cm <sup>3</sup> ) | 2.280 |
| Compaction %                         | 100   |

| Moisture Ratio After Compacted Mold |        |
|-------------------------------------|--------|
| Tare No.                            | 25.00  |
| Tare WT. (gm)                       | 58.83  |
| Tare WT. +Wet WT. (gm)              | 150    |
| Tare WT. +Dry WT. (gm)              | 142.60 |
| Water WT. (gm)                      | 7.40   |
| Dry WT. (gm)                        | 87     |
| Moisture Content %                  | 8.30   |

| Swelling            |            |
|---------------------|------------|
| Mold No.            | 1          |
| Date                | 20-01-2023 |
| Initial Height (mm) | 6.00       |
| Final Height (mm)   | 6.00       |
| Difference          | 0          |
| Sample Height (mm)  | 12.10      |
| Swelling Ratio %    | 0%         |

#### Loading Reading :

|                   |      |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|------|
| Penetration (mm)  | 0.64 | 1.27 | 1.91 | 2.54 | 3.18 | 3.80 | 4.43 | 5.09 | 6.40 |
| Load Reading (mm) | 0.08 | 0.14 | 0.20 | 0.26 | 0.32 | 0.38 | 0.44 | 0.49 | 0.56 |
| Load (KN)         | 2.4  | 4.2  | 6.0  | 7.8  | 9.6  | 11.4 | 13.2 | 14.7 | 17.6 |



#### Calculations :-

| Penetration (mm) | Load (Ks) | Standard Load (lb) | CBR (%) | Mold - Compaction (%) | Compaction (%) | CBR % عند نسبة 98 |
|------------------|-----------|--------------------|---------|-----------------------|----------------|-------------------|
| 2.50             | 7.80      | 13.4               | 58.4%   | 100                   | 98             | 57.3%             |
| 5.00             | 14.70     | 20.0               | 73.4%   |                       |                | 71.5%             |

Lab. Specialist

Name :

Sign :



Lab. Engineer

Name :

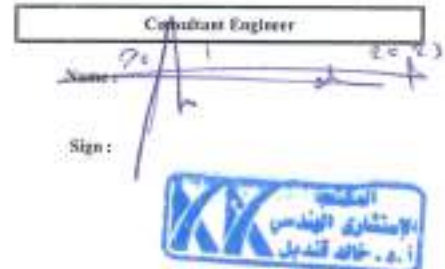
Sign :



Consultant Engineer

Name :

Sign :



|                                                                                                                                                                    |                                                                                                                       |                                                 |                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <br>ENGINEERING CONSULTING OFFICE<br>المكتب الاستشاري الهندسي<br>أ.د. خالد القدير | <br>مصر<br>السكك الحديدية<br>القاهرة | Electric Express Train - HSR                    | <br>الهيئة العامة للغازات<br>القاهرة |
|                                                                                                                                                                    |                                                                                                                       | From El An El Sokhna City To El Namin - MATROUH |                                                                                                                         |
|                                                                                                                                                                    |                                                                                                                       | Section - 7 From FOKA To MARSA MATROUH          |                                                                                                                         |
|                                                                                                                                                                    |                                                                                                                       | From Station 504+000 To Station 505+177         |                                                                                                                         |

| LOS Anglos abrasion test |               |                 |            |                    |          |
|--------------------------|---------------|-----------------|------------|--------------------|----------|
| Testing Date :           | 18-01-2023    | Code            | FROM STA : | 504+180            | TO STA : |
| Location :               | K.P (504+500) | KS1 P.S.G ( 2 ) | material   | prepared sub grade | 505+00   |
| Computer Name            | knooz dms1    |                 |            |                    |          |

| Los Anglos abrasion AASHTO-T96    |                                  |                    |
|-----------------------------------|----------------------------------|--------------------|
| Weight of sample before test (gm) | Weight of sample after test (gm) | Abrasion ratio (%) |
| 5000                              | 3058                             | 38.84              |

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :

Consultant Engineer

Name :

Sign :



# MATERIAL INSPECTION REQUEST



|                      |                                   |          |                                                                                                                                                                                                                                            |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
|----------------------|-----------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----|----|----|----|----|----|-------|----|----|--|--|--|--|--|--|
| Contractor Company   | KNOOZ SINA COMPANY                |          | Designer Company                                                                                                                                                                                                                           |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
| Issued by Contractor | Name<br>Eng. Ahmed Abdallah       | Sign<br> | Date<br>25-05-2023                                                                                                                                                                                                                         | Time |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
| Contractor reference | KS1 SUB BALLAST- (1) - 25-05-2023 |          |                                                                                                                                                                                                                                            |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
| Received by ER       | A-1                               | MIR      | <table border="1"> <tr> <td>CI</td> <td>CE</td> <td>CS</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td>KPS04</td> <td>EW</td> <td>CS</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | CI   | CE | CS | DD | MM | YY | HH | MM | KPS04 | EW | CS |  |  |  |  |  |  |
| CI                   | CE                                | CS       | DD                                                                                                                                                                                                                                         | MM   | YY | HH | MM |    |    |    |    |       |    |    |  |  |  |  |  |  |
| KPS04                | EW                                | CS       |                                                                                                                                                                                                                                            |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |

|        |                                |                             |                                                          |
|--------|--------------------------------|-----------------------------|----------------------------------------------------------|
| CODE-1 | S1 to S21<br>Station Reference | D1 to S3<br>Depot Reference | Kp XXX Note<br>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                                                                                                                                | <table border="1"> <tr> <th>From</th> <th>To</th> </tr> <tr> <td>504+900</td> <td>505+000 (+0.70)</td> </tr> <tr> <td>504+780</td> <td>504+900 (+0.70)</td> </tr> <tr> <td>504+660</td> <td>504+780 (+0.70)</td> </tr> <tr> <td>504+540</td> <td>504+660 (+0.70)</td> </tr> <tr> <td>504+420</td> <td>504+540 (+0.70)</td> </tr> <tr> <td>504+320</td> <td>504+420 (+0.70)</td> </tr> </table> |                |                                                                   |              |        |  | From | To | 504+900 | 505+000 (+0.70) | 504+780 | 504+900 (+0.70) | 504+660 | 504+780 (+0.70) | 504+540 | 504+660 (+0.70) | 504+420 | 504+540 (+0.70) | 504+320 | 504+420 (+0.70) |
| From                                                                                                                                               | To                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                   |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 504+900                                                                                                                                            | 505+000 (+0.70)                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                   |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 504+780                                                                                                                                            | 504+900 (+0.70)                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                   |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 504+660                                                                                                                                            | 504+780 (+0.70)                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                   |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 504+540                                                                                                                                            | 504+660 (+0.70)                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                   |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 504+420                                                                                                                                            | 504+540 (+0.70)                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                   |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 504+320                                                                                                                                            | 504+420 (+0.70)                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                   |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 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                                                                                                                                                                                                                                                                                                                                                                                 | m <sup>3</sup> | 2000                                                              | 22-05-2023   |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 2                                                                                                                                                  | Classification                                                                                                                                                                                                                                                                                                                                                                                 | m <sup>3</sup> | 2000                                                              | 22-05-2023   |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 3                                                                                                                                                  | Proctor & O.m.c                                                                                                                                                                                                                                                                                                                                                                                | m <sup>3</sup> | 2000                                                              | 23-05-2023   |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 4                                                                                                                                                  | L.L & P.L & PI                                                                                                                                                                                                                                                                                                                                                                                 | m <sup>3</sup> | 2000                                                              | 23-05-2023   |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| 5                                                                                                                                                  | C.B.R                                                                                                                                                                                                                                                                                                                                                                                          | m <sup>3</sup> | 2000                                                              | 25-05-2023   |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| Comments by:                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                |                | Comments by:                                                      |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| A sample has been taken from fill material by K.K office to ( Al TWAKOL laboratory ) and the results founded meet the specifications and accepted. |                                                                                                                                                                                                                                                                                                                                                                                                |                | Test results For estimated Quantities about [2000m <sup>3</sup> ] |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| APPROVAL STATUS                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                   |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| Organisation                                                                                                                                       | Name                                                                                                                                                                                                                                                                                                                                                                                           | Sign           | Date                                                              | A-AWC-R      |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| Contractor                                                                                                                                         | Ahmed                                                                                                                                                                                                                                                                                                                                                                                          | Ahmed          | 25-05-2023                                                        |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| QA/QC *                                                                                                                                            | Abdallah SAMY                                                                                                                                                                                                                                                                                                                                                                                  | Abdallah       | 25-05-2023                                                        |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| GARB**                                                                                                                                             | Hussien Fouad                                                                                                                                                                                                                                                                                                                                                                                  | Hussien        | 25-05-2023                                                        |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| Comments by                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                   |              |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |
| Employers Representative                                                                                                                           | A-1                                                                                                                                                                                                                                                                                                                                                                                            |                | 25/5/23                                                           | A            |        |  |      |    |         |                 |         |                 |         |                 |         |                 |         |                 |         |                 |

\* Designer

\*\* Alignment / Bridges: Culvert Only

| Location Name          | Contractor Company                |      |            | Designer Company |    |    |
|------------------------|-----------------------------------|------|------------|------------------|----|----|
| Electric express train | KNOOZ SINA COMPANY                |      |            | k.k              |    |    |
| Issued by Contractor   | Name                              | Sign | Date       | Time             |    |    |
|                        | Ahmed Abdallah                    |      | 25-05-2023 |                  |    |    |
| Contractor Reference   | KS1 SUB BALLAST- (1) - 25- 5-2023 |      |            |                  |    |    |
| Received by ER         |                                   |      | MAR        | C1               | C2 | C3 |
|                        |                                   |      |            | KP504            | EW | CS |
|                        |                                   |      |            | 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-a ) |                       |                             |         |
| Location of stock                                 | K.p (504+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 | 5.44 %                      |         |
| 4                                                 | ASTM D 4318    | Atterberg limit       | N.P                         |         |
| 5                                                 | ASTM D 2974    | Moisture content      | 6.5 %                       |         |
| 6                                                 | ASTM D 1557    | Modified proctor      | 2.235                       |         |
| 7                                                 | ASTM D 1883    | CBR                   | 98.30 %                     |         |
| Comments by:                                      |                | Comments by:          |                             |         |
|                                                   |                |                       |                             |         |

| APPROVAL STATUS          |                |      |            |         |
|--------------------------|----------------|------|------------|---------|
| Organisation             | Name           | Sign | Date       | A-AWC-R |
| Contractor               | Ahmed Abdallah |      | 25-05-2023 |         |
| Contractor QA/QC *       | Abdallah SAMY  |      | 25-05-2023 |         |
| GARB**                   | Hussien Fouad  |      | 25-05-2023 |         |
| Employers Representative | A-2            |      | 25/5/23    | A       |

\* Designer

\*\* Alignment/Bridges: Culvert only

|                                                                                                                                                                     |                                                                                                                    |                                                                                                                                                                               |  |                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------|
| <br>KK ENGINEERING CONSULTING OFFICE<br>المكتب الاستشاري الهندسي<br>أ.م. خالد قنديل | <br>HSR<br>شركة حديد سكة حديد مصر | <b>Electric Express Train - HSR</b><br>From El Ain El Sokhna City To El Alamein - MATROUH<br>Section - 7 From FOKA To MARS MATROUH<br>From Station 504+000 To Station 568+177 |  | <br>الهيئة العامة<br>للسكك الحديدية<br>(G.R.E.) |
|                                                                                                                                                                     |                                                                                                                    |                                                                                                                                                                               |  |                                                                                                                                    |
|                                                                                                                                                                     |                                                                                                                    |                                                                                                                                                                               |  |                                                                                                                                    |

Operating lab: Al Tawkol Central Lab

### PARTICLE SIZE DISTRIBUTION OF SOIL

|               |               |                        |          |             |         |
|---------------|---------------|------------------------|----------|-------------|---------|
| TESTING DATE: | 22/5/2023     | code                   | ZONE     | 504+180     | 505+000 |
| LOCATION      | K.P (504+500) | (KS 1) SUB BALLAST (1) | Material | SUB BALLAST |         |
| NAME COMPANY  | knouz sina1   |                        | QUANTITY | 2000 M      |         |

#### 1-visual inspection test

#### 2-Gradient test

| A-gradation of bulk materials |       |        |         | SAMPLE WEIGHT [gm] |         | 77735.000 |         | gm   | table class |
|-------------------------------|-------|--------|---------|--------------------|---------|-----------|---------|------|-------------|
| sieve size                    | 2 "   | 1.5 "  | 1 "     | 3/4 "              | 1/2 "   | 3/8 "     | # 4     | PASS | soil class  |
| Mass retained (g)             | 0.0   | 3510.0 | 10730.0 | 9875.0             | 13270.0 | 8530.0    | 15305.0 |      | CLASS A-1-a |
| Cumulative Retained (g)       | 0.0   | 3510.0 | 14240.0 | 24115.0            | 37385.0 | 45915.0   | 61220.0 |      | PRO 2.235   |
| Cumulative Retained %         | 0.0   | 4.5    | 18.3    | 31.0               | 48.1    | 59.1      | 78.6    |      | WC 6.5      |
| Cumulative Passing %          | 100.0 | 95.5   | 81.7    | 69.0               | 51.9    | 40.9      | 21.25   |      | CBR 98.30   |
|                               |       |        |         |                    |         |           |         |      | L.A 24.60   |
|                               |       |        |         |                    |         |           |         |      | S.G 2.515   |

| B-soft material gradation |       |        |        | WT.OF sample |  | 500.00 |  | gm |
|---------------------------|-------|--------|--------|--------------|--|--------|--|----|
| sieve size                | #10   | #40    | #200   |              |  |        |  |    |
| Cumulative Retained (g)   | 99.80 | 204.00 | 372.00 |              |  |        |  |    |
| Cumulative Retained %     | 19.96 | 40.80  | 74.40  |              |  |        |  |    |
| Cumulative Passing %      | 80.04 | 59.20  | 25.60  |              |  |        |  |    |

| 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 | 95.5  | 81.7 | 69.0  | 51.9  | 40.9  | 21.2 | 17.0 | 12.8  | 5.44  |
|                      |       |       |      |       |       |       |      |      |       |       |
|                      |       |       |      |       |       |       |      |      |       |       |
|                      |       |       |      |       |       |       |      |      |       |       |

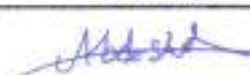
| ATTERBERG LIMITS | LIQUID LIMIT (L.L.) | PLASTIC LIMIT (P.L.) | PLASTIC INDEX (P.I.) |
|------------------|---------------------|----------------------|----------------------|
|                  | N.L                 | N.P                  | N.PI                 |

Contractor

Consultant

  
  
 المهندس عمر عطري رقم ١

  
 شركة كنوز  
 سيناء  
 للمقاولات العامة  
 والتوريدات

  
  
 المكتب  
 الاستشاري الهندسي  
 أ.م. خالد قنديل

|                                                                                                                                                                     |                                                                                                                                                                                |  |                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <b>Electric Express Train - HSR</b><br>From El Ain El Sokhna City To El Alamein - MATROUH<br>Section - 7 From FOKA TO MARSA MATROUH<br>From Station 504+000 To Station 568+177 |  |   |
|                                                                                                                                                                     |                                                                                                                                                                                |  |                                                                                                                                                                         |
|                                                                                                                                                                     |                                                                                                                                                                                |  |                                                                                                                                                                         |

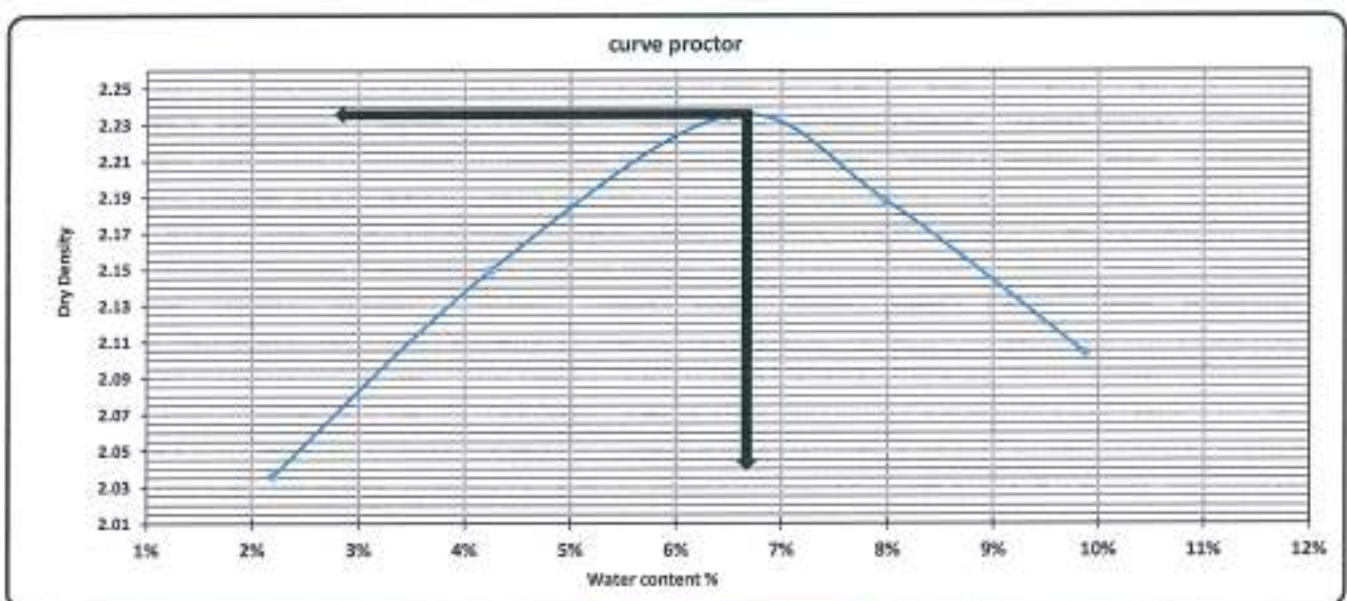
### MODIFIED PROCTOR TEST ASTM D-1557

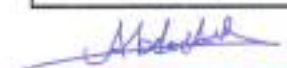
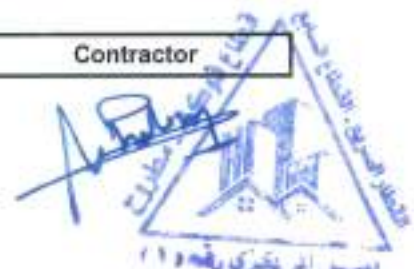
|               |               |                         |          |             |         |
|---------------|---------------|-------------------------|----------|-------------|---------|
| TESTING DATE: | 23/5/2023     | code                    | ZONE     | 504+180     | 505+000 |
| LOCATION      | K.P (504+500) | (KST) - SUB BALLAST III | Material | SUB BALLAST |         |
| NAME COMPANY  | knouz sina    |                         | QUANTITY | 2000 m      |         |

|                        |        |                 |       |
|------------------------|--------|-----------------|-------|
| Weight of empty mold : | 5620.0 | MAX Dry Density | 2.235 |
| Mold Volume:           | 2124.0 | Water content % | 6.5%  |

|                       |         |         |         |        |        |
|-----------------------|---------|---------|---------|--------|--------|
| trial no :            | 1       | 2       | 3       | 4      | 5      |
| Wt. Of Mold+ wet soil | 10040.0 | 10380.0 | 10660.0 | 10640  | 10530  |
| WT. WET SOIL          | 4420.0  | 4760.0  | 5040.0  | 5020.0 | 4910.0 |
| Wt. Density           | 2.081   | 2.241   | 2.373   | 2.363  | 2.312  |

|                        |       |       |       |       |        |        |       |       |       |       |
|------------------------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| Tare No.               | 10    | 1     | 8     | 5     | 2      | 20     | 15    | 24    | 12    | 7     |
| Tare wt.               | 54.4  | 55.19 | 57.13 | 56.26 | 52.46  | 54.65  | 54.42 | 55.94 | 55.33 | 54.34 |
| 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 | 147.9 | 148.0 | 145.9 | 146.5 | 144.32 | 144.45 | 142.8 | 143.2 | 141.6 | 141.3 |
| Wt. Of water           | 2.1   | 2.0   | 4.1   | 3.5   | 5.7    | 5.6    | 7.2   | 6.8   | 8.4   | 8.7   |
| Wt. Of dry soil        | 93.5  | 92.8  | 88.8  | 90.2  | 91.9   | 89.8   | 88.4  | 87.2  | 86.3  | 87.0  |
| Water content %        | 2.2%  | 2.2%  | 4.6%  | 3.9%  | 6.4%   | 6.6%   | 8.1%  | 7.8%  | 9.7%  | 10.0% |
| AV. Water content %    | 2.2%  |       | 4.2%  |       | 6.5%   |        | 8.0%  |       | 9.9%  |       |
| Dry Density            | 2.036 |       | 2.150 |       | 2.235  |        | 2.189 |       | 2.104 |       |



|                                                                                                          |                                                                                     |                                                                                                            |
|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Contractor</b><br> |  | <b>Consultant</b><br> |
|                       |                                                                                     |                       |

|                                                                                                                                                                    |                                                                                            |                                                    |                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <br>ENGINEERING CONSULTING OFFICE<br>المكتب الاستشاري الهندسي<br>أ. د. خالد قنديل | <br>CVS/A | Electric Express Train - HSR                       | <br>الهيئة العامة للطرق والنقل العام<br>(GRT) |
|                                                                                                                                                                    |                                                                                            | 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            |                                                                                                                                  |

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

|               |               |                         |          |             |         |
|---------------|---------------|-------------------------|----------|-------------|---------|
| TESTING DATE: | 23/5/2023     | code                    | Station  | 504+180     | 505+000 |
| LOCATION      | K.P (504+500) | (RS 1) -SUB BALLAST (1) | Material | SUB BALLAST |         |
| NAME COMPANY  | kanooz sina I |                         | QUANTITY | 2000 M      |         |

|                                            |      |    |
|--------------------------------------------|------|----|
| Weight of sample                           | 2500 | gm |
| Weight of saturated surface dry sample (B) | 2535 | gm |
| Weight of saturated sample in water (C)    | 1545 | gm |
| Weight of dry sample after heating (A)     | 2490 | gm |

**Results:-**

|                                             |       |   |
|---------------------------------------------|-------|---|
| Bulk specific gravity = $A / (B-C)$         | 2.515 |   |
| Bulk specific gravity (S.S.D) = $B / (B-C)$ | 2.561 |   |
| Apparent specific gravity = $A / (A-C)$     | 2.635 |   |
| Absorbation = $(B-A)/A$                     | 1.607 | % |

**Los Anglos Abrasion AASHTO-T96**

**Results:-**

|                                   |                                  |                    |
|-----------------------------------|----------------------------------|--------------------|
| Weight of sample before test (gm) | Weight of sample after test (gm) | Abrasion ratio (%) |
| 5000                              | 3770                             | 24.60              |

Lab. Specialist

Name :



Lab. Engineer

Name :



Consultant Engineer

Name :

Sign :



### California Bearing Ratio TEST

|                |               |                      |                   |             |         |
|----------------|---------------|----------------------|-------------------|-------------|---------|
| Testing Date : | 25/5/2023     | Code                 | FROM STA :        | 504+180     | 505+000 |
| Location :     | K.P (504+500) | KS 1 -SUB BALLAST(1) | : Material        | SUB BALLAST |         |
| Company Name   | KNOZ SINAA 1  |                      | : Layer Thickness | 1000N       |         |

#### - : Test Results

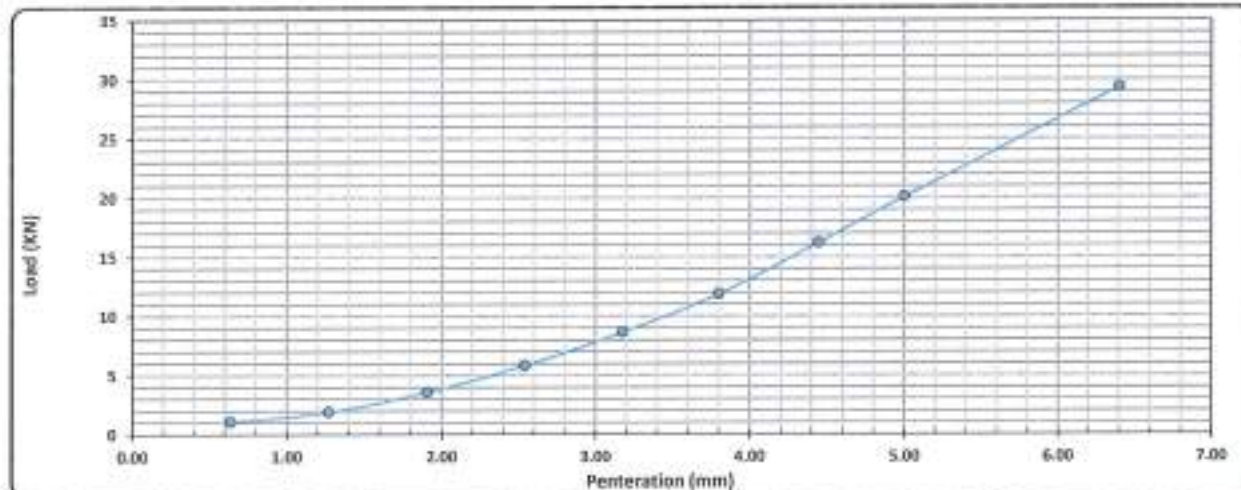
| Compaction % for Mold                |       |
|--------------------------------------|-------|
| Mold No.                             | 1     |
| Mold Vol. (cm <sup>3</sup> )         | 2160  |
| Mold WT. (gm)                        | 4822  |
| Mold WT. + Wet WT. (gm)              | 9944  |
| Wet WT. (gm)                         | 5122  |
| Wet Density (g/cm <sup>3</sup> )     | 2.371 |
| Dry Density (g/cm <sup>3</sup> )     | 2.236 |
| Proctor Density (g/cm <sup>3</sup> ) | 2.235 |
| Compaction %                         | 100.0 |

| Moisture Ratio After Compacted Mold |       |
|-------------------------------------|-------|
| Tare No.                            | 3     |
| Tare WT. (gm)                       | 55.33 |
| Tare WT. + Wet WT. (gm)             | 150   |
| Tare WT. + Dry WT. (gm)             | 144.6 |
| Water WT. (gm)                      | 5.4   |
| Dry WT. (gm)                        | 89.3  |
| Moisture Content %                  | 6.0   |

| Swelling            |           |
|---------------------|-----------|
| Mold No.            | 1         |
| Date                | 25/5/2023 |
| Initial Height (mm) | 30.00     |
| Final Height (mm)   | 30.00     |
| Difference          | 0.00      |
| Sample Height (mm)  | 120       |
| Swelling Ratio %    | 0.00%     |

#### Loading Reading :

|                   |      |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|------|
| Penetration (mm)  | 0.64 | 1.27 | 1.91 | 2.54 | 3.18 | 3.80 | 4.45 | 5.00 | 6.40 |
| Load Reading (Kg) | 121  | 214  | 401  | 682  | 965  | 1321 | 1801 | 2232 | 3262 |
| Load (KN)         | 1.1  | 1.9  | 3.6  | 5.9  | 8.7  | 11.9 | 16.2 | 20.1 | 29.4 |



#### Calculations :-

| Penetration | Load  | Standard Load | CBR    | Mold - Compaction | Compaction | CBR           |
|-------------|-------|---------------|--------|-------------------|------------|---------------|
| (mm)        | (Kn)  | (It)          | (%)    | (%)               | (%)        | % على نسبة 98 |
| 2.50        | 5.87  | 13.4          | 44.0%  | 100               | 98         | 43.1%         |
| 5.00        | 20.09 | 20.0          | 100.3% |                   |            | 98.3%         |

Lab. Specialist

Name :

Sign :



Lab. Engineer

Name :

Sign :



Consultant Engineer

Name :

Sign :



# MATERIAL INSPECTION REQUEST



|                      |                             |               |                                                                                                                                                                                                                                            |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
|----------------------|-----------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|----|----|----|----|----|----|-------|----|----|--|--|--|--|--|--|
| Contractor Company   | <b>KNOOZ SINA COMPANY</b>   |               | Designer Company                                                                                                                                                                                                                           |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
| Issued by Contractor | Name<br>Eng. Ahmed Abdallah | Signature<br> | Date<br>02-06-2023                                                                                                                                                                                                                         | Time |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
| Contractor reference | KS1 SUB BALLAST- (2)        |               |                                                                                                                                                                                                                                            |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |
| Received by ER       | A-1                         | MIR           | <table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>D0</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td>KPS04</td> <td>EW</td> <td>CS</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | C1   | C2 | C3 | D0 | MM | YY | HH | MM | KPS04 | EW | CS |  |  |  |  |  |  |
| C1                   | C2                          | C3            | D0                                                                                                                                                                                                                                         | MM   | YY | HH | MM |    |    |    |    |       |    |    |  |  |  |  |  |  |
| KPS04                | EW                          | CS            |                                                                                                                                                                                                                                            |      |    |    |    |    |    |    |    |       |    |    |  |  |  |  |  |  |

|          |                                |                             |                                                          |
|----------|--------------------------------|-----------------------------|----------------------------------------------------------|
| CODE - 1 | S1 to S21<br>Station Reference | D1 to S3<br>Depot Reference | Kp XXX Note<br>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                    | From                                                    | To              |      |
|                                                                                                                                                    | 504+900           | 505+000 (+0.90)       | 504+180                                                 | 504+220 (+0.90) |      |
|                                                                                                                                                    | 504+780           | 504+900 (+0.90)       | 504+180                                                 | 504+220 (+0.70) |      |
|                                                                                                                                                    | 504+660           | 504+780 (+0.90)       | 504+220                                                 | 504+320 (+0.90) |      |
|                                                                                                                                                    | 504+540           | 504+660 (+0.90)       | 504+220                                                 | 504+320 (+0.70) |      |
|                                                                                                                                                    | 504+420           | 504+540 (+0.90)       |                                                         |                 |      |
|                                                                                                                                                    | 504+320           | 504+420 (+0.90)       |                                                         |                 |      |
| 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                    | 2000                                                    | 29-05-2023      |      |
| 2                                                                                                                                                  | Classification    | m³                    | 2000                                                    | 29-05-2023      |      |
| 3                                                                                                                                                  | Proctor & O.m.c   | m³                    | 2000                                                    | 30-05-2023      |      |
| 4                                                                                                                                                  | L.L & P.L & PI    | m³                    | 2000                                                    | 30-05-2023      |      |
| 5                                                                                                                                                  | C.B.R             | m³                    | 2000                                                    | 02-06-2023      |      |
| Comments by:                                                                                                                                       |                   |                       | Comments by:                                            |                 |      |
| A sample has been taken from fill material by K.K office to ( AI TWAKOL laboratory ) and the results founded meet the specifications and accepted. |                   |                       | TEST RESULTS FOR ESTIMATED QUANTITIES OF ABOUT 2000 m³. |                 |      |
| <b>APPROVAL STATUS</b>                                                                                                                             |                   |                       |                                                         |                 |      |
| Organisation                                                                                                                                       | Name              | Sign                  | Date                                                    | A-AWC-R         |      |
| Contractor                                                                                                                                         | AHMED ABDALLAH    |                       | 02-06-2023                                              |                 |      |
| QA/QC *                                                                                                                                            | Ahmed AboZaid     |                       | 02-06-2023                                              |                 |      |
| GARB**                                                                                                                                             | HUSSEIN FOUAD     |                       | 02-06-2023                                              |                 |      |
| Comments by                                                                                                                                        |                   |                       |                                                         |                 |      |
| Employers Representative                                                                                                                           | A-1               |                       | 21/6/23                                                 | A               |      |



\* Designer

\*\* Alignment / Bridges: Culvert Only

| Location Name          | Contractor Company                |      |            | Designer Company |    |    |
|------------------------|-----------------------------------|------|------------|------------------|----|----|
| Electric express train | KNOOZ SINA COMPANY                |      |            | k.k              |    |    |
| Issued by Contractor   | Name                              | Sign | Date       | Time             |    |    |
|                        | Ahmed Abdallah                    |      | 02-06-2023 |                  |    |    |
| Contractor Reference   | KS1 SUB BALLAST- (2) - 02-06-2023 |      |            |                  |    |    |
| Received by ER         | A7                                |      | MAR        | C1               | C2 | C3 |
|                        |                                   |      |            | KP504            | EW | CS |
|                        |                                   |      |            | 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-a ) |                       |                             |         |
| Location of stock                                 | K.p (504+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 | 5.36 %                      |         |
| 4                                                 | ASTM D 4318    | Atterberg limit       | N.P                         |         |
| 5                                                 | ASTM D 2974    | Moisture content      | 6.8 %                       |         |
| 6                                                 | ASTM D 1557    | Modified proctor      | 2.24                        |         |
| 7                                                 | ASTM D 1883    | CBR                   | 99.10 %                     |         |
| Comments by:                                      |                | Comments by:          |                             |         |
|                                                   |                |                       |                             |         |

| APPROVAL STATUS          |                |      |            |         |
|--------------------------|----------------|------|------------|---------|
| Organisation             | Name           | Sign | Date       | A-AWC-R |
| Contractor               | Ahmed Abdallah |      | 02-06-2023 |         |
| Contractor QA/QC *       | Abdallah SAMY  |      | 02-05-2023 |         |
| GARB**                   | Hussien Fouad  |      | 02-05-2023 |         |
| Employers Representative | A-2            |      | 21/6/23    | A       |

\* Designer

\*\* Alignment/Bridges: Culvert only

Operating lap

Al Tawkol Central Lab

## PARTICLE SIZE DISTRIBUTION OF SOIL

|               |               |                        |          |             |         |
|---------------|---------------|------------------------|----------|-------------|---------|
| TESTING DATE: | 29-5-2023     | code                   | ZONE     | 504+180     | 505+000 |
| LOCATION      | K.P (504+500) | (KS 1) SUB BALLAST (2) | Material | SUB BALLAST |         |
| NAME COMPANY  | knouz sina 1  |                        | QUANTITY | 2000 M      |         |

### 1-visual inspection test

### 2-Gradient test

| A-gradation of bulk materials |       |        |        | SAMPLE WEIGHT (gm) |         | 48390.000 |         | gm   | table class |
|-------------------------------|-------|--------|--------|--------------------|---------|-----------|---------|------|-------------|
| sieve size                    | 2 "   | 1.5 "  | 1 "    | 3/4 "              | 1/2 "   | 3/8 "     | # 4     | PASS | soil class  |
| Mass retained (g)             | 0.0   | 2580.0 | 4160.0 | 7800.0             | 3980.0  | 7545.0    | 11045.0 |      | CLASS A-1-a |
| Cumulative Retained (g)       | 0.0   | 2580.0 | 6740.0 | 14540.0            | 18520.0 | 26065.0   | 37110.0 |      | PRO 2.240   |
| Cumulative Retained %         | 0.0   | 5.3    | 13.9   | 30.0               | 38.3    | 53.9      | 76.7    |      | WC 6.8      |
| Cumulative Passing %          | 100.0 | 94.7   | 86.1   | 70.0               | 61.7    | 46.1      | 23.31   |      | CBR 99.10   |
|                               |       |        |        |                    |         |           |         |      | L.A 22.60   |
|                               |       |        |        |                    |         |           |         |      | S.G 2.518   |

| B-soft material gradation |        |        |        | WT.OF sample |  | 500.00 |  | gm |
|---------------------------|--------|--------|--------|--------------|--|--------|--|----|
| sieve size                | #10    | #40    | #200   |              |  |        |  |    |
| Cumulative Retained (g)   | 115.00 | 235.00 | 385.00 |              |  |        |  |    |
| Cumulative Retained %     | 23.00  | 47.00  | 77.00  |              |  |        |  |    |
| Cumulative Passing %      | 77.00  | 53.00  | 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  | 12.5  | 9.5   | 4.75 | 2.00 | 0.425 | 0.075 |
| Cumulative Passing % | 100.0 | 94.7  | 86.1 | 70.0  | 61.7  | 46.1  | 23.3 | 17.9 | 12.4  | 5.36  |
|                      |       |       |      |       |       |       |      |      |       |       |
|                      |       |       |      |       |       |       |      |      |       |       |
|                      |       |       |      |       |       |       |      |      |       |       |

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

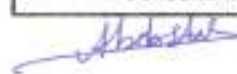
Contractor



المهندس المرموق رافع (١)



Consultant




|                                                                                                                                                                     |                                                                                                                                                                                |  |                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <b>Electric Express Train - HSR</b><br>From El Ain El Sokhna City To El Alamein - MATROUH<br>Section - 7 From FOKA TO MARSA MATROUH<br>From Station 504+000 To Station 568+177 |  |   |
|                                                                                                                                                                     |                                                                                                                                                                                |  |                                                                                                                                                                         |
|                                                                                                                                                                     |                                                                                                                                                                                |  |                                                                                                                                                                         |

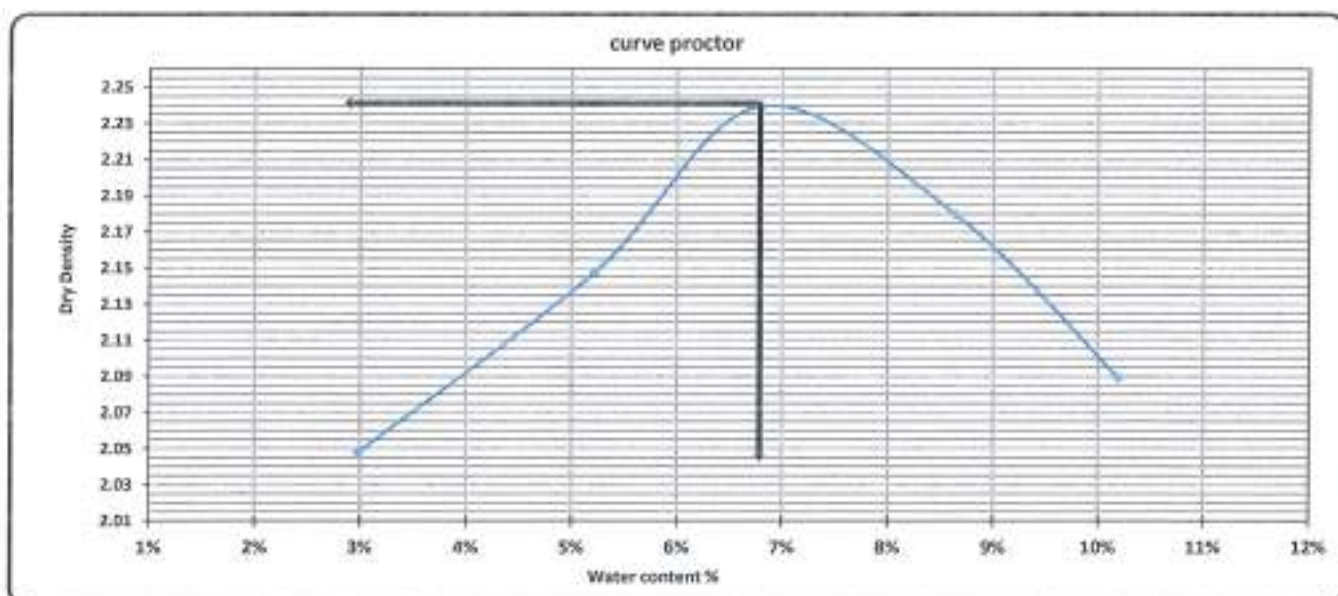
### MODIFIED PROCTOR TEST ASTM D-1557

|               |              |                      |          |             |         |
|---------------|--------------|----------------------|----------|-------------|---------|
| TESTING DATE: | 30-05-2023   | code                 | ZONE     | 504+180     | 505+000 |
| LOCATION      | K.P(504+500) | 9151 SUB BALLAST (3) | Material | SUB BALLAST |         |
| NAME COMPANY  | Knouz sina1  |                      | QUANTITY | 2000 m      |         |

|                        |        |                 |       |
|------------------------|--------|-----------------|-------|
| Weight of empty mold : | 5620.0 | MAX Dry Density | 2.240 |
| Mold Volume:           | 2124.0 | Water content % | 6.8%  |

|                       |         |         |         |        |        |
|-----------------------|---------|---------|---------|--------|--------|
| trial no :            | 1       | 2       | 3       | 4      | 5      |
| Wt. Of Mold+ wet soil | 10100.0 | 10420.0 | 10700.0 | 10650  | 10510  |
| WT. WET SOIL          | 4480.0  | 4800.0  | 5080.0  | 5030.0 | 4890.0 |
| Wt. Density           | 2.149   | 2.260   | 2.392   | 2.368  | 2.302  |

|                        |       |       |       |       |        |        |       |       |       |       |
|------------------------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| Tare No.               | 17    | 3     | 24    | 21    | 1      | 2      | 12    | 19    | 10    | 11    |
| Tare wt.               | 53.33 | 53.18 | 55.80 | 54.5  | 57.90  | 52.78  | 54.8  | 56.09 | 54.22 | 53.24 |
| 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 | 147.3 | 147.1 | 145.4 | 145.2 | 143.99 | 143.99 | 142.5 | 142.5 | 141.0 | 141.2 |
| Wt. Of water           | 2.7   | 2.9   | 4.6   | 4.8   | 6.0    | 6.0    | 7.5   | 7.5   | 9.0   | 8.8   |
| Wt. Of dry soil        | 94.0  | 93.9  | 89.5  | 90.7  | 86.0   | 91.2   | 87.7  | 86.4  | 86.8  | 88.0  |
| Water content %        | 2.9%  | 3.1%  | 5.1%  | 5.3%  | 7.0%   | 6.6%   | 8.6%  | 8.7%  | 10.4% | 10.0% |
| AV. Water content %    | 3.0%  |       | 5.2%  |       | 6.8%   |        | 8.6%  |       | 10.2% |       |
| Dry Density            | 2.048 |       | 2.148 |       | 2.240  |        | 2.180 |       | 2.089 |       |



Contractor



Consultant

*Handwritten signature of the Consultant*



|                                                                                                                                                                   |                                                                                            |                                                                                                                              |                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <br>ENGINEERING CONSULTING OFFICE<br>المكتب الاستشاري الهندسي<br>أ.د. خالد قنديل | <br>CVSZA | Electric Express Train - HSR<br>From El Ain El Sokhna City To El Alamein - MATROUH<br>Section - 7 From FORA To MARSA MATROUH | <br>القناة السويسية<br>سلطة القناة السويسية |
|                                                                                                                                                                   |                                                                                            | From Station 584+800 To Station 588+177                                                                                      |                                                                                                                                |
| <b>Absorption &amp; Aggregate specific gravity AASHTO-T85</b>                                                                                                     |                                                                                            |                                                                                                                              |                                                                                                                                |

|               |               |                         |          |             |         |
|---------------|---------------|-------------------------|----------|-------------|---------|
| TESTING DATE: | 30-5-2023     | code                    | Station  | 504+180     | 505+000 |
| LOCATION      | K.P (504+500) | [KS 1] -SUB BALLAST (2) | Material | SUB BALLAST |         |
| NAME COMPANY  | knouz siba 1  |                         | QUANTITY | 2000 M      |         |

|                                            |      |    |
|--------------------------------------------|------|----|
| Weight of sample                           | 2500 | gm |
| Weight of saturated surface dry sample (B) | 2535 | gm |
| Weight of saturated sample in water (C)    | 1546 | gm |
| Weight of dry sample after heating (A)     | 2490 | gm |

**Results:-**

|                                             |       |   |
|---------------------------------------------|-------|---|
| Bulk specific gravity = $A / (B-C)$         | 2.518 |   |
| Bulk specific gravity (S.S.D) = $B / (B-C)$ | 2.563 |   |
| Apparent specific gravity = $A / (A-C)$     | 2.638 |   |
| Absorption = $(B-A)/A$                      | 1.807 | % |

**Los Anglos Abrasion AASHTO-T96**

**Results:-**

|                                   |                                  |                    |
|-----------------------------------|----------------------------------|--------------------|
| Weight of sample before test (gm) | Weight of sample after test (gm) | Abrasion ratio (%) |
| 5000                              | 3870                             | 22.60              |

Lab. Specialist

Name :



Lab. Engineer

Name :

Sign :



Consultant Engineer

Name :

Sign :





## California Bearing Ratio TEST

|                |               |                      |                 |             |         |
|----------------|---------------|----------------------|-----------------|-------------|---------|
| Testing Date : | 2/6/2023      | Code                 | FROM STA :      | 504+180     | 505+000 |
| Location :     | K.P (504+500) | KS 1 -SUB BALLAST(2) | Material        | SUB BALLAST |         |
| Company Name   | knouz sina    |                      | Layer Thickness | 200mm       |         |

### Test Results

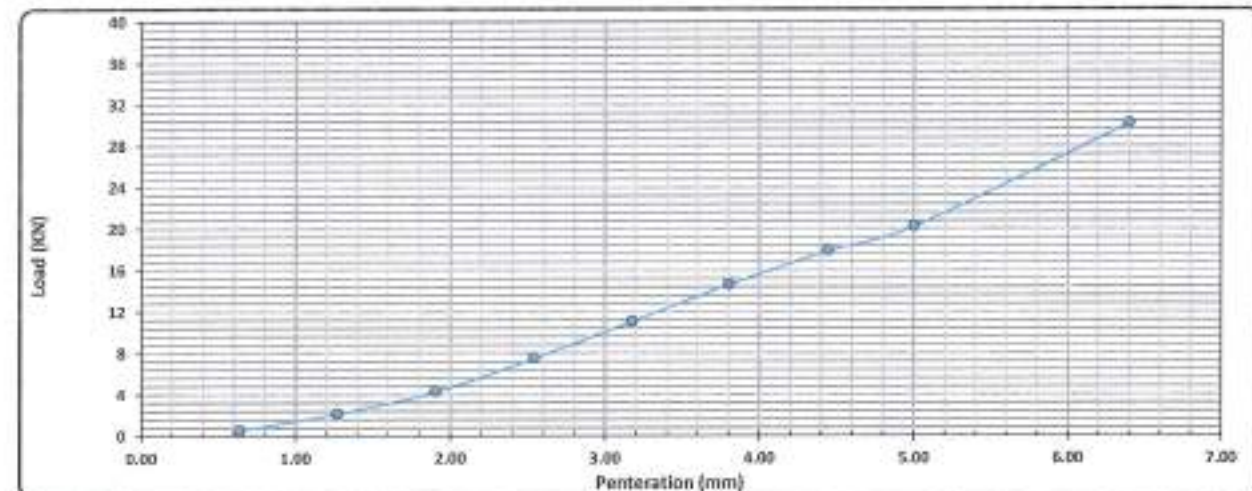
| Compaction % for Mold                |       |
|--------------------------------------|-------|
| Mold No.                             | 1     |
| Mold Vol. (cm <sup>3</sup> )         | 2168  |
| Mold WT. (gm)                        | 4822  |
| Mold WT. + Wet WT. (gm)              | 9990  |
| Wet WT. (gm)                         | 5168  |
| Wet Density (g/cm <sup>3</sup> )     | 2.393 |
| Dry Density (g/cm <sup>3</sup> )     | 2.240 |
| Proctor Density (g/cm <sup>3</sup> ) | 2.240 |
| Compaction %                         | 100.0 |

| Moisture Ratio After Compacted Mold |        |
|-------------------------------------|--------|
| Tare No.                            | 1      |
| Tare WT. (gm)                       | 54.22  |
| Tare WT. + Wet WT. (gm)             | 1.50   |
| Tare WT. + Dry WT. (gm)             | 1.03.9 |
| Water WT. (gm)                      | 4.1    |
| Dry WT. (gm)                        | 89.7   |
| Moisture Content %                  | 4.6    |

| Swelling            |          |
|---------------------|----------|
| Mold No.            | 1        |
| Date                | 2/6/2023 |
| Initial Height (mm) | 30.00    |
| Final Height (mm)   | 30.00    |
| Difference          | 0.00     |
| Sample Height (mm)  | 120      |
| Swelling Ratio %    | 0.00%    |

### Loading Reading :

|                   |      |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|------|
| Penetration (mm)  | 0.64 | 1.27 | 1.91 | 2.54 | 3.18 | 3.80 | 4.45 | 5.09 | 6.40 |
| Load Reading (kg) | 63   | 242  | 480  | 840  | 1236 | 1627 | 1990 | 2250 | 3357 |
| Load (kN)         | 0.6  | 2.2  | 4.3  | 7.6  | 11.1 | 14.6 | 17.9 | 20.3 | 30.2 |



### Calculations :-

| Penetration | Load  | Standard Load | CBR    | Mold - Compaction | Compaction | CBR              |
|-------------|-------|---------------|--------|-------------------|------------|------------------|
| (mm)        | (Kpa) | (lb)          | (%)    | (%)               | (%)        | 98 % على نسبة 98 |
| 2.50        | 7.56  | 13.4          | 56.6%  | 100               | 98         | 58.5%            |
| 5.00        | 20.25 | 20.0          | 101.1% |                   |            | 99.1%            |

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :




Consultant Engineer

Name :

Sign :




|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                      |                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>Electric Express Trains - HSH</b><br><b>From El Ain El Sokhna City To El Alamein - MATROUH</b><br><b>Section - 7 From FOKA To MARSA MATROUH</b><br><b>From Station 501+000 To Station 568+177</b> | Date of Casting: 09-11-23<br>Name of Engineer:  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|

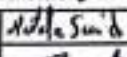
### Compressive strength of concrete cubes

|               |                        |
|---------------|------------------------|
| Operating Lab | Al Tawakol Central Lab |
|---------------|------------------------|

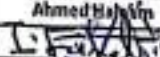
|                   |                       |             |
|-------------------|-----------------------|-------------|
| Date of Casting : | 09-11-23              |             |
| Company Name :    | knor Sinaa            |             |
| Station :         | 501 + 222 : 504 + 333 | left double |

|                |                |
|----------------|----------------|
| Plant          | Cairo (herm 1) |
| Cement         | OPC            |
| Cement content | 300            |
| Strength       | 250            |

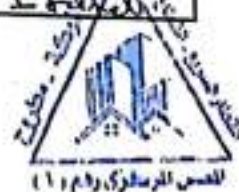
| SNO | Description                         | 7 days   |        |        |
|-----|-------------------------------------|----------|--------|--------|
|     |                                     | 09-11-23 |        |        |
| 1   | Cube number                         | 1        | 2      | 3      |
| 2   | weight (gm)                         | 8090     | 8090   | 8210   |
| 3   | Failure load (KN)                   | 499      | 529    | 467    |
| 4   | Comp. Strength Kg/cm <sup>2</sup>   | 226.00   | 239.67 | 218.58 |
| 5   | Average Strenght Kg/cm <sup>2</sup> | 225.78   |        |        |
| 6   | Percentage %                        | 92.31    |        |        |

|                           |                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------|
| Khaled Kandeel Engineer : |                                                                                     |
| Eng                       |  |
| sign                      |  |

|                     |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| Plant Qc Engineer : |                                                                                     |
| Eng                 |  |
| sign                |  |

|                |                                                                                      |
|----------------|--------------------------------------------------------------------------------------|
| Lab Engineer : |                                                                                      |
| Eng            | Ahmed Hisham                                                                         |
| sign           |  |

|                       |                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------|
| Contractor Engineer : |                                                                                       |
| Eng                   | Ahmed Alalala                                                                         |
| sign                  |  |

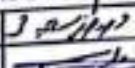


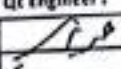
|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                  |                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    | <b>Hectik Express Train - HSR</b><br><b>From El Ain El Sokhna City To El Marmar - MATROUH</b><br><b>Section - 7 From FOKA To MARSA MATROUH</b><br><b>From Station 501x000 To Station 568x177</b> |  |
| <b>Compressive strength of concrete cubes</b>                                                                                                                                                                                                         |                                                                                                                                                                                                  |                                                                                     |
| <b>Operating Lab</b>                                                                                                                                                                                                                                  | <b>Al Tawakol Control Lab</b>                                                                                                                                                                    |                                                                                     |

|                          |                 |             |
|--------------------------|-----------------|-------------|
| <b>Date of Casting :</b> | 02-11-23        |             |
| <b>Company Name :</b>    | Khor Sinaa      |             |
| <b>Station :</b>         | 501x222-501x333 | left double |

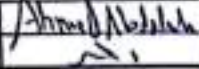
| Plant          | Casting (Beam 1) |
|----------------|------------------|
| Cement         | GPC              |
| Cement content | 310              |
| Strength       | 250              |

| SNO | Description                         | 28 days  |        |        |
|-----|-------------------------------------|----------|--------|--------|
|     |                                     | 30-11-23 |        |        |
| 1   | Cube number                         | 1        | 2      | 3      |
| 2   | weight (gm)                         | 8190     | 8245   | 8165   |
| 3   | Failure load (KN)                   | 553      | 640    | 581    |
| 4   | Comp. Strength Kg/cm <sup>2</sup>   | 250.55   | 283.96 | 263.23 |
| 5   | Average Strength Kg/cm <sup>2</sup> | 267.91   |        |        |
| 6   | Percentage %                        | 107.17   |        |        |

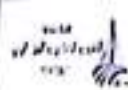
|                                  |                                                                                     |
|----------------------------------|-------------------------------------------------------------------------------------|
| <b>Khaled Kandeel Engineer :</b> |                                                                                     |
| Eng                              |  |
| sign                             |  |

|                            |                                                                                     |
|----------------------------|-------------------------------------------------------------------------------------|
| <b>Plant Qc Engineer :</b> |                                                                                     |
| Eng                        |  |
| sign                       |  |

|                       |                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------|
| <b>Lab Engineer :</b> |                                                                                      |
| Eng                   | Ahmed H. El-Em                                                                       |
| sign                  |  |

|                              |                                                                                       |
|------------------------------|---------------------------------------------------------------------------------------|
| <b>Contractor Engineer :</b> |                                                                                       |
| Eng                          |  |
| sign                         |  |



|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                      |                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    | <b>Electric Express Train - HSR</b><br><b>From El Ain El Sokhna City To El Alamein - MATROUH</b><br><b>Section - 7 From FOKA To MANSAB MATROUH</b><br><b>From Station 501+000 To Station 568+177</b> |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|

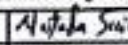
### Compressive strength of concrete cubes

|               |                         |
|---------------|-------------------------|
| Operating Lab | Al Tawakeel Central Lab |
|---------------|-------------------------|

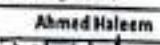
|                   |                                        |
|-------------------|----------------------------------------|
| Date of Casting : | 01-11-23                               |
| Company Name :    | Khor Sira                              |
| Station :         | 504 + 325 : 504 + 348      left single |

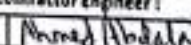
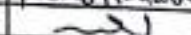
|                |               |
|----------------|---------------|
| Plant          | Cake (borm 1) |
| Cement         | OFC           |
| Cement content | 300           |
| Strength       | 250           |

| SNO | Description                         | 7 days   |        |        |
|-----|-------------------------------------|----------|--------|--------|
|     |                                     | 08-11-23 |        |        |
| 1   | Cube number                         | 1        | 2      | 3      |
| 2   | Weight (gm)                         | 8160     | 8110   | 8170   |
| 3   | Failure load (KN)                   | 594      | 563    | 530    |
| 4   | Comp. Strength Kg/cm <sup>2</sup>   | 265.12   | 255.08 | 240.13 |
| 5   | Average Strength Kg/cm <sup>2</sup> | 254.78   |        |        |
| 6   | Percentage %                        | 100.01   |        |        |

|                           |                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------|
| Khaled Kandeel Engineer : |                                                                                     |
| Eng                       |  |
| sign                      |  |

|                     |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| Plant Qc Engineer : |                                                                                     |
| Eng                 |  |
| sign                |  |

|                |                                                                                     |
|----------------|-------------------------------------------------------------------------------------|
| Lab Engineer : |                                                                                     |
| Eng            | Ahmed Haseem                                                                        |
| sign           |  |

|                       |                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------|
| Contractor Engineer : |                                                                                       |
| Eng                   |  |
| sign                  |  |

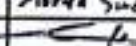


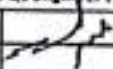
|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    | <b>Electric Express Train - HSR</b><br><b>From El Ain El Sokhna City To El Alamein - MATROUH</b><br><b>Section - 7 From FOKA To MARSA MATROUH</b><br><b>From Station 504+000 To Station 568+177</b> |  |
| <b>Compressive strength of concrete cubes</b>                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                     |
| <b>Operating Lab</b>                                                                                                                                                                                                                                  | <b>Al Tawakol Central Lab</b>                                                                                                                                                                       |                                                                                     |

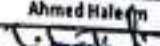
|                          |                                        |
|--------------------------|----------------------------------------|
| <b>Date of Casting :</b> | 01-11-23                               |
| <b>Company Name :</b>    | Shoa Shoa                              |
| <b>Station :</b>         | 504 + 225 : 504 + 348      left single |

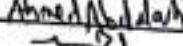
|                |                |
|----------------|----------------|
| Plant          | Cairo (borm 1) |
| Cement         | OPC            |
| Cement content | 310            |
| Strength       | 250            |

| SNO | Description                         | 28 days  |        |        |
|-----|-------------------------------------|----------|--------|--------|
|     |                                     | 29-11-23 |        |        |
| 1   | Cube number                         | 1        | 2      | 3      |
| 2   | weight (gm)                         | 8210     | 8290   | 8380   |
| 3   | Failure load (KN)                   | 571      | 613    | 607    |
| 4   | Comp. Strength Kg/cm <sup>2</sup>   | 304.01   | 277.73 | 275.01 |
| 5   | Average Strength Kg/cm <sup>2</sup> | 285.58   |        |        |
| 6   | Percentage %                        | 114.23   |        |        |

|                                  |                                                                                     |
|----------------------------------|-------------------------------------------------------------------------------------|
| <b>Khaled Kandeel Engineer :</b> |                                                                                     |
| Eng                              | Mohamed Soud                                                                        |
| sign                             |  |

|                            |                                                                                     |
|----------------------------|-------------------------------------------------------------------------------------|
| <b>Plant Qc Engineer :</b> |                                                                                     |
| Eng                        |  |
| sign                       |  |

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| <b>Lab Engineer :</b> |                                                                                     |
| Eng                   | Ahmed Hafeez                                                                        |
| sign                  |  |

|                              |                                                                                       |
|------------------------------|---------------------------------------------------------------------------------------|
| <b>Contractor Engineer :</b> |                                                                                       |
| Eng                          | Ahmed Abdelaziz                                                                       |
| sign                         |  |

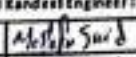


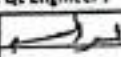
|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    | <b>Electric Express Train - HSR</b><br><b>From El Ain El Sokhna City To El Alamein - MATROUH</b><br><b>Section - 7 From FOXA To MARSA MATROUH</b><br><b>From Station 504+000 To Station 568+177</b> |  |
| <b>Compressive strength of concrete cubes</b>                                                                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                     |
| Operating Lab                                                                                                                                                                                                                                         | Al Tawakol Central Lab                                                                                                                                                                              |                                                                                     |

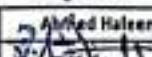
|                       |                                                                                                                                                           |                       |             |                       |             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|-----------------------|-------------|
| Date of Casting :     | 08-11-23                                                                                                                                                  |                       |             |                       |             |
| Company Name :        | Knot Sinaa                                                                                                                                                |                       |             |                       |             |
| Station :             | <table border="1"> <tr> <td>504 + 408 : 504 + 511</td> <td>left single</td> </tr> <tr> <td>504 + 334 : 504 + 345</td> <td>left double</td> </tr> </table> | 504 + 408 : 504 + 511 | left single | 504 + 334 : 504 + 345 | left double |
| 504 + 408 : 504 + 511 | left single                                                                                                                                               |                       |             |                       |             |
| 504 + 334 : 504 + 345 | left double                                                                                                                                               |                       |             |                       |             |

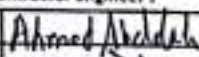
|                |                |
|----------------|----------------|
| Plant          | Cairo (barm 1) |
| Cement         | OPC            |
| Cement content | 300            |
| Strength       | 250            |

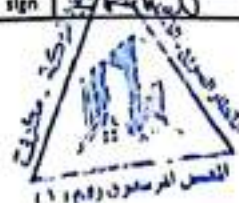
| SNO | Description             | 7 days   |        |        |
|-----|-------------------------|----------|--------|--------|
|     |                         | 11-11-23 |        |        |
| 1   | Cube number             | 1        | 2      | 3      |
| 2   | weight ( gm )           | 8155     | 8150   | 8162   |
| 3   | Failure load ( KN )     | 583      | 495    | 600    |
| 4   | Comp. Strength Kg/cm²   | 266.14   | 214.27 | 271.84 |
| 5   | Average Strenght Kg/cm² | 253.42   |        |        |
| 6   | Percentage %            | 101.37   |        |        |

|                           |                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------|
| Khaled Kandeel Engineer : |                                                                                     |
| Eng                       |  |
| sign                      |  |

|                     |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| Plant Qc Engineer : |                                                                                     |
| Eng                 |  |
| sign                |  |

|                |                                                                                     |
|----------------|-------------------------------------------------------------------------------------|
| Lab Engineer : |                                                                                     |
| Eng            | Ahmed Hafeem                                                                        |
| sign           |  |

|                       |                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------|
| Contractor Engineer : |                                                                                       |
| Eng                   | Ahmed Abdelhaleem                                                                     |
| sign                  |  |





Electric Express Train - MSR  
From El Ain El Sokhna City To El Alamein - MATROUH  
Section - 7 From FOKA To MARSA MATROUH  
From Station 508+000 To Station 568+177

Handwritten signatures and stamps.

Compressive strength of concrete cubes

Operating Lab: Al Tawakol Central Lab

|                   |                                                |
|-------------------|------------------------------------------------|
| Date of Casting : | 04-11-23                                       |
| Company Name :    | Shor Sinas                                     |
| Station :         | 504 + 408 : 504 + 451<br>504 + 386 : 504 + 345 |
|                   | left single<br>left double                     |

| Plant          | Cairo (beam 1) |
|----------------|----------------|
| Cement         | OPC            |
| Cement content | 330            |
| Strength       | 250            |

| SNO | Description                         | 28 days  |        |        |
|-----|-------------------------------------|----------|--------|--------|
|     |                                     | 02-12-23 |        |        |
| 1   | Cube number                         | 1        | 2      | 3      |
| 2   | weight (gm)                         | 8190     | 8160   | 8165   |
| 3   | Failure load (KN)                   | 481      | 708    | 658    |
| 4   | Comp. Strength Kg/cm <sup>2</sup>   | 308.54   | 318.51 | 294.95 |
| 5   | Average Strenght Kg/cm <sup>2</sup> | 307.33   |        |        |
| 6   | Percentage %                        | 122.93   |        |        |

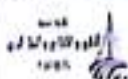
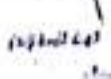
|                           |              |
|---------------------------|--------------|
| Rashed Kandeel Engineer : |              |
| Eng                       | Mohamed Soud |
| sign                      | [Signature]  |

|                     |             |
|---------------------|-------------|
| Plant Qc Engineer : |             |
| Eng                 | [Signature] |
| sign                |             |

|                |             |
|----------------|-------------|
| Lab Engineer : |             |
| Eng            | Ahmed Hafez |
| sign           | [Signature] |

|                       |             |
|-----------------------|-------------|
| Contractor Engineer : |             |
| Eng                   | [Signature] |
| sign                  | [Signature] |



|                                                                                                                                                                                                                                                       |                                                                                                                                                                                                     |                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>Electric Express Train - HSR</b><br><b>From El Ain El Sokhna City To El Alamein - MATROUH</b><br><b>Section - 7 From FOXA To MARSA MATROUH</b><br><b>From Station 504+000 To Station 568+177</b> |   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Compressive strength of concrete cubes

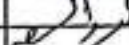
|               |                        |
|---------------|------------------------|
| Operating Lab | Al Tawakol Central Lab |
|---------------|------------------------|

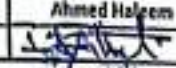
|                   |                                        |
|-------------------|----------------------------------------|
| Date of Casting : | 07-11-23                               |
| Company Name :    | Knox Sinaa                             |
| Station :         | 504 + 525 ; 504 + 654      left single |

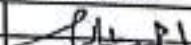
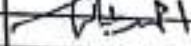
|                |                |
|----------------|----------------|
| Plant          | Cairo (beam 1) |
| Cement         | OPC            |
| Cement content | 310            |
| Strength       | 350            |

| SNO | Description                         | 7 days   |        |        |
|-----|-------------------------------------|----------|--------|--------|
|     |                                     | 14-11-23 |        |        |
| 1   | Cube number                         | 1        | 2      | 3      |
| 2   | weight (gm)                         | 8200     | 8265   | 8225   |
| 3   | Failure load (KN)                   | 551      | 517    | 521    |
| 4   | Comp. Strength Kg/cm <sup>2</sup>   | 249.64   | 234.24 | 236.05 |
| 5   | Average Strength Kg/cm <sup>2</sup> | 239.97   |        |        |
| 6   | Percentage %                        | 95.95    |        |        |

|                           |                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------|
| Khaled Kandeel Engineer : |                                                                                     |
| Eng                       | Mahmoud Said                                                                        |
| sign                      |  |

|                     |                                                                                     |
|---------------------|-------------------------------------------------------------------------------------|
| Plant Qc Engineer : |                                                                                     |
| Eng                 |  |
| sign                |  |

|                |                                                                                      |
|----------------|--------------------------------------------------------------------------------------|
| Lab Engineer : |                                                                                      |
| Eng            | Ahmed Haseem                                                                         |
| sign           |  |

|                       |                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------|
| Contractor Engineer : |                                                                                       |
| Eng                   |  |
| sign                  |  |





الهيئة العامة  
للطرق والكباري

المنطقة الخامسة - ( غرب الدلتا )

السيد المهندس / رئيس قطاع التنفيذ والمناطق

تحية طيبة.. وبعد،،

بالإحالة إلى مشروع القطار السريع ( العين السخنة - العاصمة الإدارية - برج العرب -  
مرسى مطروح )

نتشرف بأن نرفق لسيادتكم طيه المقاييس المعلقة لقطاعات الآتية:

أولا : القطاع السابع (فوكة/مطروح) :

| م | اسم الشركة                                | بداية القطاع<br>( كم ) | نهاية قطاع<br>( ) | التكلفة (مليون) |
|---|-------------------------------------------|------------------------|-------------------|-----------------|
| 1 | كنوز سيناء للمقاولات<br>العامة والتوريدات | 504+180                | 5010              | 7,980,000       |

برجاء من سيادتكم التفضل بالاحاطه والتوجيه بالا

وتفضلوا بقبول فائق الاحترام،،

رئيس الإدارة المركزية

منطقة الخامسة - غرب الدلتا

مهندس /

" هاني محمد محمود طه "

