

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 72
Sample No. : 03

Dear Gentleman,

Attached here with the Soil Embankment delivered on 06/11/2022

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according to ASTM D-1140.
3. Liquid limits and plasticity index of soil according to ASTM D-4318.
4. Soil classification according to Project Specs.
5. Proctor Test according to ASTM D-1557

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /


Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 72
Sample No. : 03

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	94.5
25	85.3
19	76.2
12.50	61.5
9.50	49.3
4.75	33.4
2.36	31.1
2.00	29.5
1.18	24.4
0.600	20.7
0.425	17.3
0.300	15.7
0.150	14.2

Signature /


مكتب معامل الاستشارات الهندسية
القاهرة
رقم التسجيل 27367231 - 27363093
البريد الإلكتروني: cel@cel-egypt.com

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 72
Sample No. : 03

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ M (No.200)	12.4

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 72
Sample No. : 03

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

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

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 72
Sample No. : 03

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
		(A-1-a)	(A-1-b)
• Group Classification	(A-1-a)	(A-1-a)	(A-1-b)
2.00 mm (No.10).	29.5	Max 50 %	-----
0.425 mm (No. 40).	17.3	Max 30 %	Max 50 %
0.075 mm (No. 200).	12.4	Max 15 %	Max 15 %
Characteristics of fraction passing 0.425 mm (No.40)			
Liquid Limit	NP	-----	-----
Plasticity index	NP	Max 6 %	Max 6 %

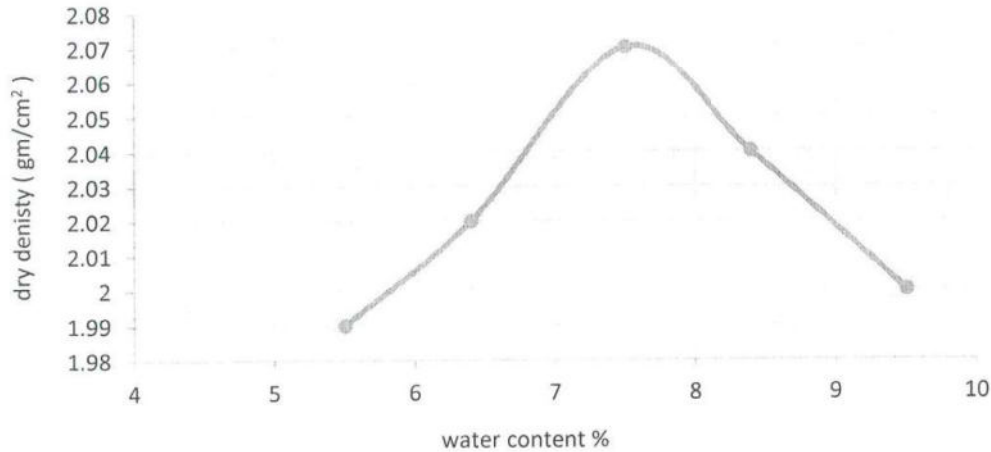
The test results are (☒ Comply - ☐ Not Comply) with specifications limits

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 72
Sample No. : 03

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



- Max dry density (gm/cm³) : 2.07
- Optimum moisture content % : 7.5

Signature /

مكتب معامل الاستشارات الهندسية
الزمالك - القاهرة
رقم تسجيل المهندس: ٢٧٣٦٧٢٣١ - ٢٧٣٦٣٠٩٣
٢٠٢٢ - ٢٠٢٣

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 73
Sample No. : 04

Dear Gentleman,

Attached here with the Soil Embankment delivered on 01/11/2022

Materials test

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

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 73
Sample No. : 04

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	95.3
25	86.1
19	77.9
12.50	63.4
9.50	50.6
4.75	32.6
2.36	29.9
2.00	28.7
1.18	24.1
0.600	20.7
0.425	16.9
0.300	15.2
0.150	13.9

Signature / ...



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 73
Sample No. : 04

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ M (No.200)	12.1

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 73
Sample No. : 04

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

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

Signature/.....



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 73
Sample No. : 04

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
		(A-1-a)	(A-1-b)
• Group Classification	(A-1-a)	(A-1-a)	(A-1-b)
2.00 mm (No.10).	28.7	Max 50 %	-----
0.425 mm (No. 40).	16.9	Max 30 %	Max 50 %
0.075 mm (No. 200).	12.1	Max 15 %	Max 15 %
Characteristics of fraction passing 0.425 mm (No.40)			
Liquid Limit	NP	-----	-----
Plasticity index	NP	Max 6 %	Max 6 %

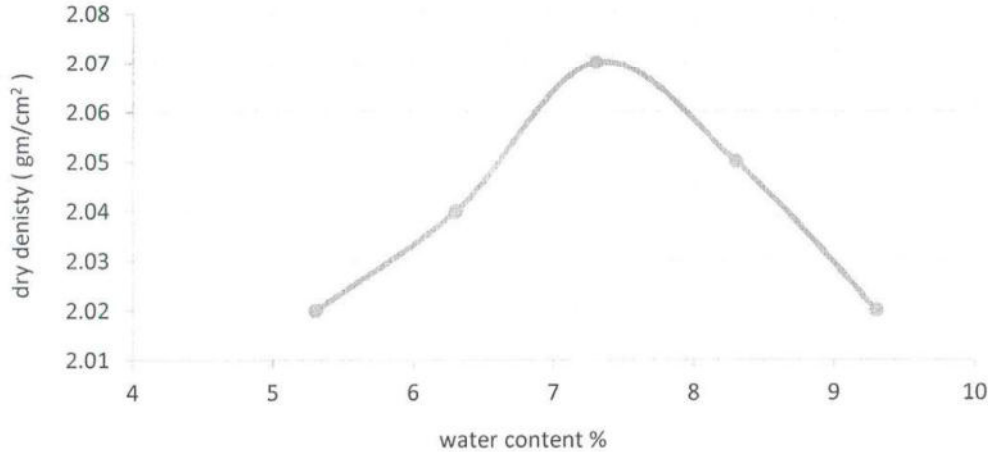
The test results are (☒ Comply - ☐ Not Comply) with specifications limits

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 73
Sample No. : 04

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



- Max dry density (gm/cm²) : 2.07
- Optimum moisture content % : 7.3

Signature /

مكتب معامل الاستشارات الهندسية - القاهرة
CONSULTING ENGINEERING BUREAU & LABORATORIES - CAIRO
رقم التسجيل المبدئي : ٢٧٣٦٧٢٣١ - ٢٧٣٦٣٠٩٣
المرجع لمصر : (٢٠١٢) - ٢٠١٣

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 73
Sample No. : 04

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

penetration		stress on piston (Mpa)
mm	Inch	
0.64	0.025	1.78
1.27	0.050	1.90
1.91	0.075	2.03
2.54	0.100	2.16
3.18	0.125	2.28
3.81	0.150	2.41
4.45	0.175	2.54
5.08	0.200	2.66
5.71	0.225	2.79
6.35	0.250	2.92

CBR Result	Stress (Mpa)		CBR %
At 0.1 inch (2.54 mm) penetration	St. Value	Sample results	31.2
	6.90	2.16	

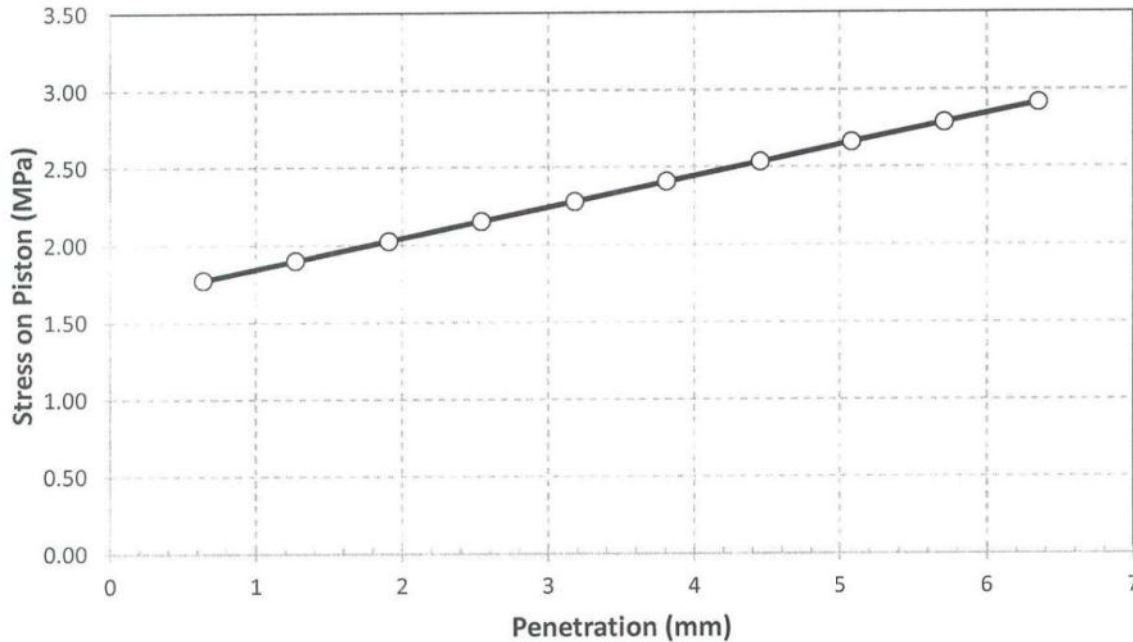
Notes :

- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of 2.07 (gm /cm³) at 7.3 % optimum water content
- 3- Surcharge load 4.50 Kg

Signature /

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (504+160)
Delivery Date : 06/11/2022
Reporting Date : 12/11/2022
Reporting No. : 73
Sample No. : 04

Load Penetration Curve of CBR Test ASTM D-1883



Signature /

مكتب معامل الاستشارات الهندسية
الاستشارات الهندسية
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Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 74
Sample No. : 05

Dear Gentleman,

Attached here with the Soil Embankment delivered on 12/11/2022

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according to ASTM D-1140.
3. Liquid limits and plasticity index of soil according to ASTM D-4318.
4. Soil classification according to Project Specs.
5. Proctor Test according to ASTM D-1557

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 74
Sample No. : 05

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	98.1
25	82.6
19	71.2
12.50	59.9
9.50	42.7
4.75	34.5
2.36	32.3
2.00	30.7
1.18	26.0
0.600	22.8
0.425	19.6
0.300	16.0
0.150	13.8

Signature /


Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 74
Sample No. : 05

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ M (No.200)	11.7

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 74
Sample No. : 05

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

Test	Results (%)
Liquid Limit	23.5
Plastic Limit	18.4
Plasticity Index	5.1

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 74
Sample No. : 05

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
• Group Classification	(A-1-a)	(A-1-a)	(A-1-b)
2.00 mm (No.10).	30.7	Max 50 %	-----
0.425 mm (No. 40).	19.6	Max 30 %	Max 50 %
0.075 mm (No. 200).	11.7	Max 15 %	Max 15 %
Characteristics of fraction passing 0.425 mm (No.40)			
Liquid Limit	23.5	-----	-----
Plasticity index	5.1	Max 6 %	Max 6 %

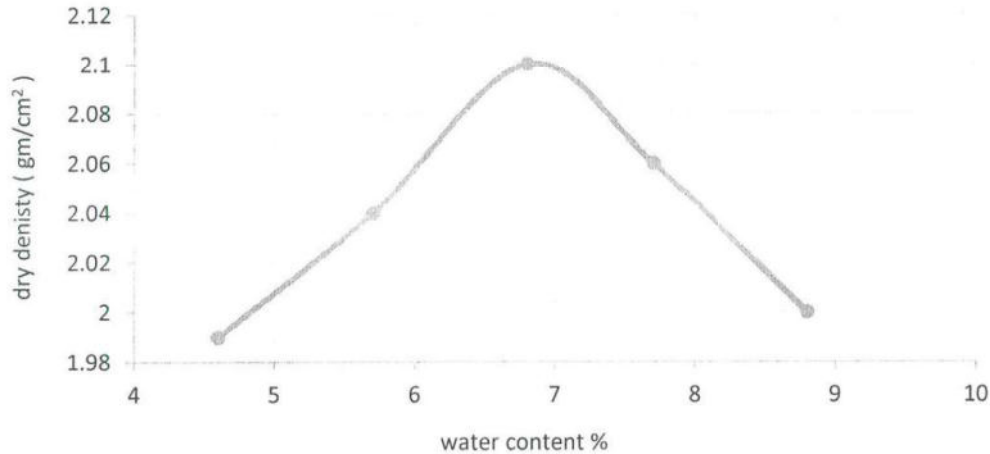
The test results are (☒ Comply - ☐ Not Comply) with specifications limits

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 74
Sample No. : 05

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



- Max dry density (gm/cm²) : 2.10
- Optimum moisture content % : 6.8

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 75
Sample No. : 06

Dear Gentleman,

Attached here with the Soil Embankment delivered on 01/11/2022

Materials test

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

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /


مكتب معامل الاستشارات الهندسية
الهندسة المدنية
رقم التسجيل المهنى: ٢٢٢٣٦٧٢٣١ - ٢٢٢٣٦٣٠٩٣
تليفون + فاكس : ٢٧٣٦٣٠٩٣ - ٢٧٣٦٧٢٣١
www.cel-egypt.com

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 75
Sample No. : 06

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	97.3
25	83.2
19	70.7
12.50	58.3
9.50	45.5
4.75	38.1
2.36	36.2
2.00	33.9
1.18	29.7
0.600	24.8
0.425	21.6
0.300	18.2
0.150	15.8

Signature /.....



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 75
Sample No. : 06

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ M (No.200)	12.8

Signature /


Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 75
Sample No. : 06

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

Test	Results (%)
Liquid Limit	22.8
Plastic Limit	18.3
Plasticity Index	4.5

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 75
Sample No. : 06

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
• Group Classification	(A-1-a)	(A-1-a)	(A-1-b)
2.00 mm (No.10).	33.9	Max 50 %	-----
0.425 mm (No. 40).	21.6	Max 30 %	Max 50 %
0.075 mm (No. 200).	12.8	Max 15 %	Max 15 %
Characteristics of fraction passing 0.425 mm (No.40)			
Liquid Limit	22.8	-----	-----
Plasticity index	4.5	Max 6 %	Max 6 %

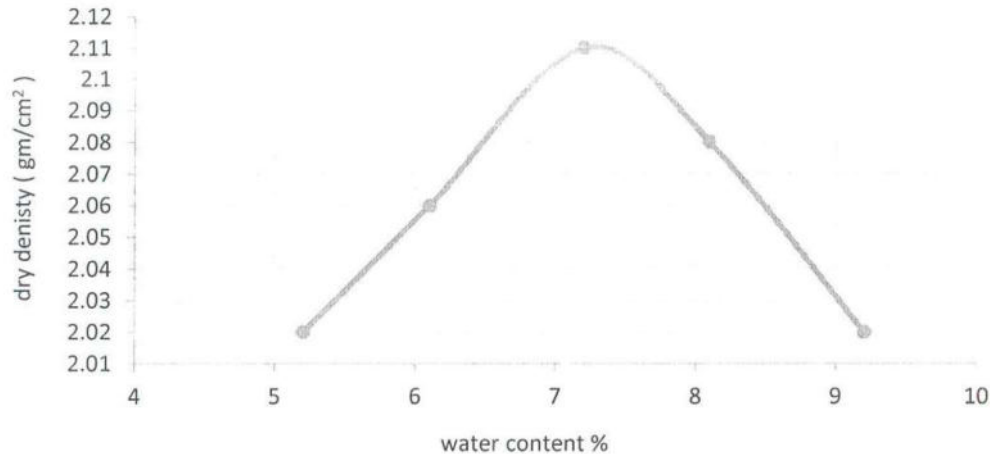
The test results are (☒ Comply - ☐ Not Comply) with specifications limits

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 75
Sample No. : 06

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



- Max dry density (gm/cm²) : 2.11
- Optimum moisture content % : 7.2

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 75
Sample No. : 06

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

penetration		stress on piston (Mpa)
mm	Inch	
0.64	0.025	2.18
1.27	0.050	2.33
1.91	0.075	2.54
2.54	0.100	2.74
3.18	0.125	2.94
3.81	0.150	3.14
4.45	0.175	3.35
5.08	0.200	3.55
5.71	0.225	3.75
6.35	0.250	3.96

CBR Result	Stress (Mpa)		CBR %
At 0.1 inch (2.54 mm) penetration	St. Value	Sample results	39.7
	6.90	2.74	

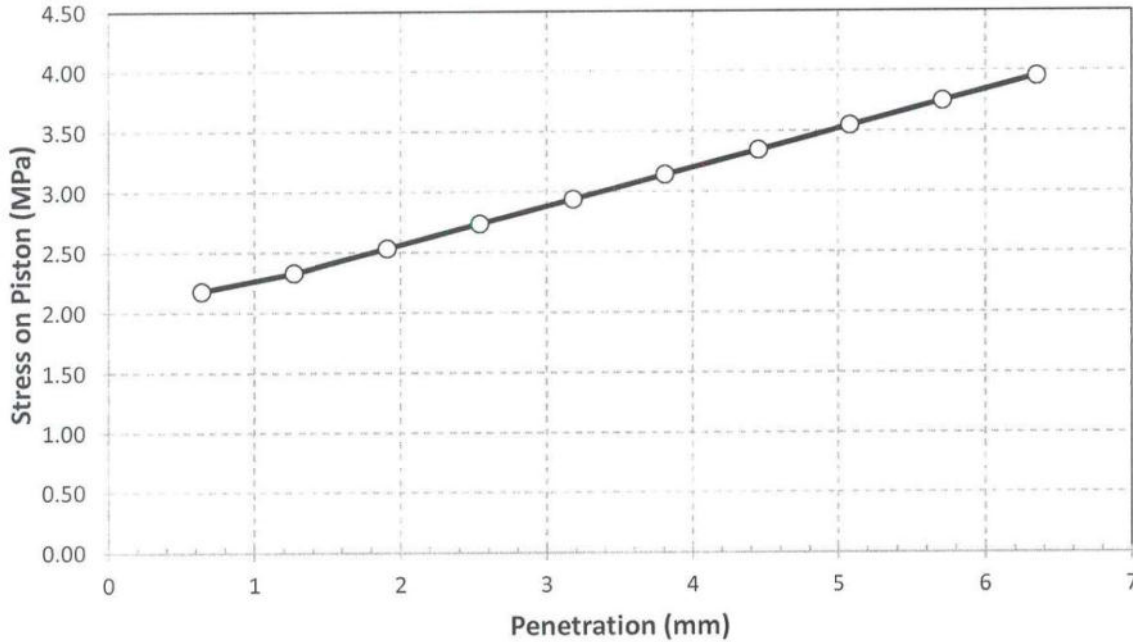
Notes :

- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of 2.11 (gm /cm³)
At 7.2 % optimum water content.
- 3- Surcharge load 4.50 Kgs.

Signature

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (501+660): (503+740)
Delivery Date : 12/11/2022
Reporting Date : 18/11/2022
Reporting No. : 75
Sample No. : 06

Load Penetration Curve of CBR Test ASTM D-1883



Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 76
Sample No. : 07

Dear Gentleman,

Attached here with the Soil Embankment delivered on 16/11/2022

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according to ASTM D-1140.
3. Liquid limits and plasticity index of soil according to ASTM D-4318.
4. Soil classification according to Project Specs.
5. Proctor Test according to ASTM D-1557

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature / 

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 76
Sample No. : 07

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	93.5
25	80.1
19	71.7
12.50	59.3
9.50	43.7
4.75	31.5
2.36	29.0
2.00	27.5
1.18	24.4
0.600	20.8
0.425	18.4
0.300	15.0
0.150	13.7

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 76
Sample No. : 07

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ M (No.200)	11.5

Signature /.....



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 76
Sample No. : 07

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

Test	Results (%)
Liquid Limit	22.3
Plastic Limit	17.7
Plasticity Index	4.6

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 76
Sample No. : 07

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
• Group Classification	(A-1-a)	(A-1-a)	(A-1-b)
2.00 mm (No.10).	27.5	Max 50 %	-----
0.425 mm (No. 40).	18.4	Max 30 %	Max 50 %
0.075 mm (No. 200).	11.5	Max 15 %	Max 15 %
Characteristics of fraction passing 0.425 mm (No.40)			
Liquid Limit	22.3	-----	-----
Plasticity index	4.6	Max 6 %	Max 6 %

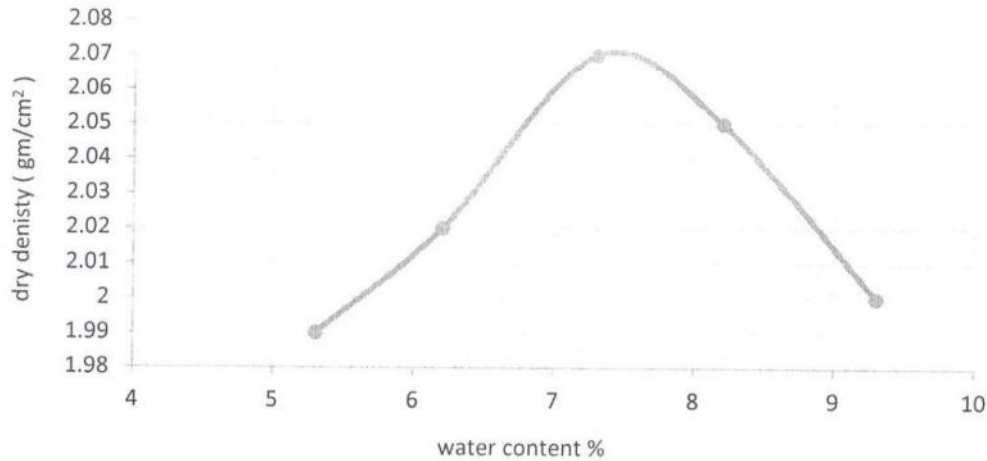
The test results are (☒ Comply - ☐ Not Comply) with specifications limits

Signature



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 76
Sample No. : 07

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



- Max dry density (gm/cm²) : 2.07
- Optimum moisture content % : 7.3

Signature

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 77
Sample No. : 08

Dear Gentleman,

Attached here with the Soil Embankment delivered on 01/11/2022

Materials test

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

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 77
Sample No. : 08

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	94.8
25	84.1
19	77.6
12.50	63.3
9.50	48.1
4.75	32.8
2.36	30.0
2.00	28.6
1.18	25.8
0.600	23.7
0.425	19.2
0.300	17.0
0.150	14.2

Signature/.....



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
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Reporting No. : 77
Sample No. : 08

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ M (No.200)	12.1

Signature /



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Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 77
Sample No. : 08

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

Test	Results (%)
Liquid Limit	24.1
Plastic Limit	19.2
Plasticity Index	4.9

Signature /



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Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 77
Sample No. : 08

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
• Group Classification	(A-1-a)	(A-1-a)	(A-1-b)
2.00 mm (No.10).	28.6	Max 50 %	-----
0.425 mm (No. 40).	19.2	Max 30 %	Max 50 %
0.075 mm (No. 200).	12.1	Max 15 %	Max 15 %
Characteristics of fraction passing 0.425 mm (No.40)			
Liquid Limit	24.1	-----	-----
Plasticity index	4.9	Max 6 %	Max 6 %

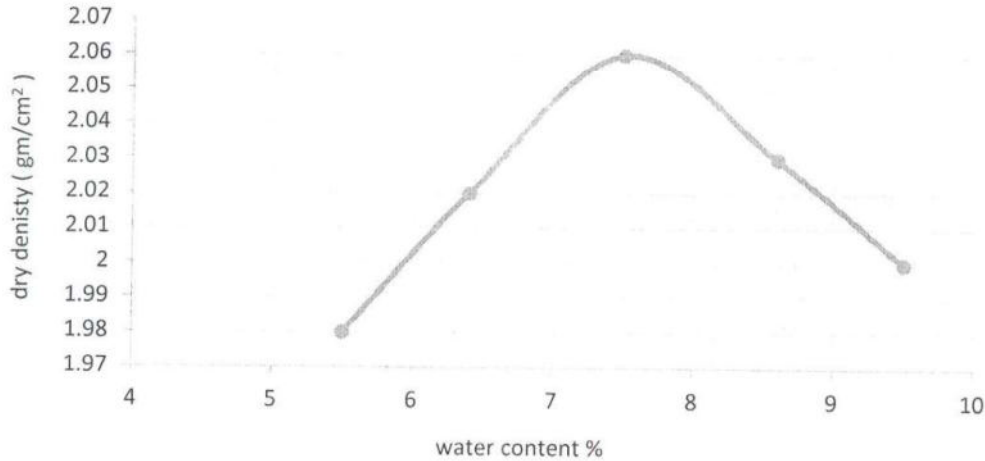
The test results are (☒ Comply - ☐ Not Comply) with specifications limits

Signature



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 77
Sample No. : 08

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



- Max dry density (gm/cm²) : 2.06
- Optimum moisture content % : 7.5

Signature /

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment – middle embankment
Location : St (500+400): (504+160)
Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 77
Sample No. : 08

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

penetration		stress on piston (Mpa)
mm	Inch	
0.64	0.025	1.93
1.27	0.050	2.13
1.91	0.075	2.28
2.54	0.100	2.43
3.18	0.125	2.59
3.81	0.150	2.74
4.45	0.175	2.89
5.08	0.200	3.04
5.71	0.225	3.20
6.35	0.250	3.35

CBR Result	Stress (Mpa)		CBR %
At 0.1 inch (2.54 mm) penetration	St. Value	Sample results	35.3
	6.90	2.43	

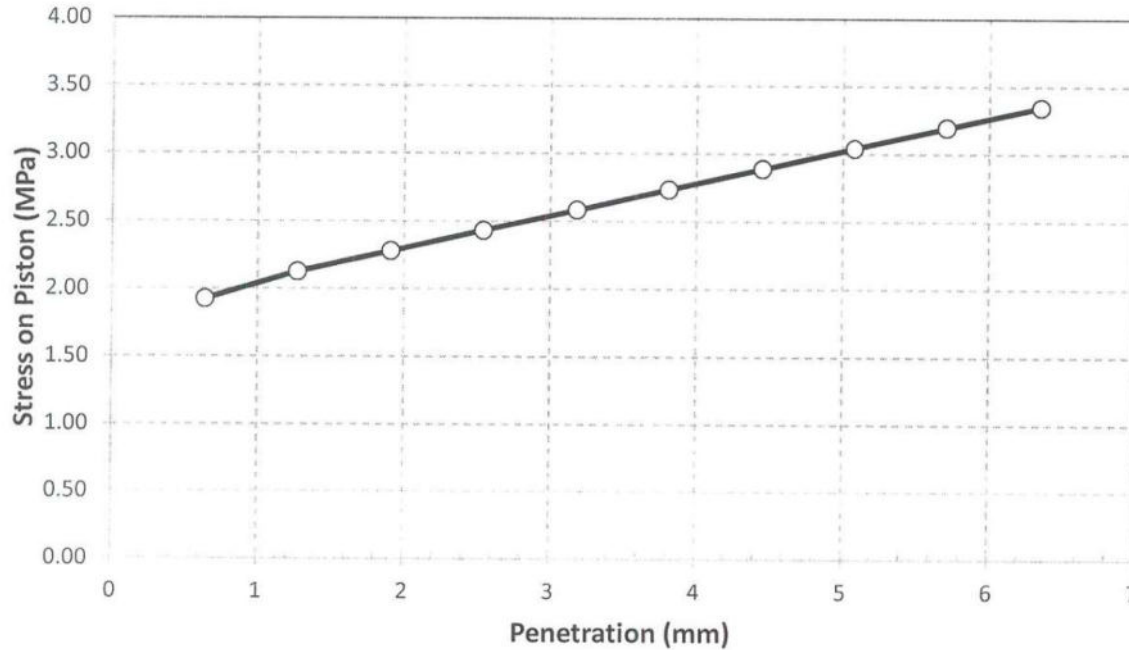
Notes :

- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of 2.06 (gm /cm³)
At 7.5 % optimum water content.
- 3- Surcharge load 4.50 Kg.

Signature /

Company Name : EG CONTRACK
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Delivery Date : 16/11/2022
Reporting Date : 21/11/2022
Reporting No. : 77
Sample No. : 08

Load Penetration Curve of CBR Test ASTM D-1883



Signature /

Signature /

قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع: اعمال الجسر الترابي والاعمال الصناعية لمشروع القطار الكهربائي السريع (العين السخنة - مطروح) لتنفيذ اعمال الجسر الترابي (قطاع العلمين / فوكه) المسافة من الكم 500+000 الى الكم 504+160 بطول 4.16 كيلو متر اتجاه سيدى حنيش

رقم البند و بيانه : (١-٣) أعمال توريد وتشغيل اترية صالحة للردم
تنفيذ : شركة ايجي كونترك

الكمية	الابعاد (متر)		الموقع الكيلومري		بيان الاعمال بالمقايضة
	مساحة المقطع	طول	الى	من	
13219.63	6.610	2000	502+000	500+000	القطاع الأول
17549.60	8.125	2160	504+160	502+000	القطاع الثاني
30769.23					اجمالي الكميات خلال فترة المستخلص الحالية (م ³)
30769.23					الاجمالي الكلي (م ³)

مهندس الهيئة
م / إبراهيم الحناوى

مهندسى الاستشاري
مكتب د سعد الجوشي
م / مصطفى نجم

مهندس الاستشاري
مكتب XYZ
م / محمد خليل

مهندس الشركة
م / محمود عمر

قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع: اعمال الجسر الترابي والاعمال الصناعية لمشروع القطار الكهربائي السريع (العين السخنة - مطروح) لتنفيذ اعمال الجسر الترابي (قطاع العلمين / فوكه)
المسافة من الكم 500+000 الى الكم 504+160 بطول 4.16 كيلو متر اتجاه سيدى حنيش

رقم البند و بيانه : (١-٣) علاوة مسافة نقل 215 كم
تنفيذ : شركة ايجي كونترك

الكمية	الابعاد (متر)		الموقع الكيلومري		بيان الاعمال بالمقاييس
	مساحة المقطع	طول	الى	من	
13219.63	6.610	2000	502+000	500+000	القطاع الأول
17549.60	8.125	2160	504+160	502+000	القطاع الثاني
30769.23	اجمالي الكميات خلال فترة المستخلص الحالية (م ³)				
30769.23	الاجمالي الكلي (م ³)				

مهندس الهيئة

م / إبراهيم الحناوي

مهندس الاستشاري

م / مصطفى نجم

مهندس الاستشاري

م / محمد خليل

م / محمد خليل

مهندس الشركة

م / محمود عمر

م / محمود عمر



قائمة الكميات الواردة بالمستخلص جاري (2)

مشروع: اعمال الجسر الترابي والاعمال الصناعية لمشروع القطار الكهربائي السريع (العين السخنة - مطروح) لتنفيذ اعمال الجسر الترابي (قطاع العلمين / فوكه)
المسافة من الكم 500+000 الى الكم 504+160 بطول 4.16 كيلو متر اتجاه سيدى حنيش

رقم البند و بيانه : (١-٣) علاوة تحصيل رسوم الكارثة والموازن طبقا للائحة الشركة الوطنية
تنفيذ : شركة ايجي كونترك

الكمية	الابعاد (متر)		الموقع الكيلومري		بيان الاعمال بالمقايضة
	مساحة المقطع	طول	الى	من	
13219.63	6.610	2000	502+000	500+000	القطاع الأول
17549.60	8.125	2160	504+160	502+000	القطاع الثاني
30769.23	اجمالي الكميات خلال فترة المستخلص الحالية (م ³)				
30769.23	الاجمالي الكلي (م ³)				

مهندس الهيئة
م / إبراهيم الحناوي

مهندسى الاستشاري
م / مصطفى نجم

مهندس الاستشاري
م / محمد خليل

مهندس الشركة
م / محمود عمر

المنطقة الخامسة - (غرب الدلتا)

السيد المهندس / رئيس قطاع التنفيذ والمناطق

تحية طيبة.. وبعد،،

بالإحالة إلى مشروع القطار الكهربائى فائق السرعة (العلمين - فوكه) (القطاع السادس)
نتشرف بأن نرفق لسيادتكم طيه المقاييس المعدلة بعد المفاوضة تاريخ 2023-12-18
للقطاع الآتى:

مسلسل	اسم الشركة	بداية القطاع (كم)	نهاية القطاع (كم)	الاتجاه
1	ايجي كونتراك	500,000	504,160	سيدي حنيش

برجاء من سيادتكم التفضل بالأحاطه والتوجيه بالازم

وتفضلوا بقبول فائق الاحترام والتقدير،،

رئيس الإدارة المركزية

المنطقة الخامسة - غرب الدلتا

عميد مهندس /

"هاني محمد محمود طه"

مشروع القطار الكهربائي السريع

المقايسة المعدلة لبنود الاعمال طبقا للمفاوضة بتاريخ (2023-12-18) للقطاع السادس (العلمين- فوكه) - شركة ايجي كونتراتك - اتجاه سيدي حنيش
القطاع من المحطة 500+000 إلى المحطة 504+160 بطول 4.16 كم مرحلة تشكيل الجسور وطبقات التأسيس وخرسانات الميول

رقم البند	بيان الأعمال	الوحدة	الكمية	الفئة	الإجمالي
3	اعمال الردم				
3-1	بالمتر المكعب اعمال تحميل وتوريد ونقل اترية مطابقة للمواصفات وتشغيلها باستخدام الات التسوية بسمك لا يزيد عن 50 سم حتى منسوب -2 متر و بسمك لا يزيد عن 25 سم لاستكمال المنسوب التصميمي لتشكيل الجسر والاكتاف (نسبة تحمل كاليفورنيا لا تقل عن 15%) و رشها بالمياه الاصولية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى اقصى كثافة جافة (95 % من الكثافة الجافة القصوى) ويتم التنفيذ طبقا للمناسيب التصميمية والقطاعات العرضية النموذجية والرسومات التفصيلية المعتمدة والبند بجميع مشتملاته طبقا لاصول الصناعة ومواصفات الهيئة العامة للطرق والكباري وتعليمات المهندس المشرف. - مسافة النقل حتى 2 كم ويتم احتساب علاوة 1.5 جنيه لكل 1 كم بالزيادة او النقصان . - السعر يشمل عمل تشوينات وتخليط واختبارات ونقل لموقع العمل . -السعر يشمل قيمة المادة المحجرة طبقا لافادة المنطقة بهذا القطاع (6) من الكم 395 الي الكم 504	م3	30,769.23	90.00	2,769,231
	علاوة مسافة النقل 215 كم	م3	30,769.23	319.50	9,830,769
	علاوة تحصيل رسوم الكارثة والموازن طبقا للائحة الشركة الوطنية	م3	30,769.23	13.00	400,000
	الإجمالي				13,000,000

(ثلاثة عشر مليون جنيه فقط لا غير)

مدير عام المشروعات
م / محمد حسني فياض

مدير المشروع المالك
م / ابراهيم العنلاوى

مدير المشروع الاستشاري
م / مصطفى نجم

مدير المشروع المقاول
م / محمود عمر

يعتمد
رئيس الادارة المركزية
منطقة غرب الدلتا

الاسكندرية - مرسى مطروح

عميد مهندس /

" هانى محمد محمود طه "

