



Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
041304B(4)



معدل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Test Report

|                |     |                |           |
|----------------|-----|----------------|-----------|
| Test Request # | 116 | Specimen(s) ID | 11-24/516 |
|----------------|-----|----------------|-----------|

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017

|                                                                                                                                                                                                                                                          |                                |                  |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|------------|
| Date of request                                                                                                                                                                                                                                          | 13/11/2024                     | Number of pages  | 2          |
| Test(s) Required                                                                                                                                                                                                                                         | Tensile+ Chemical              |                  |            |
| Test method (Mechanical)                                                                                                                                                                                                                                 | Tension (ASTM E8/16)           |                  |            |
| Test method (Chemical)                                                                                                                                                                                                                                   | Low alloy steel (ASTM E415/17) |                  |            |
| Test item description                                                                                                                                                                                                                                    | PL 6 mm                        |                  |            |
| Owner                                                                                                                                                                                                                                                    | الهيئة العامة للطرق والكباري   |                  |            |
| Contractor                                                                                                                                                                                                                                               | شركة الصفا للمقاولات           |                  |            |
| Steel Contractor                                                                                                                                                                                                                                         | شركة الفاروق صبرو وعلى         |                  |            |
| Project name                                                                                                                                                                                                                                             | مشروع مظلات موقف بني سويف      |                  |            |
| Date of Performing Test                                                                                                                                                                                                                                  | 20/11/2024                     | Test Report Date | 20/11/2024 |
| Temperature, °C                                                                                                                                                                                                                                          | 23                             | Humidity, %      | 37         |
| <ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul> |                                |                  |            |

**1-Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.  
Serial No: 124105000018

| Test Specimen                | 11-24/516 | Required for S355JR |
|------------------------------|-----------|---------------------|
| Yield stress, Mpa            | 388       | 345 min.            |
| Ultimate Tensile stress, Mpa | 492       | 470-630             |
| Elongation, %                | 28        | 22 min.             |

### Test conducted by:

### Signature:

- The test results represent a sample provided – by the customer – to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other part.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due

| Technical Advisor | Lab Manager / Lab. Supervisor |
|-------------------|-------------------------------|
| Signature:        | Prof. Dr. Mahmoud Tash        |
|                   | Signature:                    |

Tel -Fax/Mobile: 0235678005 - 01277721545 - 01277721525

Email: - [matlab@eng.cu.edu.eg](mailto:matlab@eng.cu.edu.eg)

Building 32-Faculty of Engineering-Cairo University-El Gamaa St.-Giza.

Issue No/Rev No: 1/2

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قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## 2-Chemical Test:

Test Equipment: ARL 3460 Spectrometer Arc/Spark OES.

Serial No:4545-AD

| ID(s)/Avg.<br>of 2 Runs<br>of each ID | Elements analyzed, % |             |             |              |              |       |       |             |       |       |       |       |       |       |
|---------------------------------------|----------------------|-------------|-------------|--------------|--------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|
|                                       | C                    | Mn          | Si          | P            | S            | Ni    | Cr    | Cu          | Mo    | V     | Ti    | Al    | B     | Nb    |
| 11-24/516                             | 0.207                | 1.287       | 0.300       | 0.032        | 0.015        | 0.008 | 0.018 | 0.010       | 0.002 | 0.005 | 0.013 | 0.037 | 0.000 | 0.000 |
| Required<br>for grade<br>S355JR       | 0.27<br>max          | 1.70<br>max | 0.60<br>max | 0.045<br>max | 0.045<br>max | ----- | ----- | 0.60<br>max | ----- | ----- | ----- | ----- | ----- | ----- |

Note: According to footnote (f) in EN10025-2, the max. Value for nitrogen does not apply if the

Test conducted by:

Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other party.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due to the depletion of the sample(s) during test.

| Technical Advisor | Lab. Manager / Lab. Supervisor       |
|-------------------|--------------------------------------|
| Signature:        | Prof. Dr. Mahmoud Tash<br>Signature: |





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قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Conformity Report

|                                                               |           |
|---------------------------------------------------------------|-----------|
| This report based on the results presented in Test Request #: | 166       |
| Specimen(s) ID                                                | 11-24/516 |

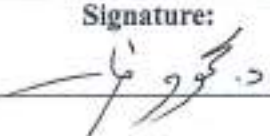
### Final Evaluation:

#### According to compliance with EN10025-2:2019

- 1- The specimen tensile properties are in conformity with grade S355JR according to EN10025-2:2019
- 2- The specimen chemical analysis is in conformity with grade S355JR according to EN10025-2:2019

Report prepared by: Eng/Eman Shamaa

Reviewed by:

|                                                                                     |                                                                                      |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Technical Advisor                                                                   | Lab. Manager / Lab. Supervisor                                                       |
| Signature:                                                                          | Prof. Dr. Mahmoud Tash                                                               |
|  |  |



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كلية الهندسة - جامعة القاهرة

## Test Report

|                |     |                |           |
|----------------|-----|----------------|-----------|
| Test Request # | 116 | Specimen(s) ID | 11-24/517 |
|----------------|-----|----------------|-----------|

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017

|                                                                                                                                                                                                                                                          |                                |                  |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|------------|
| Date of request                                                                                                                                                                                                                                          | 13/11/2024                     | Number of pages  | 2          |
| Test(s) Required                                                                                                                                                                                                                                         | Tensile+ Chemical              |                  |            |
| Test method (Mechanical)                                                                                                                                                                                                                                 | Tension (ASTM E8/16)           |                  |            |
| Test method (Chemical)                                                                                                                                                                                                                                   | Low alloy steel (ASTM E415/17) |                  |            |
| Test item description                                                                                                                                                                                                                                    | PL 10 mm                       |                  |            |
| Owner                                                                                                                                                                                                                                                    | البيئة العامة للطرق والكباري   |                  |            |
| Contractor                                                                                                                                                                                                                                               | شركة الصفا للمقارلات           |                  |            |
| Steel Contractor                                                                                                                                                                                                                                         | شركة الفاروق صمرو وعلي         |                  |            |
| Project name                                                                                                                                                                                                                                             | مشروع مظلات موقف بني سويف      |                  |            |
| Date of Performing Test                                                                                                                                                                                                                                  | 20/11/2024                     | Test Report Date | 20/11/2024 |
| Temperature, °C                                                                                                                                                                                                                                          | 23                             | Humidity, %      | 37         |
| <ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul> |                                |                  |            |

**1-Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.  
Serial No: 124105000018

| Test Specimen                | 11-24/517 | Required for S355JR |
|------------------------------|-----------|---------------------|
| Yield stress, Mpa            | 405       | 345 min.            |
| Ultimate Tensile stress, Mpa | 510       | 470-630             |
| Elongation, %                | 29        | 22 min.             |

Test conducted by:

Signature:

- The test results represent a sample provided – by the customer – to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
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| Technical Advisor | Lab. Manager / Lab. Supervisor |
|-------------------|--------------------------------|
| Signature:        | Prof. Dr. Mahmoud Tash         |
|                   |                                |

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Page 1 of 2

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MTL-F-7.8.1

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Issue No/Rev No: 1/2





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كلية الهندسة - جامعة القاهرة

## 2-Chemical Test:

Test Equipment: ARL 3460 Spectrometer Arc/Spark OES.

Serial No:4545-AD

| ID(s)/Avg.<br>of 2 Runs<br>of each ID | Elements analyzed, % |             |             |              |              |       |       |             |       |       |       |       |       |       |
|---------------------------------------|----------------------|-------------|-------------|--------------|--------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|
|                                       | C                    | Mn          | Si          | P            | S            | Ni    | Cr    | Cu          | Mo    | V     | Ti    | Al    | B     | Nb    |
| 11-24/517                             | 0.165                | 1.221       | 0.210       | 0.014        | 0.001        | 0.297 | 0.024 | 0.188       | 0.120 | 0.008 | 0.014 | 0.037 | 0.000 | 0.001 |
| Required<br>for grade<br>S355JR       | 0.27<br>max          | 1.70<br>max | 0.60<br>max | 0.045<br>max | 0.045<br>max | ----- | ----- | 0.60<br>max | ----- | ----- | ----- | ----- | ----- | ----- |

Note: According to footnote (f) in EN10025-2, the max. Value for nitrogen does not apply if the

Test conducted by:

Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
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|                   |                                |
|-------------------|--------------------------------|
| Technical Advisor | Lab. Manager / Lab. Supervisor |
| Signature:        | Prof. Dr. Mahmoud Tash         |
|                   | Signature:                     |

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كلية الهندسة - جامعة القاهرة

## Conformity Report

|                                                               |           |
|---------------------------------------------------------------|-----------|
| This report based on the results presented in Test Request #: | 166       |
| Specimen(s) ID                                                | 11-24/517 |

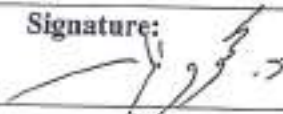
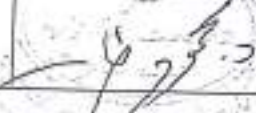
### Final Evaluation:

#### According to compliance with EN10025-2:2019

- 1- The specimen tensile properties are in conformity with grade S355JR according to EN10025-2:2019
- 2- The specimen chemical analysis is in conformity with grade S355JR according to EN10025-2:2019

Report prepared by: Eng/Eman Shamaa

Reviewed by:

| Technical Advisor                                                                              | Lab. Manager / Lab. Supervisor                                                                                            |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Signature:  | Prof. Dr. Mahmoud Tash<br>Signature:  |

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## Test Report

|                |     |                |           |
|----------------|-----|----------------|-----------|
| Test Request # | 116 | Specimen(s) ID | 11-24/518 |
|----------------|-----|----------------|-----------|

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017

|                                                                                                                                                                                                                                                          |                                |                  |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|------------|
| Date of request                                                                                                                                                                                                                                          | 13/11/2024                     | Number of pages  | 2          |
| Test(s) Required                                                                                                                                                                                                                                         | Tensile+ Chemical              |                  |            |
| Test method (Mechanical)                                                                                                                                                                                                                                 | Tension (ASTM E8/16)           |                  |            |
| Test method (Chemical)                                                                                                                                                                                                                                   | Low alloy steel (ASTM E415/17) |                  |            |
| Test item description                                                                                                                                                                                                                                    | PL 12 mm                       |                  |            |
| Owner                                                                                                                                                                                                                                                    | الهيئة العامة للطرق والكباري   |                  |            |
| Contractor                                                                                                                                                                                                                                               | شركة الصفا للمقاولات           |                  |            |
| Steel Contractor                                                                                                                                                                                                                                         | شركة الفاروق صمرو وعلي         |                  |            |
| Project name                                                                                                                                                                                                                                             | مشروع مقلات موقف باني سريف     |                  |            |
| Date of Performing Test                                                                                                                                                                                                                                  | 20/11/2024                     | Test Report Date | 20/11/2024 |
| Temperature, °C                                                                                                                                                                                                                                          | 23                             | Humidity, %      | 37         |
| <ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul> |                                |                  |            |

**1-Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.  
Serial No: 124105000018

| Test Specimen                | 11-24/518 | Required for S355JR |
|------------------------------|-----------|---------------------|
| Yield stress, Mpa            | 397       | 345 min.            |
| Ultimate Tensile stress, Mpa | 501       | 470-630             |
| Elongation, %                | 30        | 22 min.             |

### Test conducted by:

### Signature:

- The test results represent a sample provided – by the customer – to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
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|                   |                                |
|-------------------|--------------------------------|
| Technical Advisor | Lab. Manager / Lab. Supervisor |
| Signature:        | Prof. Dr. Mahmoud Tash         |
|                   | Signature:                     |

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قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## 2-Chemical Test:

Test Equipment: ARL 3460 Spectrometer Arc/Spark OES.

Serial No:4545-AD

| ID(s)/Avg.<br>of 2 Runs<br>of each ID | Elements analyzed, % |             |             |              |              |       |       |             |       |       |       |       |       |       |
|---------------------------------------|----------------------|-------------|-------------|--------------|--------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|
|                                       | C                    | Mn          | Si          | P            | S            | Ni    | Cr    | Cu          | Mo    | V     | Ti    | Al    | B     | Nb    |
| 11-24/518                             | 0.175                | 1.195       | 0.237       | 0.012        | 0.003        | 0.274 | 0.027 | 0.175       | 0.014 | 0.005 | 0.016 | 0.030 | 0.000 | 0.001 |
| Required<br>for grade<br>S355JR       | 0.27<br>max          | 1.70<br>max | 0.60<br>max | 0.045<br>max | 0.045<br>max | ----- | ----- | 0.60<br>max | ----- | ----- | ----- | ----- | ----- | ----- |

Note: According to footnote (f) in EN10025-2, the max. Value for nitrogen does not apply if the

Test conducted by:

Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other party.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due to the depletion of the sample(s) during test.

| Technical Advisor | Lab. Manager / Lab. Supervisor |
|-------------------|--------------------------------|
| Signature:        | Prof. Dr. Mahmoud Tash         |
|                   | Signature:                     |

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## Conformity Report

|                                                               |           |
|---------------------------------------------------------------|-----------|
| This report based on the results presented in Test Request #: | 166       |
| Specimen(s) ID                                                | 11-24/518 |

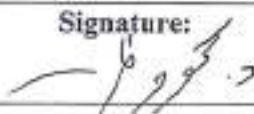
### Final Evaluation:

#### According to compliance with EN10025-2:2019

- 1- The specimen tensile properties are in conformity with grade S355JR according to EN10025-2:2019
- 2- The specimen chemical analysis is in conformity with grade S355JR according to EN10025-2:2019

Report prepared by: Eng/Eman Shamaa

Reviewed by:

|                                                                                     |                                                                                                 |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Technical Advisor                                                                   | Lab. Manager / Lab. Supervisor                                                                  |
| Signature:                                                                          | Prof. Dr. Mahmoud Tash                                                                          |
|  | Signature:  |



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## Test Report

|                |     |                |           |
|----------------|-----|----------------|-----------|
| Test Request # | 116 | Specimen(s) ID | 11-24/519 |
|----------------|-----|----------------|-----------|

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017

|                                                                                                                                                                                                                                                          |                                |                  |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|------------|
| Date of request                                                                                                                                                                                                                                          | 13/11/2024                     | Number of pages  | 2          |
| Test(s) Required                                                                                                                                                                                                                                         | Tensile+ Chemical              |                  |            |
| Test method (Mechanical)                                                                                                                                                                                                                                 | Tension (ASTM E8/16)           |                  |            |
| Test method (Chemical)                                                                                                                                                                                                                                   | Low alloy steel (ASTM E415/17) |                  |            |
| Test item description                                                                                                                                                                                                                                    | PL 20 mm                       |                  |            |
| Owner                                                                                                                                                                                                                                                    | الهيئة العامة للطرق والكباري   |                  |            |
| Contractor                                                                                                                                                                                                                                               | شركة الصفا للمقارلات           |                  |            |
| Steel Contractor                                                                                                                                                                                                                                         | شركة الفاروق عمرو وعلي         |                  |            |
| Project name                                                                                                                                                                                                                                             | مشروع مظلات موقف بني سويف      |                  |            |
| Date of Performing Test                                                                                                                                                                                                                                  | 20/11/2024                     | Test Report Date | 20/11/2024 |
| Temperature, °C                                                                                                                                                                                                                                          | 23                             | Humidity, %      | 37         |
| <ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul> |                                |                  |            |

**1-Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.

Serial No: 124105000018

| Test Specimen                | 11-24/519 | Required for S355JR |
|------------------------------|-----------|---------------------|
| Yield stress, Mpa            | 408       | 345 min.            |
| Ultimate Tensile stress, Mpa | 533       | 470-630             |
| Elongation, %                | 27        | 22 min.             |

**Test conducted by:**

**Signature:**

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other part.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due

| Technical Advisor | Lab Manager / Lab. Supervisor        |
|-------------------|--------------------------------------|
| Signature:        | Prof. Dr. Mahmoud Tash<br>Signature: |

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كلية الهندسة - جامعة القاهرة

## 2-Chemical Test:

Test Equipment: ARL 3460 Spectrometer Arc/Spark OES.

Serial No:4545-AD

| ID(s)/Avg.<br>of 2 Runs<br>of each ID | Elements analyzed, % |             |             |              |              |       |       |             |       |       |       |       |       |       |
|---------------------------------------|----------------------|-------------|-------------|--------------|--------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|
|                                       | C                    | Mn          | Si          | P            | S            | Ni    | Cr    | Cu          | Mo    | V     | Ti    | Al    | B     | Nb    |
| 11-24/519                             | 0.131                | 1.017       | 0.294       | 0.084        | 0.006        | 0.174 | 0.195 | 0.139       | 0.002 | 0.004 | 0.012 | 0.034 | 0.000 | 0.001 |
| Required<br>for grade<br>S355JR       | 0.27<br>max          | 1.70<br>max | 0.60<br>max | 0.045<br>max | 0.045<br>max | ----- | ----- | 0.60<br>max | ----- | ----- | ----- | ----- | ----- | ----- |

Note: According to footnote (f) in EN10025-2, the max. Value for nitrogen does not apply if the

Test conducted by:

Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other party.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due to the depletion of the sample(s) during test.

| Technical Advisor | Lab. Manager / Lab. Supervisor       |
|-------------------|--------------------------------------|
| Signature:        | Prof. Dr. Mahmoud Tash<br>Signature: |

Tel -Fax/Mobile: 0235678005 - 01277721545 - 01277721525

Email: - [matlab@eng.cu.edu.eg](mailto:matlab@eng.cu.edu.eg)

Building 32-Faculty of Engineering-Cairo University-El Gamaa St.-Giza.

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معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Conformity Report

|                                                               |           |
|---------------------------------------------------------------|-----------|
| This report based on the results presented in Test Request #: | 166       |
| Specimen(s) ID                                                | 11-24/519 |

### Final Evaluation:

#### According to compliance with EN10025-2:2019

- 1- The specimen tensile properties are in conformity with grade S355JR according to EN10025-2:2019
- 2- The specimen chemical analysis is in conformity with grade S355JR according to EN10025-2:2019

Report prepared by: Eng/Eman Shamaa

Reviewed by:

|                   |                                |
|-------------------|--------------------------------|
| Technical Advisor | Lab. Manager / Lab. Supervisor |
| Signature:        | Prof. Dr. Mahmoud Tash         |
|                   | Signature:                     |





Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
041304B(4)



معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Test Report

|                |     |                |           |
|----------------|-----|----------------|-----------|
| Test Request # | 116 | Specimen(s) ID | 11-24/520 |
|----------------|-----|----------------|-----------|

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017

|                                                                                                                                                                                                                                                          |                                |                  |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|------------|
| Date of request                                                                                                                                                                                                                                          | 13/11/2024                     | Number of pages  | 2          |
| Test(s) Required                                                                                                                                                                                                                                         | Tensile+ Chemical              |                  |            |
| Test method (Mechanical)                                                                                                                                                                                                                                 | Tension (ASTM E8/16)           |                  |            |
| Test method (Chemical)                                                                                                                                                                                                                                   | Low alloy steel (ASTM E415/17) |                  |            |
| Test item description                                                                                                                                                                                                                                    | PL 25 mm                       |                  |            |
| Owner                                                                                                                                                                                                                                                    | الهيئة العامة للطرق والكباري   |                  |            |
| Contractor                                                                                                                                                                                                                                               | شركة الصفا للمقاولات           |                  |            |
| Steel Contractor                                                                                                                                                                                                                                         | شركة الفاروق عمرو وعلي         |                  |            |
| Project name                                                                                                                                                                                                                                             | مشروع مظلات موقف بني سويف      |                  |            |
| Date of Performing Test                                                                                                                                                                                                                                  | 20/11/2024                     | Test Report Date | 20/11/2024 |
| Temperature, °C                                                                                                                                                                                                                                          | 23                             | Humidity, %      | 37         |
| <ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul> |                                |                  |            |

**1-Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.

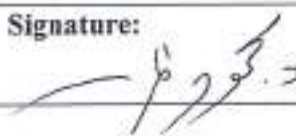
Serial No: 124105000018

| Test Specimen                | 11-24/520 | Required for S355JR |
|------------------------------|-----------|---------------------|
| Yield stress, Mpa            | 417       | 345 min.            |
| Ultimate Tensile stress, Mpa | 561       | 470-630             |
| Elongation, %                | 30        | 22 min.             |

**Test conducted by:**

**Signature:**

- The test results represent a sample provided - by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other part.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due

| Technical Advisor                                                                              | Lab. Manager / Lab. Supervisor                                                                                            |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Signature:  | Prof. Dr. Mahmoud Tash<br>Signature:  |

Tel -Fax/Mobile: 0235678005 - 01277721545 - 01277721525

Email: - [mtltestlab@eng.cu.edu.eg](mailto:mtltestlab@eng.cu.edu.eg)

Building 32-Faculty of Engineering-Cairo University-El Gamaa St.-Giza.

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041304B(4)



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قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## 2-Chemical Test:

Test Equipment: ARL 3460 Spectrometer Arc/Spark OES.

Serial No:4545-AD

| ID(s)/Avg.<br>of 2 Runs<br>of each ID | Elements analyzed, % |             |             |              |              |       |       |             |       |       |       |       |       |       |
|---------------------------------------|----------------------|-------------|-------------|--------------|--------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|
|                                       | C                    | Mn          | Si          | P            | S            | Ni    | Cr    | Cu          | Mo    | V     | Ti    | Al    | B     | Nb    |
| 11-24/520                             | 0.160                | 1.298       | 0.209       | 0.020        | 0.010        | 0.009 | 0.017 | 0.010       | 0.002 | 0.005 | 0.013 | 0.037 | 0.000 | 0.001 |
| Required<br>for grade<br>S355JR       | 0.27<br>max          | 1.70<br>max | 0.60<br>max | 0.045<br>max | 0.045<br>max | ----- | ----- | 0.60<br>max | ----- | ----- | ----- | ----- | ----- | ----- |

Note: According to footnote (f) in EN10025-2, the max. Value for nitrogen does not apply if the

Test conducted by:

Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other party.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due to the depletion of the sample(s) during test.

| Technical Advisor | Lab. Manager / Lab. Supervisor |
|-------------------|--------------------------------|
|                   | Prof. Dr. Mahmoud Tash         |
| Signature:        | Signature:                     |





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CAB #  
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معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Conformity Report

|                                                               |           |
|---------------------------------------------------------------|-----------|
| This report based on the results presented in Test Request #: | 166       |
| Specimen(s) ID                                                | 11-24/520 |

### Final Evaluation:

#### According to compliance with EN10025-2:2019

- 1- The specimen tensile properties **are in** conformity with grade S355JR according to EN10025-2:2019
- 2- The specimen chemical analysis **is in** conformity with grade S355JR according to EN10025-2:2019

**Report prepared by:** Eng/Eman Shamaa

**Reviewed by:**

| Technical Advisor | Lab. Manager / Lab. Supervisor |
|-------------------|--------------------------------|
|                   | Prof. Dr. Mahmoud Tash         |
| Signature:        | Signature:                     |



Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
041304B(4)



محل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Test Report

|                |     |                |           |
|----------------|-----|----------------|-----------|
| Test Request # | 116 | Specimen(s) ID | 11-24/521 |
|----------------|-----|----------------|-----------|

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017

|                                                                                                                                                                                                                                                          |                                |                  |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|------------|
| Date of request                                                                                                                                                                                                                                          | 13/11/2024                     | Number of pages  | 2          |
| Test(s) Required                                                                                                                                                                                                                                         | Tensile+ Chemical              |                  |            |
| Test method (Mechanical)                                                                                                                                                                                                                                 | Tension (ASTM E8/16)           |                  |            |
| Test method (Chemical)                                                                                                                                                                                                                                   | Low alloy steel (ASTM E415/17) |                  |            |
| Test item description                                                                                                                                                                                                                                    | IPE 300                        |                  |            |
| Owner                                                                                                                                                                                                                                                    | الهيئة العامة للطرق والكباري   |                  |            |
| Contractor                                                                                                                                                                                                                                               | شركة الصفا للمقاولات           |                  |            |
| Steel Contractor                                                                                                                                                                                                                                         | شركة الفاروق عمرو وعلي         |                  |            |
| Project name                                                                                                                                                                                                                                             | مشروع مظلات موقف بني سويف      |                  |            |
| Date of Performing Test                                                                                                                                                                                                                                  | 20/11/2024                     | Test Report Date | 20/11/2024 |
| Temperature, °C                                                                                                                                                                                                                                          | 23                             | Humidity, %      | 37         |
| <ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul> |                                |                  |            |

**1-Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.

Serial No: 124105000018

| Test Specimen                | 11-24/521 | Required for S275JR |
|------------------------------|-----------|---------------------|
| Yield stress, Mpa            | 347       | 265 min.            |
| Ultimate Tensile stress, Mpa | 481       | 410-560             |
| Elongation, %                | 28        | 23 min.             |

### Test conducted by:

### Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
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- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due

| Technical Advisor | Lab. Manager / Lab. Supervisor |
|-------------------|--------------------------------|
|                   | Prof. Dr. Mahmoud Tash         |
| Signature:        | Signature:                     |

Tel -Fax/Mobile: 0235678005 - 01277721545 - 01277721525

Email: - [matestlab@eng.cu.edu.eg](mailto:matestlab@eng.cu.edu.eg)

Building 32-Faculty of Engineering-Cairo University-El Gamaa St.-Giza.

Issue No/Rev No: 1/2

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معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## 2-Chemical Test:

Test Equipment: ARL 3460 Spectrometer Arc/Spark OES.

Serial No:4545-AD

| ID(s)/Avg.<br>of 2 Runs<br>of each ID | Elements analyzed, % |             |       |              |              |       |       |             |       |       |       |       |       |       |
|---------------------------------------|----------------------|-------------|-------|--------------|--------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|
|                                       | C                    | Mn          | Si    | P            | S            | Ni    | Cr    | Cu          | Mo    | V     | Ti    | Al    | B     | Nb    |
| 11-24/521                             | 0.181                | 1.126       | 0.061 | 0.015        | 0.002        | 0.041 | 0.035 | 0.026       | 0.005 | 0.005 | 0.025 | 0.038 | 0.000 | 0.000 |
| Required<br>for grade<br>S275JR       | 0.24<br>max          | 1.60<br>max | ..... | 0.045<br>max | 0.045<br>max | ----  | ----  | 0.60<br>max | ----  | ----  | ----  | ----  | ----  | ----  |

Note: According to footnote (f) in EN10025-2, the max. Value for nitrogen does not apply if the

Test conducted by:

Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other party.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due to the depletion of the sample(s) during test.

| Technical Advisor | Lab. Manager / Lab. Supervisor |
|-------------------|--------------------------------|
|                   | Prof. Dr. Mahmoud Tash         |
| Signature:        | Signature:                     |



Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
041304B(4)



معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Conformity Report

|                                                               |           |
|---------------------------------------------------------------|-----------|
| This report based on the results presented in Test Request #: | 166       |
| Specimen(s) ID                                                | 11-24/521 |

### Final Evaluation:

#### According to compliance with EN10025-2:2019

- 1- The specimen tensile properties are in conformity with grade S275JR according to EN10025-2:2019
- 2- The specimen chemical analysis is in conformity with grade S275JR according to EN10025-2:2019

Report prepared by: Eng/Eman Shamaa

Reviewed by:

|                   |                                |
|-------------------|--------------------------------|
| Technical Advisor | Lab. Manager / Lab. Supervisor |
| Signature:        | Prof. Dr. Mahmoud Tash         |
|                   | Signature:                     |





Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
041304B(4)



معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Test Report

|                |     |                |           |
|----------------|-----|----------------|-----------|
| Test Request # | 116 | Specimen(s) ID | 11-24/522 |
|----------------|-----|----------------|-----------|

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017

|                                                                                                                                                                                                                                                          |                                |                  |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|------------|
| Date of request                                                                                                                                                                                                                                          | 13/11/2024                     | Number of pages  | 2          |
| Test(s) Required                                                                                                                                                                                                                                         | Tensile+ Chemical              |                  |            |
| Test method (Mechanical)                                                                                                                                                                                                                                 | Tension (ASTM E8/16)           |                  |            |
| Test method (Chemical)                                                                                                                                                                                                                                   | Low alloy steel (ASTM E415/17) |                  |            |
| Test item description                                                                                                                                                                                                                                    | IPE 360                        |                  |            |
| Owner                                                                                                                                                                                                                                                    | الهيئة العامة للطرق والكباري   |                  |            |
| Contractor                                                                                                                                                                                                                                               | شركة الصفا للمقاولات           |                  |            |
| Steel Contractor                                                                                                                                                                                                                                         | شركة الفاروق عمرو وعلي         |                  |            |
| Project name                                                                                                                                                                                                                                             | مشروع مطاتل موقت بني مريق      |                  |            |
| Date of Performing Test                                                                                                                                                                                                                                  | 20/11/2024                     | Test Report Date | 20/11/2024 |
| Temperature, °C                                                                                                                                                                                                                                          | 23                             | Humidity, %      | 37         |
| <ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul> |                                |                  |            |

**1-Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.

Serial No: 124105000018

| Test Specimen                | 11-24/522 | Required for S275JR |
|------------------------------|-----------|---------------------|
| Yield stress, Mpa            | 341       | 265 min.            |
| Ultimate Tensile stress, Mpa | 455       | 410-560             |
| Elongation, %                | 32        | 23 min.             |

Test conducted by:

Signature:

- The test results represent a sample provided - by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other part.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due

|                   |                                |
|-------------------|--------------------------------|
| Technical Advisor | Lab. Manager / Lab. Supervisor |
| Signature:        | Prof. Dr. Mahmoud Tash         |
|                   | Signature:                     |

Tel -Fax/Mobile: 0235678005 - 01277721545 - 01277721525

Email: - [matestlab@eng.cu.edu.eg](mailto:matestlab@eng.cu.edu.eg)

Building 32-Faculty of Engineering-Cairo University-El Gamaa St.-Giza.

Issue No/Rev No: 1/2

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Faculty of Engineering – Cairo University



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معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Conformity Report

|                                                               |           |
|---------------------------------------------------------------|-----------|
| This report based on the results presented in Test Request #: | 166       |
| Specimen(s) ID                                                | 11-24/522 |

### Final Evaluation:

#### According to compliance with EN10025-2:2019

- 1- The specimen tensile properties **are in** conformity with grade S275JR according to EN10025-2:2019
- 2- The specimen chemical analysis **is in** conformity with grade S275JR according to EN10025-2:2019

Report prepared by: Eng/Eman Shamaa

Reviewed by:

| Technical Advisor | Lab. Manager / Lab. Supervisor |
|-------------------|--------------------------------|
|                   | Prof. Dr. Mahmoud Tash         |
| Signature:        | Signature:                     |





Mechanical Testing Laboratory  
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CAB #  
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معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة – جامعة القاهرة

## 2-Chemical Test:

Test Equipment: ARL 3460 Spectrometer Arc/Spark OES.

Serial No:4545-AD

| ID(s)/Avg.<br>of 2 Runs<br>of each ID | Elements analyzed, % |             |       |              |              |       |       |             |       |       |       |       |       |       |
|---------------------------------------|----------------------|-------------|-------|--------------|--------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|
|                                       | C                    | Mn          | Si    | P            | S            | Ni    | Cr    | Cu          | Mo    | V     | Ti    | Al    | B     | Nb    |
| 11-24/522                             | 0.159                | 0.988       | 0.047 | 0.015        | 0.007        | 0.038 | 0.031 | 0.027       | 0.004 | 0.007 | 0.019 | 0.033 | 0.000 | 0.000 |
| Required<br>for grade<br>S275JR       | 0.24<br>max          | 1.60<br>max | ..... | 0.045<br>max | 0.045<br>max | ----  | ----  | 0.60<br>max | ----  | ----  | ----  | ----  | ----  | ----  |

Note: According to footnote (f) in EN10025-2, the max. Value for nitrogen does not apply if the

Test conducted by:

Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other party.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due to the depletion of the sample(s) during test.

| Technical Advisor | Lab. Manager / Lab. Supervisor |
|-------------------|--------------------------------|
|                   | Prof. Dr. Mahmoud Tash         |
| Signature:        | Signature:                     |



Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
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معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Test Report

|                |     |                |           |
|----------------|-----|----------------|-----------|
| Test Request # | 116 | Specimen(s) ID | 11-24/524 |
|----------------|-----|----------------|-----------|

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017

|                                                                                                                                                                                                                                                          |                                |                  |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|------------|
| Date of request                                                                                                                                                                                                                                          | 13/11/2024                     | Number of pages  | 2          |
| Test(s) Required                                                                                                                                                                                                                                         | Tensile+ Chemical              |                  |            |
| Test method (Mechanical)                                                                                                                                                                                                                                 | Tension (ASTM E8/16)           |                  |            |
| Test method (Chemical)                                                                                                                                                                                                                                   | Low alloy steel (ASTM E415/17) |                  |            |
| Test item description                                                                                                                                                                                                                                    | زاوية 80*80*8                  |                  |            |
| Owner                                                                                                                                                                                                                                                    | الهيئة العامة للطرق والكباري   |                  |            |
| Contractor                                                                                                                                                                                                                                               | شركة الصفا للمقاولات           |                  |            |
| Steel Contractor                                                                                                                                                                                                                                         | شركة الفاروق عمرو وعلي         |                  |            |
| Project name                                                                                                                                                                                                                                             | مشروع مظلات موقف بني سويف      |                  |            |
| Date of Performing Test                                                                                                                                                                                                                                  | 20/11/2024                     | Test Report Date | 20/11/2024 |
| Temperature, °C                                                                                                                                                                                                                                          | 23                             | Humidity, %      | 37         |
| <ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul> |                                |                  |            |

**1-Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.

Serial No: 124105000018

| Test Specimen                | 11-24/524 | Required for S275JR |
|------------------------------|-----------|---------------------|
| Yield stress, Mpa            | 326       | 265 min.            |
| Ultimate Tensile stress, Mpa | 467       | 410-560             |
| Elongation, %                | 28        | 23 min.             |

**Test conducted by:**

**Signature:**

- The test results represent a sample provided – by the customer – to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other part.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due

| Technical Advisor | Lab. Manager / Lab. Supervisor       |
|-------------------|--------------------------------------|
| Signature:        | Prof. Dr. Mahmoud Tash<br>Signature: |

Tel -Fax/Mobile: 0235678005 - 01277721545 - 01277721525

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Faculty of Engineering – Cairo University



Testing  
CAB #  
041304B(4)



مصل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## 2-Chemical Test:

Test Equipment: ARL 3460 Spectrometer Arc/Spark OES.

Serial No:4545-AD

| ID(s)/Avg.<br>of 2 Runs<br>of each ID | Elements analyzed, % |             |       |              |              |       |       |             |       |       |       |       |       |       |
|---------------------------------------|----------------------|-------------|-------|--------------|--------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|
|                                       | C                    | Mn          | Si    | P            | S            | Ni    | Cr    | Cu          | Mo    | V     | Ti    | Al    | B     | Nb    |
| 11-24/524                             | 0.121                | 0.826       | 0.051 | 0.015        | 0.002        | 0.041 | 0.035 | 0.026       | 0.007 | 0.003 | 0.017 | 0.038 | 0.000 | 0.000 |
| Required<br>for grade<br>S275JR       | 0.24<br>max          | 1.60<br>max | ..... | 0.045<br>max | 0.045<br>max | ----  | ----  | 0.60<br>max | ----  | ----  | ----  | ----  | ----  | ----  |

Note: According to footnote (f) in EN10025-2, the max. Value for nitrogen does not apply if the

Test conducted by:

Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other party.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due to the depletion of the sample(s) during test.

|                   |                                |
|-------------------|--------------------------------|
| Technical Advisor | Lab. Manager / Lab. Supervisor |
| Signature:        | Prof. Dr. Mahmoud Tash         |
|                   | Signature:                     |



Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
041304B(4)



محل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Conformity Report

|                                                               |           |
|---------------------------------------------------------------|-----------|
| This report based on the results presented in Test Request #: | 166       |
| Specimen(s) ID                                                | 11-24/524 |

### Final Evaluation:

#### According to compliance with EN10025-2:2019

- 1- The specimen tensile properties are in conformity with grade S275JR according to EN10025-2:2019
- 2- The specimen chemical analysis is in conformity with grade S275JR according to EN10025-2:2019

Report prepared by: Eng/Eman Shamaa

Reviewed by:

|                   |                                |
|-------------------|--------------------------------|
| Technical Advisor | Lab. Manager / Lab. Supervisor |
| Signature:        | Prof. Dr. Mahmoud Tash         |
|                   | Signature:                     |





Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
041304B(4)



معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## 2-Chemical Test:

Test Equipment: ARL 3460 Spectrometer Arc/Spark OES.

Serial No:4545-AD

| ID(s)/Avg.<br>of 2 Runs<br>of each ID | Elements analyzed, % |             |       |              |              |       |       |             |       |       |       |       |       |       |
|---------------------------------------|----------------------|-------------|-------|--------------|--------------|-------|-------|-------------|-------|-------|-------|-------|-------|-------|
|                                       | C                    | Mn          | Si    | P            | S            | Ni    | Cr    | Cu          | Mo    | V     | Ti    | Al    | B     | Nb    |
| 11-24/523                             | 0.166                | 1.067       | 0.265 | 0.017        | 0.010        | 0.019 | 0.013 | 0.025       | 0.011 | 0.010 | 0.006 | 0.020 | 0.000 | 0.000 |
| Required<br>for grade<br>S275JR       | 0.24<br>max          | 1.60<br>max | ..... | 0.045<br>max | 0.045<br>max | ..... | ..... | 0.60<br>max | ..... | ..... | ..... | ..... | ..... | ..... |

Note: According to footnote (f) in EN10025-2, the max. Value for nitrogen does not apply if the

Test conducted by:

Signature:

- The test results represent a sample provided – by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
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- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due to the depletion of the sample(s) during test.

|                   |                                |
|-------------------|--------------------------------|
| Technical Advisor | Lab. Manager / Lab. Supervisor |
|                   | Prof. Dr. Mahmoud Tash         |
| Signature:        | Signature:                     |

Tel -Fax/Mobile: 0235678005 - 01277721545 - 01277721525

Email: - [matestlab@eng.cu.edu.eg](mailto:matestlab@eng.cu.edu.eg)

Building 32-Faculty of Engineering-Cairo University-El Gamaa St.-Giza.

Issue No/Rev No: 1/2

Page 2 of 2

MTL-F-7.8.1



Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
041304B(4)



معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Conformity Report

|                                                               |           |
|---------------------------------------------------------------|-----------|
| This report based on the results presented in Test Request #: | 166       |
| Specimen(s) ID                                                | 11-24/S23 |

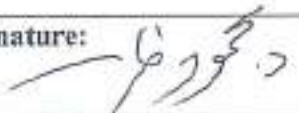
### Final Evaluation:

#### According to compliance with EN10025-2:2019

- 1- The specimen tensile properties **are in** conformity with grade S275JR according to EN10025-2:2019
- 2- The specimen chemical analysis **is in** conformity with grade S275JR according to EN10025-2:2019

Report prepared by: Eng/Eman Shamaa

Reviewed by:

| Technical Advisor                                                                              | Lab. Manager / Lab. Supervisor                                                                                            |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Signature:  | Prof. Dr. Mahmoud Tash<br>Signature:  |





Mechanical Testing Laboratory  
Metallurgical Dept. – Building No. 32  
Faculty of Engineering – Cairo University



Testing  
CAB #  
041304B(4)



معمل الاختبارات الميكانيكية  
قسم الفلزات - مبنى رقم 32  
كلية الهندسة - جامعة القاهرة

## Test Report

|                |     |                |           |
|----------------|-----|----------------|-----------|
| Test Request # | 116 | Specimen(s) ID | 11-24/523 |
|----------------|-----|----------------|-----------|

The MTL adopts the management systems that fulfills the requirements of the international standard ISO/IEC 17025:2017

|                                                                                                                                                                                                                                                          |                                |                  |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------|------------|
| Date of request                                                                                                                                                                                                                                          | 13/11/2024                     | Number of pages  | 2          |
| Test(s) Required                                                                                                                                                                                                                                         | Tensile+ Chemical              |                  |            |
| Test method (Mechanical)                                                                                                                                                                                                                                 | Tension (ASTM E8/16)           |                  |            |
| Test method (Chemical)                                                                                                                                                                                                                                   | Low alloy steel (ASTM E415/17) |                  |            |
| Test item description                                                                                                                                                                                                                                    | زاوية 100*100*10               |                  |            |
| Owner                                                                                                                                                                                                                                                    | الهيئة العامة للطرق والكباري   |                  |            |
| Contractor                                                                                                                                                                                                                                               | شركة الصفا للمقاولات           |                  |            |
| Steel Contractor                                                                                                                                                                                                                                         | شركة الفاروق صمرو وعلي         |                  |            |
| Project name                                                                                                                                                                                                                                             | مشروع مخطات موقف بني سويف      |                  |            |
| Date of Performing Test                                                                                                                                                                                                                                  | 20/11/2024                     | Test Report Date | 20/11/2024 |
| Temperature, °C                                                                                                                                                                                                                                          | 23                             | Humidity, %      | 37         |
| <ul style="list-style-type: none"> <li>Specimen details and conditions (shown above) are supplied by the customer; hence the lab bears no responsibility regarding these details.</li> <li>The Un-machined specimen was sent by the customer.</li> </ul> |                                |                  |            |

**1-Tensile Test:** Test Machine: SHIMADZU / UH-1000KNX Universal Testing Machine.

Serial No: 124105000018

| Test Specimen                | 11-24/523 | Required for S275JR |
|------------------------------|-----------|---------------------|
| Yield stress, Mpa            | 317       | 265 min.            |
| Ultimate Tensile stress, Mpa | 428       | 410-560             |
| Elongation, %                | 30        | 23 min.             |

### Test conducted by:

### Signature:

- The test results represent a sample provided - by the customer - to the Lab only and do not represent the quantities of production or any other quantities belongs to the customer.
- Reports issued by the Lab are confidential and belong to the requesting party alone and cannot be given to any other part.
- The lab responsibility of delivering the rest of sample(s) to the customer expires after 15 days after the test report issuance date or due

| Technical Advisor | Lab. Manager / Lab. Supervisor |
|-------------------|--------------------------------|
| Signature:        | Prof. Dr. Mahmoud Tash         |
|                   | Signature:                     |

Tel-Fax/Mobile: 0235678005 - 01277721545 - 01277721525

Email: - [matestlab@eng.cu.edu.eg](mailto:matestlab@eng.cu.edu.eg)

Building 32-Faculty of Engineering-Cairo University-El Gamaa St.-Giza.

Issue No/Rev No: 1/2

Page 1 of 2

MTL-F-7.8.1



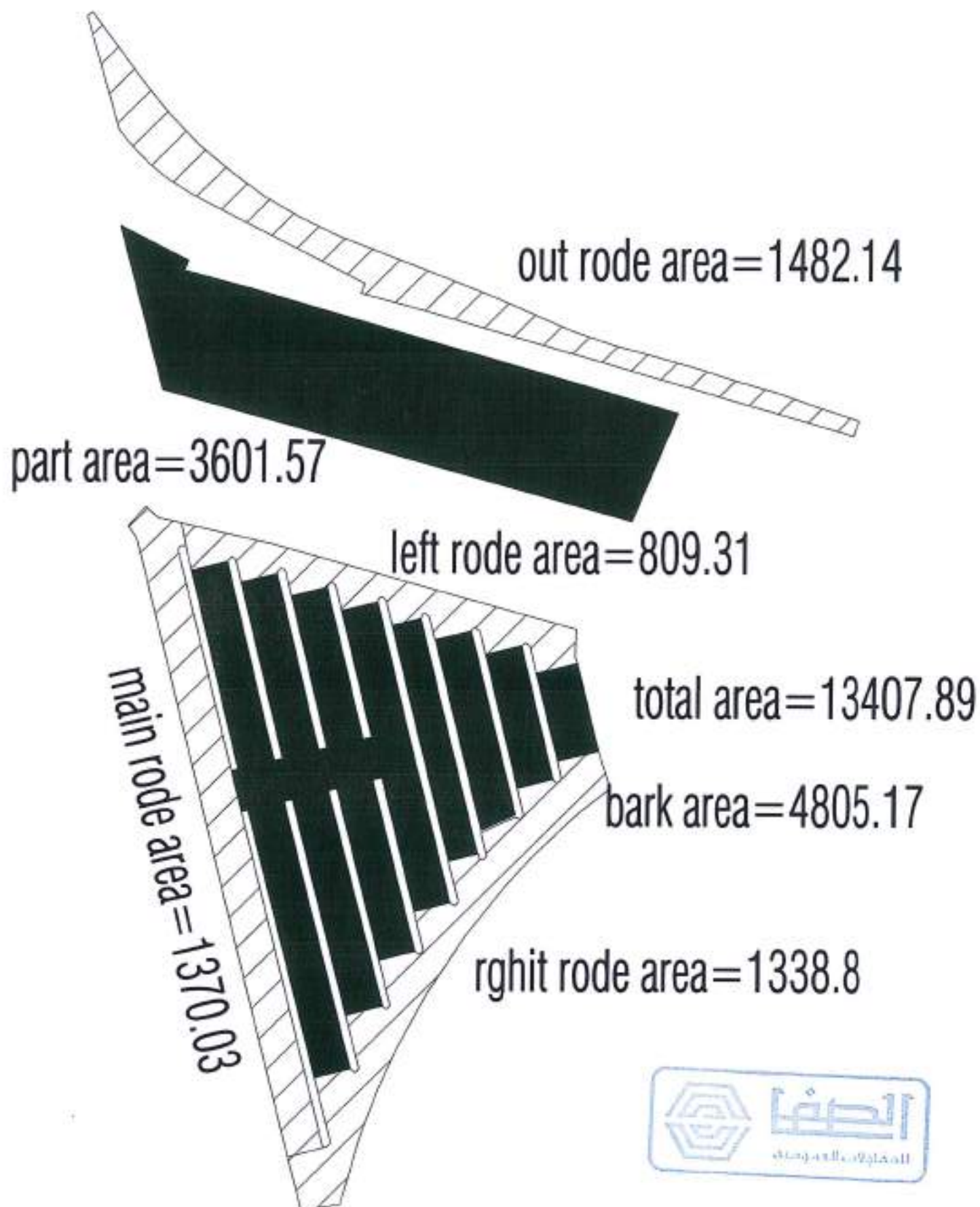
التوقيع / م. / مهندس  
بيت الخبرة للاستشارات د/عبدالمجيد منجد

التوقيع /   
 مهندس /   
 شركة الصفا للمقاولات العمومية

احمد علی، لکھنؤ







| رقم<br>البريد | بيان الاتصال                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | عدد الفلج | ملاحظات |           |                        | مساحة المبنى والارتفاع |       |       |  |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------|-----------|------------------------|------------------------|-------|-------|--|
|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | طول     | وزن بالكم | عدد في الجدار الخرساني | الارتفاع               | العرض |       |  |
| 9.1           | يتم توريد و تنفيذ الهياكل المعدنية لفلجات من الفلجات IPE , Z shapes and Star members المشددة على البرد او السلك من زوايا و حمرات طبقا لرسومات التصميمية و البدء بملئ التوريد و التفل و التوازن للفلجات المعدنية المشددة بالرسومات و التجميع و التوريد و طرقت الدفن الوافية من الصدا بما تشمل أيضا التركيب و التثبيت و التخليق و الوصلات لشدلة جوارب التثبيت و معدات التمدد و الوصلات بالخدمات و المسامير المشددة و أعمال التثبيت و تشطيب الفلجات المعدنية بالدهانات الخارجية المطلوبة للعامل الجوية بملئ المطلوب و هذا على اتصال معقولة و المتوفرة اللازمة مع تقديم رسومات التشغيل للاعتماد و الفلة تشمل توريد و تركيب فلجات الجواف اللازمة لتشكيل الحكومة المسورة وكن ما يتم لنهر الاتصال على الوجه الامثل حسب اصول الصناعة وطبقا للمواصفات و الرسومات التنفيذية المشددة وتعليمات المهندس المشرف بما جديده والتكامل و الجوانب |           |         |           |                        |                        |       |       |  |
|               | STRUTS 2*100*10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |         |           |                        |                        |       |       |  |
|               | AXE E RIGHT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.00      | 25.155  | 18.100    | 2.000                  |                        | 2.000 | 2.000 |  |
|               | AXE E LEFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3.00      | 25.155  | 18.100    | 2.000                  |                        | 2.000 | 2.000 |  |
|               | AXE F RIGHT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.00      | 25.155  | 18.100    | 2.000                  |                        | 2.000 | 2.000 |  |
|               | AXE F LEFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3.00      | 25.155  | 18.100    | 2.000                  |                        | 2.000 | 2.000 |  |
|               | AXE G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.00      | 25.155  | 18.100    | 2.000                  |                        | 2.000 | 2.000 |  |
|               | AXE H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.00      | 25.155  | 18.100    | 2.000                  |                        | 2.000 | 2.000 |  |
|               | AXE I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.00      | 25.155  | 18.100    | 2.000                  |                        | 2.000 | 2.000 |  |
|               | PURLINS 2155*60*20*2.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |         |           |                        |                        |       |       |  |
|               | AXE B RIGHT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE B LEFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE C RIGHT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE C LEFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE D RIGHT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE D LEFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE E RIGHT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE E LEFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE F RIGHT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE F LEFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | AXE I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.00      | 48.650  | 3.270     | 1.000                  |                        | 1.000 | 1.000 |  |
|               | L50*5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.000     | 2.000   | 0.000     | 1.000                  |                        | 1.000 | 1.000 |  |

الشركة المتفذة (شركة المنكا للمقاولات المعمارية)

المصنع (شركة الفاروق صبر و طي)

المستشار مراكمة المعمارية مكتب المجموعة الهندسية للجودة (QEG)

المكتب الاستشاري للمالك (مكتب بيت الخبرة)

المكتب الاستشاري للملك (مكتب بيت الخبرة)

المشاور من جهة العميل (مكتب المجموعة الهندسية للجودة) QEG

المصنع (شركة الفاروق صبر و طر)

الشركة المنفذة (شركة الصفا للمقاولات المعمورة)

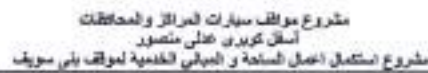
تاريخ ٢٠٢٤



رؤوف ز. محمد





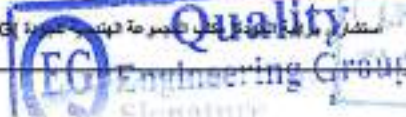


المكتب الاستشاري للملك (مكتب بيت الخيرة)

استشاري إدارة الجودة مكتب الجسرة الهندسية - جدة QEG

المصنّع (شركة الطاروق صغرو و علي)

التربية المتفردة (تربية الصيغ للطلاب الصغرى)





[illegible]

المكتب الاستشاري للملك (مكتب بيت الخبرة)

استشارى مراقبة الجودة (مكتب المجموعة الهندسية للجودة) QEO

المصانع (شركة الطراوي عمرو و علي)

الشركة المتفذة (شركة الصفا للملاحة النهرية)







وزارة النقل  
الهيئة العامة للطرق والكباري

بيان الأعمال المنفذه  
خلال مستخلص جاري ( ٢ )

عملية : إستكمال أعمال الساحة و المباتي الخدمية لموقف عدلي منصور ببني سويف

| رقم البند                                                                | نوع العمل                                                                                                                             | مقدار الاعمال التي تمت في خلال هذه المدة | ٢٠٢٠ |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------|
| <u>استكمال أعمال الساحة و المباتي الخدمية لموقف عدلي منصور ببني سويف</u> |                                                                                                                                       |                                          |      |
| ١                                                                        | بالمتر المسطح أعمال توريد وصب بلاطات من الخرسانة العادية بسمك ٢٠ سم                                                                   | ٧٦٠                                      | ٢ م  |
| ٣                                                                        | بالطن توريد و تنفيذ الهياكل المعدنية للمظلات من قطاعات IPE , Z shapes and Star members المشكلة على البارود او الساخن من زوايا و كمرات | ٨٠                                       | طن   |
|                                                                          | <u>تشوينات</u>                                                                                                                        |                                          |      |
| ٣                                                                        | بالطن توريد و تنفيذ الهياكل المعدنية للمظلات من قطاعات IPE , Z shapes and Star members المشكلة على البارود او الساخن من زوايا و كمرات | ٣٥-                                      | طن   |

الهيئة العامة للطرق والكباري  
مدير المشروع :.....

الشركة المنفذه  
مدير المشروع :.....





## محضر تشوينات

لعملية / إستكمال أعمال الساحة و المباني الخدمية لموقف عدلى منصور ببنى سويف  
تنفيذ / شركة الصفا للمقاولات العمومية

\*\*\*\*\*

إنه في يوم الأحد الموافق ٢ / ٢ / ٢٠٢٥ وبحضور كل من السادة :

- |                            |                                      |          |
|----------------------------|--------------------------------------|----------|
| ١- م / الشافعي ممدوح السيد | { ( الهيئة العامة للطرق و الكباري )  | طرف أول  |
| ٢- م / عبد النبي حبوني     | (بيت الخبرة للإستشارات د/عبدالحميد ) |          |
| ٣- م / إبراهيم عبدالستار   | ( شركة الصفا للمقاولات العمومية )    | طرف ثاني |

بالحضور للموقع و معاينة التشوينات أقر الطرف الأول بوجود

كمية ٥٥ ( خمسة و خمسون ) طن حديد الهياكل المعدنية للمظلات من قطاعات IPE , Z shapes and Star members المشكلة على البارد او الساخن من زوايا و كمرات و قد أفاد مهندس الشركه بأن التشوينات المذكوره تحت حراسة الشركه و في عهدها و تتعهد بتوريد التالف أو المفقود منها .  
وقد تحرر هذا محضراً بذلك ،،

التوقيعات

الطرف الأول

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