STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

Ref: CED/TFL/05/5163 Dated: 30-05-2024

Dated of Test: 04-06-2024

To

Resident Engineer
NESPAK
Rehabilitation of Sewerage Metteled Road PCC Flooring Tuff Tiles at Main Union Council Road Maraka Allama Iqbal Zone MCL (Share of Pakistan Atomic Energy Housing Scheme.

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 – 08a]**

Reference to your letter No. 4084/103/MUR/104/1803, dated 11.03.2024 on the subject cited above. One R.C.C. Pipe as received by us has been tested. The results are tabulated as under.

Sr. No.	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	36	7.97	7.63	44.33	36.19	4.07	22250	30780	2131	2948

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Material Engineer
NESPAK
Punjab Rural Sustainable Water Supply & Sanitation Project (PRSWSSP)
Engineering Design and Construction Supervision (EDCS)
Cluster Central –I, Tehsil Bhowana.

Reference # CED/TFL **5171** (Dr. M Rizwan Riaz) Dated: 31-05-2024
Reference of the request letter# NESPAK (PRSWSSP) BHOWANA/RE/127Dated: 31-05-2024

Tension Test Report (Page -1/1)

Date of Test 03-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.367	3	0.370	0.11	0.108	3620	5420	72600	74030	108600	110900	1.00	12.5	Hunza Steel
2	0.367	3	0.371	0.11	0.108	3620	5420	72600	73860	108600	110600	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Sub Divisional Officer
Highway Sub Division
Tandlianwala
(Special Repair of Road from Mamukanjan Banglow to Chak no. 553/GB, Length = 3 km.(Taken Length = 1.5 km)

Reference # CED/TFL **5173** (Dr. M Rizwan Riaz) Dated: 31-05-2024
Reference of the request letter# 1006/T Dated: 30-03-2024

Tension Test Report (Page -1/1)

Date of Test 03-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.392	3	0.383	0.11	0.115	4100	5050	82200	78350	101200	96600	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Sub Divisional Officer
Buildings Sub Division
Sargodha
(Programme for Strategic Transformation / Revamping of Old Blocks of Ex-DHQS, One at DHQ Teaching Hospital Sargodha)

Reference # CED/TFL **5175** (Dr. M Rizwan Riaz) Dated: 31-05-2024
Reference of the request letter# 509/SGD Dated: 06-04-2024

Tension Test Report (Page -1/1)

Date of Test 03-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.378	3	0.376	0.11	0.111	3490	4840	70000	69210	97000	96000	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Development Engineer
University of The Punjab
Construction of First Floor of Institute of Microbiology & Molecular Genetics at Q.A.C,
University of The Punjab.

Reference # CED/TFL **5176** (Dr. M Rizwan Riaz) Dated: 31-05-2024
Reference of the request letter# D-3717-DE Dated: 30-05-2024

Tension Test Report (Page -1/1)

Date of Test 03-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.368	3	0.371	0.11	0.108	4480	5350	89800	91380	107200	109200	0.80	10.0	
2	0.369	3	0.372	0.11	0.109	4330	5200	86800	87930	104200	105600	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Project Manager
ASE Constructors (Private) Limited
Construction of Interloop Hosiery Plant –VI, Faisalabad

Reference # CED/TFL **5178** (Dr. M Rizwan Riaz) Dated: 31-05-2024
Reference of the request letter# ASE/ST/01/2024 Dated: 29-05-2024

Tension Test Report (Page -1/1)

Date of Test 0306-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.379	3	0.377	0.11	0.112	3430	4890	68800	67780	98000	96700	1.30	16.3	Itteehad Steel
2	0.373	3	0.374	0.11	0.110	3380	4760	67800	67980	95400	95800	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Project Manager
ASE Constructors (Private) Limited
Construction of Interloop Hosiery Plant –VI, Faisalabad

Reference # CED/TFL **5179** (Dr. M Rizwan Riaz) Dated: 31-05-2024
Reference of the request letter# ASE/ST/02/2024 Dated: 29-05-2024

Tension Test Report (Page -1/1)

Date of Test 0306-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.358	3	0.366	0.11	0.105	3620	4430	72600	75770	88800	92800	0.80	10.0	Kisan Steel
2	0.367	3	0.371	0.11	0.108	3940	5050	79000	80430	101200	103100	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site
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STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Senior Engineer (University Engr.)
University of Okara
Construction of Central Mosque at University of Okara.

Reference # CED/TFL **5180** (Dr. M Rizwan Riaz) Dated: 31-05-2024
Reference of the request letter# UO/Eng.Deptt/2024/2271 Dated: 27-05-2024

Tension Test Report (Page -1/1)

Date of Test 03-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.387	3	0.381	0.11	0.114	3590	5470	72000	69570	109600	106000	1.00	12.5	F.F Steel
2	0.382	3	0.378	0.11	0.112	3640	5200	73000	71400	104200	102000	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
1- You can See your reports On Internet in the following web site
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3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Head QA/QC
Al-A'Zamiyya Block Phase I
Lahore

Reference # CED/TFL **5181** (Dr. M Rizwan Riaz) Dated: 31-05-2024
Reference of the request letter# Alz./ST/007 Dated: 31-05-2024

Tension Test Report (Page -1/1)

Date of Test 03-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.364	3	0.369	0.11	0.107	3620	4590	72600	74520	92000	94500	1.20	15.0	
2	0.370	3	0.372	0.11	0.109	3640	4610	73000	73830	92400	93600	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Punjab Rural Municipal Services Company
Procurement of Civil Works, South-III, Tehsil Taunsa Package TAU-01
(Villages: Mithay Wali & Kaluwala)

Reference # CED/TFL **5182** (Dr. M Rizwan Riaz) Dated: 31-05-2024
Reference of the request letter# NESPAK/PRSWSSP/TAUNSA/RE/253 Dated: 30-05-2024

Tension Test Report (Page -1/1)

Date of Test 03-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.375	3	0.375	0.11	0.110	4400	5150	88200	87950	103200	103000	0.80	10.0	Naveena Steel
2	0.376	3	0.375	0.11	0.111	4030	4910	80800	80320	98400	97900	1.00	12.5	
3	4.213	10	1.256	1.27	1.238	41200	54600	71500	73330	94800	97200	1.50	18.8	Sheikhoo Steel
4	4.193	10	1.253	1.27	1.232	41200	54600	71500	73680	94800	97700	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only four samples for tensile and two samples for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

#10 Bar Bend Test Through 180º is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site
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2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

PD
Sunder Industrial Estate - PIEDMC
Construction of Boundary Wall at Sunder Industrial Estate, Lahore

Reference # CED/TFL **5183** (Dr. M Rizwan Riaz) Dated: 31-05-2024
Reference of the request letter# PIE/PD/SIE/BW/04 Dated: 31-05-2024

Tension Test Report (Page -1/1)

Date of Test 03-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.381	3	0.378	0.11	0.112	3310	4990	66400	65140	100000	98200	1.30	16.3	Noor
2	0.400	3	0.387	0.11	0.117	3570	5170	71600	66970	103600	97000	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

General Manager
Union Developers (Pvt) Ltd.
Construction of Al Fathah Mall Etihad Town Lahore.

Reference # CED/TFL **5186** (Dr. M Kashif) Dated: 03-06-2024
Reference of the request letter # ME/QA/QC/2418 Dated: 30-05-2024

Tension Test Report (Page -1/1)

Date of Test 04-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.367	3	0.371	0.11	0.108	3030	4300	60800	61900	86200	87900	1.60	20.0	Hunza Steel
2	0.368	3	0.371	0.11	0.108	3060	4300	61400	62440	86200	87800	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

1- You can See your reports On Internet in the following web site
http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
2. The above results pertain to sample /samples supplied to this laboratory.
3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Assistant Project Manager – Infra and EHS
Manven Projects LLP, Islamabad
NovaCare Hospital Private Limited DHA - Phase 5, Sector D.

Reference # CED/TFL **5191** (Dr. M Kashif) Dated: 03-06-2024
Reference of the request letter # Maven/NovaCare/EPS/Strands/02 Dated: 01-06-2024

Tension Test Report (Page -1/2)

Date of Test 04-06-2024
Gauge length 600 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	**12.70 (1/2")**	**780.0**	**784.0**	**18100**	**177.56**	**19700**	**193.26**	**198**	**>3.50**	**xx**
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only one sample for Test										

Note:
1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
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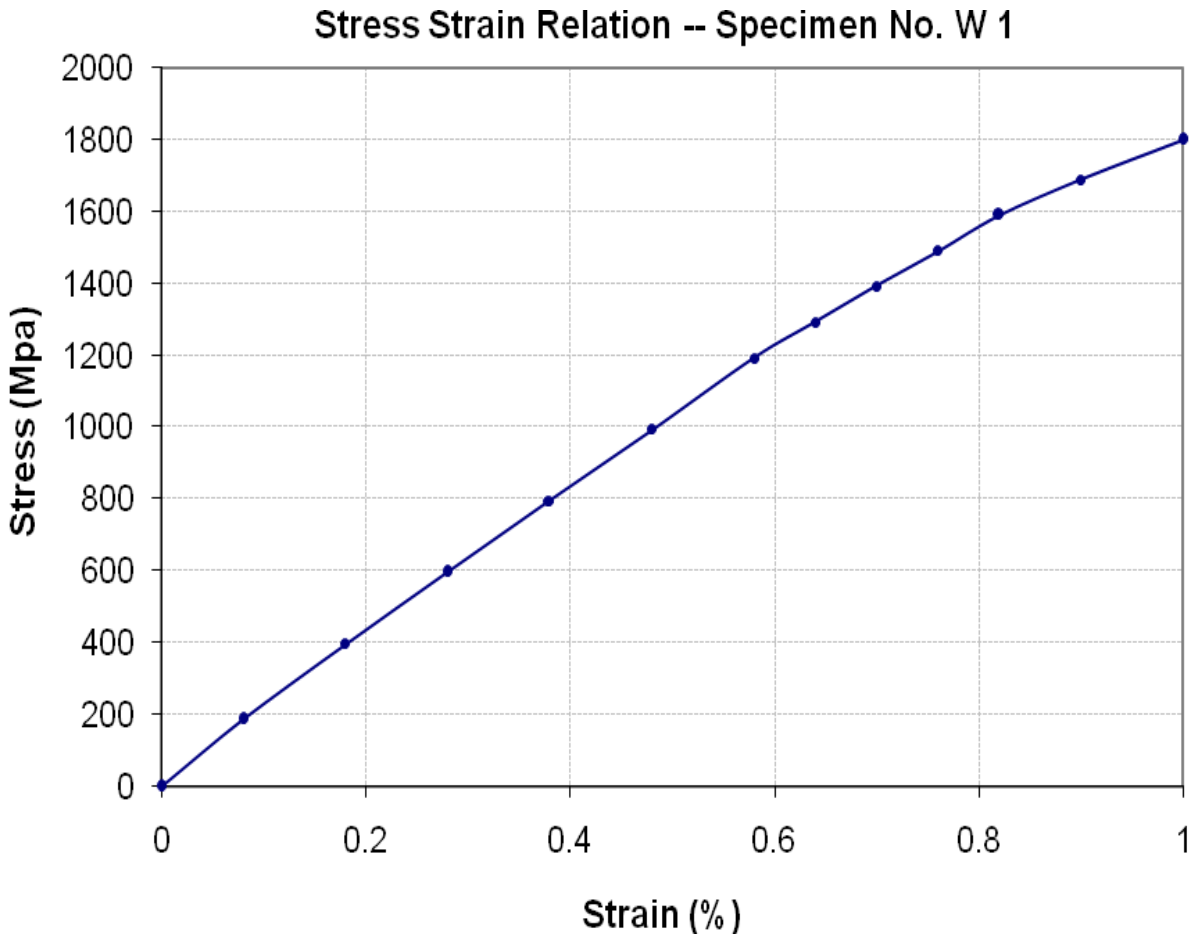
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Assistant Project Manager – Infra and EHS
Manven Projects LLP, Islamabad
NovaCare Hospital Private Limited DHA - Phase 5, Sector D.

Reference # CED/TFL **5191** (Dr. M Kashif) Dated: 03-06-2024
Reference of the request letter # Maven/NovaCare/EPS/Strands/02 Dated: 01-06-2024

Graph (Page – 2/2)



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STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

ADH (QA) Centre Lahore
GHQ, AG's Br (Housing Dte)
Askari – XI Lahore

Reference # CED/TFL **5194** (Dr. M Kashif) Dated: 03-06-2024
Reference of the request letter # 24501/HD/Lab Dated: 03-06-2024

Tension Test Report (Page -1/1)

Date of Test 04-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.367	3	0.371	0.11	0.108	4130	5050	82800	84430	101200	103300	1.20	15.0	Sheikhoo Steel
2	0.367	3	0.371	0.11	0.108	3440	4760	69000	70280	95400	97300	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
1- You can See your reports On Internet in the following web site
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STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK
Development of Internal Infrastructure of CBD Walton (Phase 2 & 3) & Flyover Connecting Bab-e-Pakistan to Walton.

Reference # CED/TFL **5195** (Dr. M Kashif) Dated: 03-06-2024
Reference of the request letter # 4322/13/DAK/02/220 Dated: 03-05-2024

Tension Test Report (Page -1/1)

Date of Test 04-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.375	3	0.375	0.11	0.110	3720	4890	74600	74300	98000	97700	1.20	15.0	FF Steel
2	0.375	3	0.375	0.11	0.110	3670	4950	73600	73430	99200	99100	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
1- You can See your reports On Internet in the following web site
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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK (RRR)
Construction of Rawalpindi Ring Road (RRR) (38.3 km)Main Carriageway (MCW) from Baanth (N-5) to Thalian (M-2)(Group-1)(United Wire)

Reference # CED/TFL **5196** (Dr. M Kashif) Dated: 03-06-2024
Reference of the request letter # 4713/RRR/MH/106/2024 Dated: 03-06-2024

Tension Test Report (Page -1/3)

Date of Test 04-06-2024
Gauge length 600 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	**12.70 (1/2")**	**780.0**	**788.0**	**17500**	**171.68**	**19500**	**191.30**	**199**	**>3.50**	**xx**
2	**12.70 (1/2")**	**780.0**	**787.0**	**17700**	**173.64**	**19600**	**192.28**	**199**	**>3.50**	**xx**
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only two samples for Test										

Note:
1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
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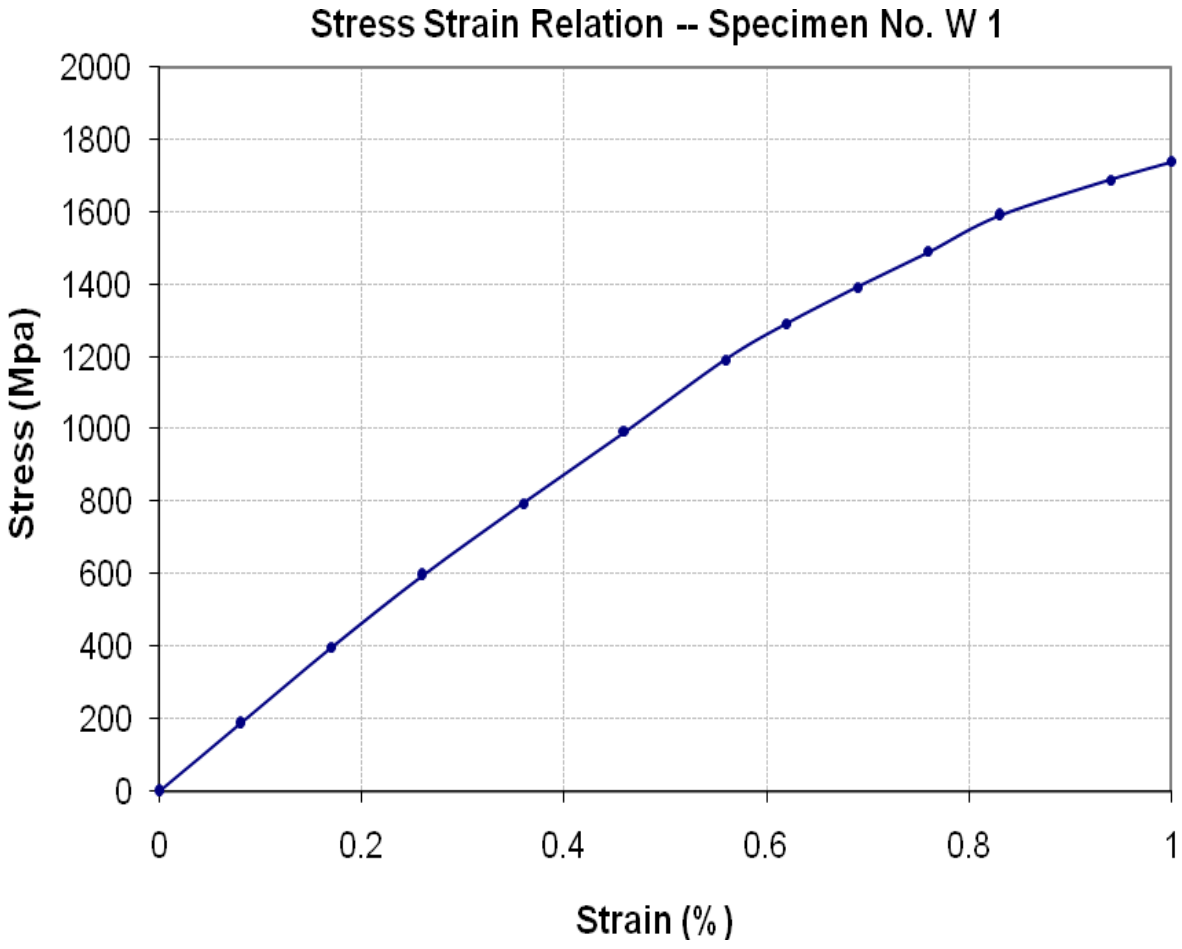
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK (RRR)
Construction of Rawalpindi Ring Road (RRR) (38.3 km)Main Carriageway (MCW) from Baanth (N-5) to Thalian (M-2)(Group-1)(United Wire)

Reference # CED/TFL **5196** (Dr. M Kashif) Dated: 03-06-2024
Reference of the request letter # 4713/RRR/MH/106/2024 Dated: 03-06-2024

Graph (Page – 2/3)



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UET Lahore, Pakistan.

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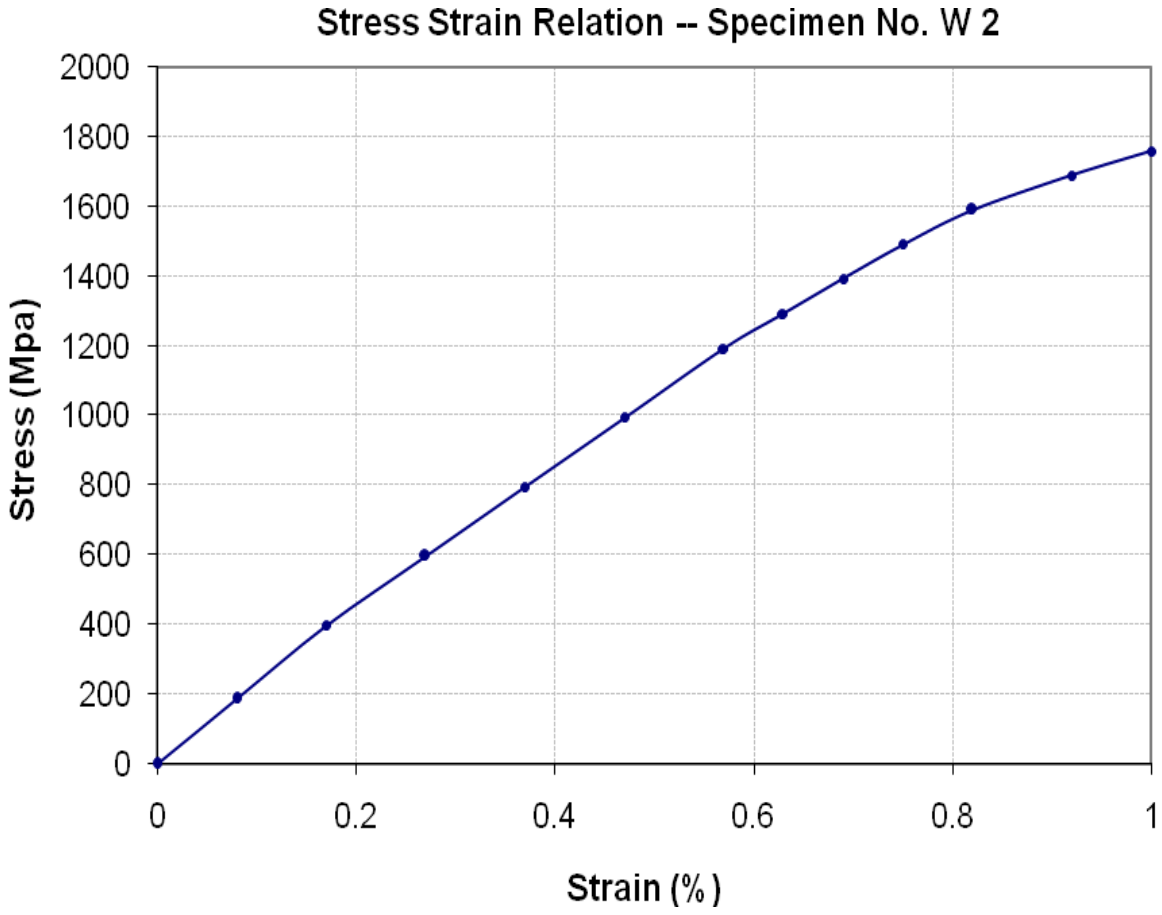
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
NESPAK (RRR)
Construction of Rawalpindi Ring Road (RRR) (38.3 km)Main Carriageway (MCW) from Baanth (N-5) to Thalian (M-2)(Group-1)(United Wire)

Reference # CED/TFL **5196** (Dr. M Kashif) Dated: 03-06-2024
Reference of the request letter # 4713/RRR/MH/106/2024 Dated: 03-06-2024

Graph (Page – 3/3)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Manager
Engineering Department
Shenjiao Engineering Company Pvt. Ltd.

Reference # CED/TFL **5200** (Dr. M Kashif) Dated: 04-06-2024
Reference of the request letter # SECO-CC-UAT-INTR-0016 Dated: 04-06-2024

Tension Test Report (Page – 1/1)

Date of Test 04-06-2024
Gauge length 8 inches
Description HDG Wire Tensile Test

Sr. No.	Weight	Diameter/ size		Area (mm^2)		Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(kg/m)	Nominal (mm)	Actual (mm)	Nominal	Actual	(kg)	(kg)	(MPa)	(MPa)	(inch)		
1	0.095	3.2	3.93	--------	12.2	--------	610	--------	492	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test												
Bend Test												

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
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STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer,
Orbit Developers Private Limited
The Spring Atrium, Gulberg Lahore.

Reference # CED/TFL **5207** (Dr. Asad Ali) Dated: 04-06-2024
Reference of the request letter# NIL Dated: 04-06-2024

Tension Test Report (Page -1/1)

Date of Test 04-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.366	3	0.370	0.11	0.108	3330	5170	66800	68190	103600	105900	0.90	11.3	
2	0.372	3	0.373	0.11	0.109	3330	5150	66800	67060	103200	103800	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
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STRUCTURAL ENGINEERING DIVISION

Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Engineer's Representative
NESPAK jv TurkPak
Construction of Green Building for EMC, EPD and Allied New Entities Estabalished under PGDP (DLI-2, PGDP) Lahore.

Reference # CED/TFL **5208** (Dr. Asad Ali) Dated: 04-06-2024
Reference of the request letter# 4731/MAA/03/41 Dated: 03-06-2024

Tension Test Report (Page -1/1)

Date of Test 04-06-2024
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.377	3	0.376	0.11	0.111	3490	5350	70000	69420	107200	106500	0.90	11.3	Markhor
2	0.380	3	0.377	0.11	0.112	3520	5370	70600	69530	107600	106100	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

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