Ref: <u>CED/TFL/06/7054</u> Dated: <u>02-06-2025</u>

Dated of Test: 17-06-2025 (Dr. Asif Hameed)

To

Mr. M. Tufail Resident Engineer PCP (Package-II), MMP. Rehabilitation of Sewerage System in Muridke City Under PCP.

Subject: TESTING OF R.C.C. PIPE (ASTM-C76)

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	D-Load (0.01 inch)	D-Load Ultimate
	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(kg)	(kg)	Lbs/Linear foot/foot	Lbs/Linear foot/foot
1	12	92.4	87.2	16.0	12.33	1.83	8500	11000	2509	3247
2	24	93.4	85.7	30.0	24.13	2.93	5630	7760	864	1191

Dated of Test: 03-06-2025 (Dr. Asif Hameed)

To

Assistant Engineer
Local Govt: & Community Development
Civil Sub Division District Hafizabad
Construction of Street / Draining / Sewerage System at Municipal Committee,
Hafizabad.

Subject: TESTING OF R.C.C. PIPE (Page – 1/3)

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	D-Load (0.01 inch)	D-Load Ultimate
	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(kg)	(kg)	Lbs/Linear foot/foot	Lbs/Linear foot/foot
1	12	93.1	88.1	15.8	11.70	2.05	10500	15000	3234	4620

Dated of Test: 17-06-2025 (Dr. Safeer Abbas)

To

Assistant Engineer
Local Govt: & Community Development
Civil Sub Division District Hafizabad
Construction of Street / Draining / Sewerage System at Municipal Committee,
Hafizabad.

Subject: TESTING OF R.C.C. PIPE (Page – 2/3)

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	D-Load (0.01 inch)	D-Load Ultimate
	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(kg)	(kg)	Lbs/Linear foot/foot	Lbs/Linear foot/foot
1	21	93.3	86.8	26.5	20.70	2.90	9470	13730	1673	2426

Dated of Test: 17-06-2025 (Dr. Safeer Abbas)

To

Assistant Engineer
Local Govt: & Community Development
Civil Sub Division District Hafizabad
Construction of Street / Draining / Sewerage System at Municipal Committee,
Hafizabad.

Subject: TESTING OF R.C.C. PIPE (Page – 3/3)

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	D-Load (0.01 inch)	D-Load Ultimate
•	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(kg)	(kg)	Lbs/Linear foot/foot	Lbs/Linear foot/foot
1	24	93.0	85.2	30.0	24.07	2.97	4140	9470	641	1466

Shahzad & Company Construction Services Boiler Foundation for PEB Structure

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Reference # CED/TFL 7084 (Dr. Rizwan Azam) Dated: 16-06-2025 Reference of the request letter # Nil Dated: 16-06-2025

Tension Test Report (Page-1/1)

Date of Test 17-06-2025 Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	al Weight Per Unit Length (lb/ft)	al Size (mm)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load	Yield (p	Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.329	10	0.351	0.120	0.097	27.20	43.20	50936	63175	80899	100337	1.0	12.5	-
2	0.330	10	0.351	0.120	0.097	27.50	44.00	51498	63714	82397	101943	1.0	12.5	-
-	-	ı	-	-	-	1	•	ı	ı	ı	-	1	1	-
-	ı	ı	ı	-	-	ı	ı	ı	ı	ı	-	-	ı	-
-	-	ı	-	-	-	-	-	-	-	-	-	-	-	-
-	-	1	-	-	-	-	1	-	1	-	-	-	1	-
				Note: (Only 2 S	amples	for Tens	sile and 1	Samples	for Bend	test			

Bend Test

10mm Bar Bend Test Through 180 Degree is Not Satisfactory

Mr. Kashif Shahzad (Manager-Technical)

Gharibwal Cement Ltd.

Witness by: Mr. Kashif Shahzad (Manager Technical) and Mr. Mudassar Maqsood (Quality

Assurance Manager)

Reference # CED/TFL 7085 (Dr. Rizwan Azam) Dated: 16-06-2025 Reference of the request letter # GCL/Purchase/UET/006 Dated: 16-06-2025

Tension Test Report (Page-1/2)

Date of Test 17-06-2025 Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	al Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	Elongation	Remarks
	Actual V		Actual D	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	2
1	4.251	32	1.261	1.250	1.249	35800	58200	63123	63166	102618	102689	1.4	17.5	687/1
2	4.203	32	1.254	1.250	1.235	35400	57600	62417	63167	101560	102781	1.5	18.8	687/2
3	4.223	32	1.257	1.250	1.241	32600	54600	57480	57897	96271	96969	1.7	21.3	644
4	4.191	32	1.252	1.250	1.232	34000	56200	59949	60848	99092	100579	1.4	17.5	756/1
5	4.265	32	1.263	1.250	1.253	34200	56200	60301	60146	99092	98836	1.5	18.75	756/2
6	4.178	32	1.25	1.250	1.228	32600	55000	57480	58529	96976	98744	1.7	21.25	255/1
				Note: (Only 6 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Mr. Kashif Shahzad (Manager-Technical)

Gharibwal Cement Ltd.

Witness by: Mr. Kashif Shahzad (Manager Technical) and Mr. Mudassar Maqsood (Quality

Assurance Manager)

Reference # CED/TFL 7085 (Dr. Rizwan Azam) Dated: 16-06-2025 Reference of the request letter # GCL/Purchase/UET/006 Dated: 16-06-2025

Tension Test Report (Page-2/2)

Date of Test 17-06-2025 Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	l Weight Per Unit ength (lb/ft)	al Size (mm)	Actual Diameter (inch)	Area	(in²)	Yield Load	Breaking Load		Stress si)		e Stress si)	Elongation	Elongation	Remarks
91	Actua	Nominal	Actual D	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
7	4.278	32	1.265	1.250	1.257	34200	55600	60301	59964	98034	97486	1.5	18.8	255/2
8	4.189	32	1.252	1.250	1.231	32400	54400	57128	58017	95918	97411	1.5	18.8	255/3
9	4.270	32	1.264	1.250	1.255	34400	57000	60654	60424	100502	100122	1.5	18.8	254
10	4.258	32	1.262	1.250	1.251	36000	60000	63475	63421	105792	105701	1.3	16.3	757
-	-	ı	-	_	-	-	-	-	_	_	-	ı	-	-
												-		
				Note: (Only 4 S	Samples	for Tens	sile and 0	Samples	for Bend	test			

Bend Test

Test Performed and Verified by:

Ref: <u>CED/TFL/06/7054</u> Dated: <u>02-06-2025</u>

Dated of Test: 17-06-2025 (Dr. Asif Hameed)

To

Mr. M. Tufail Resident Engineer PCP (Package-II), MMP. Rehabilitation of Sewerage System in Muridke City Under PCP.

Subject: TESTING OF R.C.C. PIPE (ASTM-C76)

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	D-Load (0.01 inch)	D-Load Ultimate
	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(kg)	(kg)	Lbs/Linear foot/foot	Lbs/Linear foot/foot
1	12	92.4	87.2	16.0	12.33	1.83	8500	11000	2509	3247
2	24	93.4	85.7	30.0	24.13	2.93	5630	7760	864	1191

Dated of Test: 03-06-2025 (Dr. Asif Hameed)

To

Assistant Engineer
Local Govt: & Community Development
Civil Sub Division District Hafizabad
Construction of Street / Draining / Sewerage System at Municipal Committee,
Hafizabad.

Subject: TESTING OF R.C.C. PIPE (Page – 1/3)

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	D-Load (0.01 inch)	D-Load Ultimate
	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(kg)	(kg)	Lbs/Linear foot/foot	Lbs/Linear foot/foot
1	12	93.1	88.1	15.8	11.70	2.05	10500	15000	3234	4620

Dated of Test: 17-06-2025 (Dr. Safeer Abbas)

To

Assistant Engineer
Local Govt: & Community Development
Civil Sub Division District Hafizabad
Construction of Street / Draining / Sewerage System at Municipal Committee,
Hafizabad.

Subject: TESTING OF R.C.C. PIPE (Page – 2/3)

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	D-Load (0.01 inch)	D-Load Ultimate
	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(kg)	(kg)	Lbs/Linear foot/foot	Lbs/Linear foot/foot
1	21	93.3	86.8	26.5	20.70	2.90	9470	13730	1673	2426

Dated of Test: 17-06-2025 (Dr. Safeer Abbas)

To

Assistant Engineer
Local Govt: & Community Development
Civil Sub Division District Hafizabad
Construction of Street / Draining / Sewerage System at Municipal Committee,
Hafizabad.

Subject: TESTING OF R.C.C. PIPE (Page – 3/3)

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	D-Load (0.01 inch)	D-Load Ultimate
•	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(kg)	(kg)	Lbs/Linear foot/foot	Lbs/Linear foot/foot
1	24	93.0	85.2	30.0	24.07	2.97	4140	9470	641	1466

Shahzad & Company Construction Services Boiler Foundation for PEB Structure

_

Reference # CED/TFL 7084 (Dr. Rizwan Azam) Dated: 16-06-2025 Reference of the request letter # Nil Dated: 16-06-2025

Tension Test Report (Page-1/1)

Date of Test 17-06-2025 Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	al Weight Per Unit Length (lb/ft)	al Size (mm)	Actual Diameter (inch)	Area	(in ²)	Yield Load	Breaking Load	Yield (p	Stress si)		e Stress si)	Elongation	% Elongation	Remarks
	Actual	Nominal	Actual D	Nominal	Actual	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)	% E	R
1	0.329	10	0.351	0.120	0.097	27.20	43.20	50936	63175	80899	100337	1.0	12.5	-
2	0.330	10	0.351	0.120	0.097	27.50	44.00	51498	63714	82397	101943	1.0	12.5	-
-	-	ı	-	-	-	1	•	ı	ı	ı	-	1	1	-
-	ı	ı	ı	-	-	ı	ı	ı	ı	ı	-	-	ı	-
-	-	ı	-	-	-	-	-	-	-	-	-	-	-	-
-	-	1	-	-	-	-	1	-	1	-	-	-	1	-
				Note: (Only 2 S	amples	for Tens	sile and 1	Samples	for Bend	test			

Bend Test

10mm Bar Bend Test Through 180 Degree is Not Satisfactory

Mr. Kashif Shahzad (Manager-Technical)

Gharibwal Cement Ltd.

Witness by: Mr. Kashif Shahzad (Manager Technical) and Mr. Mudassar Maqsood (Quality

Assurance Manager)

Reference # CED/TFL 7085 (Dr. Rizwan Azam) Dated: 16-06-2025 Reference of the request letter # GCL/Purchase/UET/006 Dated: 16-06-2025

Tension Test Report (Page-1/2)

Date of Test 17-06-2025 Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	8
1	4.251	32	1.261	1.250	1.249	35800	58200	63123	63166	102618	102689	1.4	17.5	687/1
2	4.203	32	1.254	1.250	1.235	35400	57600	62417	63167	101560	102781	1.5	18.8	687/2
3	4.223	32	1.257	1.250	1.241	32600	54600	57480	57897	96271	96969	1.7	21.3	644
4	4.191	32	1.252	1.250	1.232	34000	56200	59949	60848	99092	100579	1.4	17.5	756/1
5	4.265	32	1.263	1.250	1.253	34200	56200	60301	60146	99092	98836	1.5	18.75	756/2
6	4.178	32	1.25	1.250	1.228	32600	55000	57480	58529	96976	98744	1.7	21.25	255/1
Note: Only 6 Samples for Tensile and 0 Samples for Bend test														

Bend Test

Mr. Kashif Shahzad (Manager-Technical)

Gharibwal Cement Ltd.

Witness by: Mr. Kashif Shahzad (Manager Technical) and Mr. Mudassar Maqsood (Quality

Assurance Manager)

Reference # CED/TFL 7085 (Dr. Rizwan Azam) Dated: 16-06-2025 Reference of the request letter # GCL/Purchase/UET/006 Dated: 16-06-2025

Tension Test Report (Page-2/2)

Date of Test 17-06-2025 Gauge Length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Actual Weight Per Unit Length (lb/ft)	Nominal Size (mm)	Actual Diameter (inch)	Area (in²)		Yield Load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	Elongation	Remarks
				Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)	% E	 &
7	4.278	32	1.265	1.250	1.257	34200	55600	60301	59964	98034	97486	1.5	18.8	255/2
8	4.189	32	1.252	1.250	1.231	32400	54400	57128	58017	95918	97411	1.5	18.8	255/3
9	4.270	32	1.264	1.250	1.255	34400	57000	60654	60424	100502	100122	1.5	18.8	254
10	4.258	32	1.262	1.250	1.251	36000	60000	63475	63421	105792	105701	1.3	16.3	757
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	ı	ı	-	ı	-
Note: Only 4 Samples for Tensile and 0 Samples for Bend test														

Bend Test