

Dreux A. Seghers, P.E., LLC

Consulting Civil Engineer
166 Nixon Street, Biloxi, MS 39530
(228) 324-5771

January 21, 2026

Mr. Yuri Petrini
1606 Beach Boulevard
Biloxi, MS 39531

Re: Elevated Deck – Deflection Measurements
Homeowner: Mr. and Mrs. Yuri Petrini
Subject: Report of Findings

Dear Mr. Petrini:

As per your request, I have taken deflection measurements of the horizontal beams of the elevated pool deck that is constructed in front of your residence located at 1606 Beach Boulevard in Biloxi, MS.

The as-built pool deck plans provided of the construction were prepared and sealed by Mr. Terry Moran, PE who is the engineer of record for the project. I have used the as-built drawing to indicate where measurements were taken. For purposes of discussion, the residence is assumed to face south. Equipment used to take the measurements included a Bosch self-leveling laser level, model # GLL100-40G and a Lufkin Red End Rugged Engineer construction ruler.

Measurements were taken along the beams of the underside of the elevated pool deck as shown on the attached drawing. The pool is a fiberglass shell that is located on the southeast corner of the elevated deck. The pool specifications state that when the pool is filled the weight is approximately 55,763 lbs. The pool specifications state that the weight of water contained in a full pool is approximately 52,250 lbs. Therefore, the pool shell weighs approximately 3,513 lbs.

On January 19, 2026 I took measurements under the deck (specifically the bottom of the horizontal beams) with the pool filled with water. On January 20, 2026 I took measurements in the same locations under the elevated deck with the pool emptied of water. The measurements taken on the different days have an arbitrary benchmark and are relative to each other. Therefore, the deflection or movement in the beam is determined by subtracting the Day 1 measurements from the Day 2 measurements in the same locations.

From my measurements, I found that the deck had two locations where deflection or movement was identified. (see red markings on attached drawing) The differences in elevation difference are (+) ¼” at the center of the midpoint of the center beam running

north-south and (-) ¼” at the center of the midpoint of the west beam running north-south. These differences are minimal and include some acceptable tolerances in the equipment measuring capabilities. However, it is clear, from the measurements, that the deck experiences little to no movement from the load of the fully-filled pool.

Summary

The information and data stated above indicates that the pool deck experiences little to no deflection from the additional weight of the filled pool.

This report is limited to the items referenced above. It is not intended to confirm or refute any design assumptions made by the design engineer of record. This report was prepared for the exclusive use of Yuri Petrini and is not intended for any other purpose. My report is based on information made available to me at this time. Should additional information become available, I reserve the right to determine the impact, if any, of the new information on my opinions and conclusions and to revise my opinions and conclusions if necessary and warranted by the discovery of additional information.

Sincerely,

Dreux A. Seghers, P.E.
MS # 11888
Consulting Civil Engineer

Attachments:

- *As-Built Pool Deck drawing prepared by Terry Moran dated July 30, 2025*
- *Pool Specification drawing, model Tunis I-C11, from iGUi Pools dated June 5, 2024*
- *Photographs*

ATTACHMENTS

As-Built Drawing with Deflection Measurements

Pool Specification Drawing

Photographs



Front or south elevation showing the structural pool deck with pool



View showing pool filled with water (fully loaded)

north-south and (-) ¼” at the center of the midpoint of the west beam running north-south. These differences are minimal and include some acceptable tolerances in the equipment measuring capabilities. However, it is clear, from the measurements, that the deck experiences little to no movement from the load of the fully-filled pool.

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ENGLISH (US)

- STAIRS
- BENCH
- DEPTH
- LONGITUDINAL SECTION
- CROSS SECTION
- INTERNAL MEASURE
- WATER LEVEL
- TANNING LEDGE

NOTE:
 - NO SCALE
 - THIS MODEL PRESENTS BRACKETS ALONG THE EDGE AND REINFORCEMENTS DISTRIBUTED AT A MEDIUM DISTANCE OF 18".

ESPAÑOL (ES)

- ESCALONES/ESCALERA
- BANCO
- PROFUNDIDAD
- CORTE LONGITUDINAL
- CORTE TRANSVERSAL
- MEDIDA INTERNA
- NIVEL DE AGUA
- ÁREA DE BRONCEADO

NOTA:
 - SIN ESCALA
 - ESTE MODELO PRESENTA SOPORTES A LO LARGO DEL BORDE Y REFUERZOS DISTRIBUIDOS A UNA DISTANCIA MEDIA DE 35cm.

FRANÇAIS (FR)

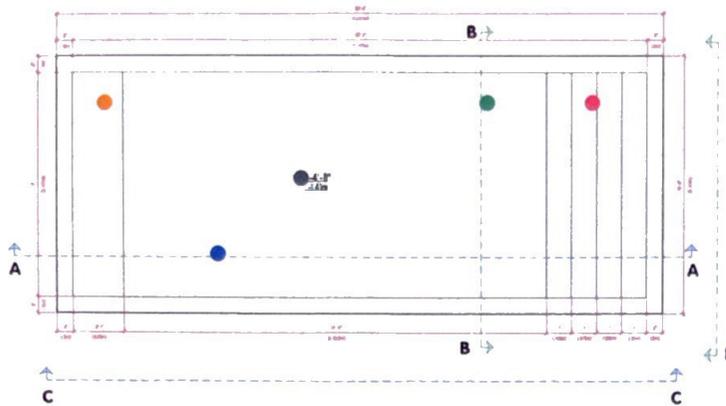
- ESCALIERS
- BANC
- PROFONDEUR
- SECTION LONGITUDINALE
- LA COUPE TRANSVERSALE
- MESURE INTERNE
- NIVEAU D'EAU
- ZONE DE BRONZAGE

REMARQUE:
 - SANS ÉCHELLE
 - CE MODÈLE PRÉSENTE DES SUPPORTS LE LONG DU BORD ET DES RENFORTS DISTRIBUÉS À UNE DISTANCE MOYENNE DE 35cm.

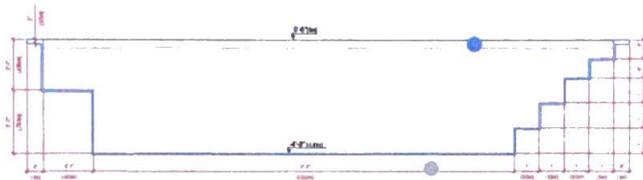
iGUi POOLS



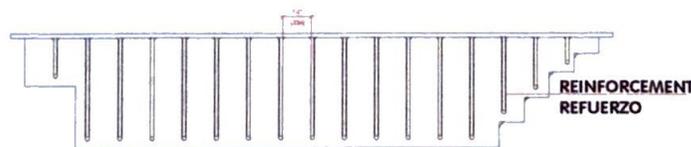
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TECHINICAL DRAWING
 DIBUJO TÉCNICO

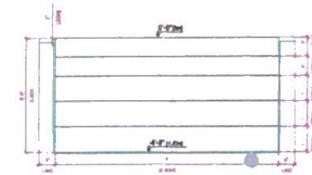


LONGITUDINAL SECTION A-A
 SECCIÓN LONGITUDINAL A-A

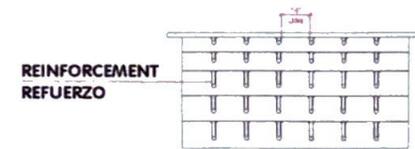


LONGITUDINAL SIDE VIEW C-C
 VISTA LATERAL LONGITUDINAL C-C

SPECIFICATIONS ESPECIFICACIONES		
SHELL WEIGHT PESO DE LA PISCINA	1943.0 lb	880.0 kg
WATER WEIGHT PESO DEL AGUA	52748.5 lb	23700.0 kg
FINISHES SURFACE SUPERFICIE DE ACABADO	480.0 sq ft	44.60 m ²
FINISHES WEIGHT (7" x 7") PESO DEL ACABADO (18.25 x 18.25 cm)	1671.1 lb	758.0 kg
TOTAL WEIGHT PESO TOTAL	55763.7 lb	25204.0 kg
WATER VOLUME VOL VOLUMEN DEL AGUA	838.96 m ³	23.7 m ³
WATER GALLONS GALONES DEL AGUA	8280.8 gal	29700.0 L
SHELL AREA ÁREA DE LA PISCINA	255.2 m ²	23.11 m ²
PERIMETER PERÍMETRO	70' 0"	21.368 m
ICC-ES LISTED ICCES LISTADO	ESR-4370	



CROSS SECTION B-B
 SECCIÓN TRANSVERSAL B-B



CROSS SIDE VIEW D-D
 VISTA LATERAL TRANSVERSAL D-D

Tunis I-C11

06/05/2024

01/01

www.iGui.com

