Steel Casing Micropiles
Permanent steel casings micropiles are an advantageous foundation system:
• High geotechnical capacities.
• Suitable for challenging subsurface conditions.
• Suitable at sites with limited access.
• Segmental installation for situations with low head clearance.

Testing Program at UMaine
A total of 63 micropiles will be tested at the facilities of the Advance Structures and Composites Center. The specimens can be grouped in 20 different test with varying thread details, with and without reinforcement, and considering combined loads (bending+compression).

Approach
Micropiles will be tested in bending by means of a four-point bending test:
• String-pots and inclinometers to monitor local displacements and rotations.
• Digital image correlation (DIC) to monitor detailed displacement field near the joint location (mid-span).
• Combined loading by applying a compressive load through a post-tensioning system.

Analytical Model
Micropile specimens prepared for UMaine study.