Pre-Build Soil Testing Checklist (Florida)

Who this is for: Homeowners building custom homes and Builders/GCs in Tampa Bay, Orlando, and Southwest Florida.

Project: _____
Site Address/City: _____
Builder/GC: _____
Geotechnical Engineer (Firm/Contact): _____
Structural Engineer: _____
Planned Foundation/Pool Support: Slab-on-grade / Stem wall / Helical piers / Other: _____
Target Start Date: __ / __ / ____

---

1) Pre-Design Due Diligence

- ☐ Review historical land use (former wetlands, filled swales, prior structures) and any nearby sinkhole claims.
- ☐ Collect existing geotech docs (plats, old borings) and survey/topo with proposed FFE (finished floor elevation).
- ☐ Confirm stormwater/drainage strategy so water never sits at the foundation; plan positive slope away from structure.
- ☐ Schedule **Helicon Pre-Construction Site Review**; align on access, utilities, and laydown areas.

2) Field Investigation — Day 1 (Shallow Checks)

- ☐ Site walk + shallow probing at footprint corners/center; mark all utilities (811 ticket complete).
- ☐ Identify/remove shallow organics, buried debris/fill, and tree roots within the influence zone; photograph findings.
- ☐ Verify existing grade; plan cut/fill and near-surface replacement where soils are unsuitable.

3) Diagnostics — Day 2 (If Indicated)

- ☐ Order **GPR/ERT** scan to locate anomalies (possible loose zones/void activity).
- ☐ Plan **SPT and/or CPT borings**: quantity, depths, and target locations based on scan and footprint.
- ☐ Lab samples requested: moisture content, **organics % (LOI)**, Atterberg limits/plasticity (clays), pH/corrosivity as required.

4) Geotech Report & Criteria

- ☐ Confirm **organics < 5%** (if >5%, mitigation required).
- ☐ Establish allowable **bearing capacity** and **total/differential settlement** criteria for design.
- ☐ Receive stamped report with recommendations for ground improvement and foundation support.

5) Ground-Improvement Decision (Pre-Construction)

- ☐ **Compaction Grouting (Pressure Grouting)** specified: treatment grid, depths, target pressures/volumes, verification method.
- ☐ **Pre-Construction Helical Piers** (if persistent weak layers/organics at depth): design loads, spacing, torque criteria, corrosion spec.
- ☐ Sequence and access confirmed (install **before** forming/pouring).

6) Pre-Pour Quality Control

- ☐ **Compaction Grouting**: injection log sheets complete (pressures, volumes, refusal/uptake); post-treatment proof points as specified.
- ☐ **Helical Piers**: torque logs per pier; Kt-T correlation meets design capacity; engineer sign-off.
- ☐ **Earthwork/Subgrade**: proof-roll complete; density/moisture verified (ASTM D1557/D6938) as required; pad elevation and outward slope confirmed (≥5% across first 10 ft where feasible).

7) Documentation & Closeout

- ☐ Archive geotech report, boring logs, lab results, QA/QC logs, as-builts, and photos.
- ☐ Provide owner/builder with maintenance notes (surface drainage, trees/roots, irrigation control).
- ☐ Final **Request a Pre-Construction Site Review** confirmation and warranty terms delivered.

Budget Guidance (Broad Ranges)

- **Shallow testing & site exploration: ~ $2,500** (typical for small, less complex sites).
- **Scans + selective borings:** often **under ~$6,000** for clarity on larger, more complex sites.
- **Compaction Grouting (Pressure Grouting): $30,000–$100,000+** (depth to limestone, volume, treatment area).

- **Pre-Construction Helical Piers: $30,000–$100,000+** (pier count/length, design loads; home and/or pool).
  Disclosure: Final scope and price depend on geotechnical findings, structure size/weight, access, and engineering.

"An ounce of prevention is worth a pound of cure — once a home is finished, foundation repairs can easily cost twice as much as pre-construction stabilization."
— *David Grindley, PE (Grindley Williams Engineering)*

Helicon USA — Florida Statewide
Tampa • Orlando • Fort Myers
Request a Pre-Construction Site Review: https://heliconusa.com/free-inspection-request/