FLORIDA DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL REQUIREMENTS[i]

Introduction

The Florida Department of Transportation (FDOT) maintains an approved products list for Retaining Wall Systems. The list covers a variety of types of retaining wall systems. This list is available on the FDOT website, see https://fdotwp1.dot.state.fl.us/ApprovedProductList/ProductTypes/Index/62.

Retaining wall vendor submittal requirements for requesting approval are stated in FDOT Standard Specifications for Road and Bridge Construction, which is available at: https://www.fdot.gov/programmanagement/Implemented/Specbooks/Default.shtm. In Section 6 Control of Materials, under subsection 6-1.3.1.1 Approved Products List states:

- Manufacturers seeking to have a product evaluated for the APL must submit a Request for Product Consideration application, available on the Department's website at the following URL: https://www.fdot.gov/programmanagement/ProductEvaluation/Default.shtm.
- Applications must include supporting documentation as required by the Specifications, Standard Plans, and APL approval process.
- Required test reports must be conducted by an independent laboratory or other independent testing facility and required drawings and calculations must be signed and sealed by a Professional Engineer licensed in the State of Florida unless defined otherwise in the Specifications, Standard Plans, and APL approval process requirements.
- Applications must be signed by a legally responsible person employed by the manufacturer of the product.

Supporting documentation requirements for retaining walls is listed in Section 548 Retaining Wall Systems, under subsection 548-3 Approved Products List (APL). Most of the required documentation items are contained in an IDEA report. However, there are some additional requested items and specific formats, which are not listed (or specifically noted) on the IDEA protocols (available at https://www.geoinstitute.org/special-projects/idea). A retaining wall supplier with an IDEA report should supplement their IDEA report with the additional, specific items and/or formats that FDOT requires listed below.

Information items that are identical to, and therefore redundant to, IDEA protocol listed items are not listed in this supplemental requirements report. However, items under a topic that the agency requests which are, or may be, more specific or detailed than the IDEA protocol are listed. The wall system supplier submittal may address this in their supplemental information or, if fully addressed in their IDEA submittal, refer to their IDEA report.

FDOT should contact the IDEA webmaster and update this report if/when their policies, etc. change. This supplemental requirements report is readily updateable, and a revision number and new date should be noted when updated.

Supplement Items

Submit calculations and drawings showing details, notes, materials, dimensions, sizes, and other information as described below for a complete description of the retaining wall system.

1) A FDOT Request for Product Consideration application, signed by a legally responsible person employed by the manufacturer of the product.
2) The vendor's IDEA submittal (appended to the IDEA Summary Evaluation Report) should be signed and sealed by a Professional Engineer registered in the State of Florida.
3) The effects of water flow.
4) Applicable environmental classifications as outlined in the FLDOT Structures Design Guidelines (SDG); available at https://www.fdot.gov/structures/structuresmanual/currentrelease/structuresmanual.shtm.
5) Example design calculations signed and sealed by a Professional Engineer registered in the State of Florida. Note that design calculations may be either by hand or by a wall company program with hand calculations verifying the program output.
6) Construction drawings, in 11-inch by 17-inch format, showing:
    a) Notes specific to the wall system;
    b) Panel sizes and reinforcing;
    c) Soil reinforcement connection to wall facings;
    d) Wall panel abutment interfacing;
    e) Slip joints;
    f) Steps in leveling pad;
    g) Soil reinforcing details around all vertical obstructions;
    h) Filter fabric placement at panel joints and around all obstructions;
    i) Details for skewing soil reinforcement (15 degrees maximum) without cutting;
    j) Corner elements (required at all angle breaks greater than 5 degrees);
    k) Bin wall details for acute corners (required at all acute corners where interior corner angle is less than 70 degrees);
    l) Details showing how to accommodate long term (post construction) wall settlement in excess of four inches without attaching soil reinforcement to the abutment; and,
    m) Details of how to ground the wall system.
7) Pullout test data for the proposed wall/reinforcement connection, and size and type of soil reinforcement for wall system. Testing shall be done by an independent soil testing laboratory or testing agency certified by the Department. Ensure test data includes all sizes and types of soil reinforcement to be utilized on Department projects. Default AASHTO values may be used for conventional soil reinforcement. For soil reinforcement grids, include all various configurations and combinations of longitudinal and transverse wires.
8) A field construction manual, describing construction requirements and sequencing for the wall system, in 8½-inch by 11-inch format in either Adobe pdf or MS Word format.

[i] Report Ver 1, June 2021.