

**CALIFORNIA DEPARTMENT OF TRANSPORTATION
AUTHORIZATION PROCEDURES AND ACCEPTANCE CRITERIA
FOR NEW EARTH RETAINING SYSTEMS**



Note: This is a transition period for all existing suppliers to comply with the new requirements below. Only suppliers meeting the requirements below will be kept on the Department's Authorized Materials List.

The Department is accepting submittals for new Earth Retaining Systems for use on the State Highway. The following procedures are required to authorize a new Earth Retaining System for inclusion on the Authorized Material List (AML).

A New Product Submittal Package (NPSP) must be submitted for each new product (one NPSP per new product) proposed for inclusion in the Authorized Material List (AML) for Earth Retaining Systems (ERS). The submittal package must be submitted in the following format. Part 1 must be complete for evaluation. Parts 2 and 3 may be delayed until after evaluation has been completed. Approval for listing on the AML for ERS requires all three parts to be current.

PART 1: New Products Assessment Package

1. [Earth Retaining Systems New Product Submittal Form](#) (NPSF), with appropriate signatures.
2. Product literature and photographs (brochures, cut sheets, specifications, etc.).
3. Highway Innovative Technology Evaluation Center (HITEC) evaluation or equivalent.
4. Contact list, if applicable, identifying other entities that have utilized the product.
5. Other pertinent information about the product and/or product use.

PART 2: Design Evaluation Package

1. Standardized Plans and Typical Construction Details Standard or typical plans must include all details necessary to construct the system at the size ranges and loading configurations desired for future consideration. Future project-specific shop plans will be checked against this set of pre-approved plans and details. Plans and details must also include:
 - a. Tolerances and limitations of standard sections.
 - b. Material specifications shown or noted on drawings.
 - c. Specifications for construction sequencing and performance testing.
 - d. Reference to current QMP (see below) and date.
2. Design Calculations, stamped by a California registered PE, including
 - a. One complete set of calculations demonstrating methodology used is in accordance with AASHTO LRFD Bridge Design Specifications and the current California amendments.
 - b. The engineer's contact information, computer software used (if applicable), equations, data sources, references and any testing of unique parts or pieces of the system not lending themselves to standard theoretical analysis.
 - c. Summary of full range of design heights and backfill configurations to be considered for future use.

3. System Evaluation and/or Product Testing, stamped by a California registered PE:
 - a. Testing procedure and results including data description of testing strategy and variables.
 - b. Testing shall demonstrate adequate performance and should be performed by a certified lab. ISO 17025 is an acceptable standard.
4. System Revisions. The Department must be notified of system design updates, improvements and revisions before they can be used on project work. Review for approval may be required prior to listing on the AML.

PART 3: Quality Management Plan

1. Description of How Materials will be Tracked and Records Retained, such as
 - a. Mill Certifications.
 - b. Certified Testing Reports.
 - c. Certificates of Compliance Template (System owner to include their certification, stamped by a Registered Engineer in the State of California, that each product is fabricated in compliance with its approved shop drawings, prior to shipment to the jobsite.)
2. Quality Control Plan for Fabrication, Production and/or Field Construction. This is a generalized plan. It must describe all inspection and testing including
 - a. Sources of materials.
 - b. Roles and responsibilities (Responsible parties for quality at each step, design, manufacturer/fabricator, contractors, etc.)
 - c. Frequency of inspection and testing for each product by the plant and system owner's representative [Plant is expected to perform QC* and system owner is expected to perform QV* at a lower frequency, the frequency necessary to provide a certificate of compliance].
 - d. The Department must be notified of major updates and revisions.
 - e. Quality Control Plans shall expire three years after date of approval.

NOTE: Do not include samples or specimens with the submittal package. You will be notified if/when samples are required.

Incomplete New Product Submittal Packages **will not be considered and will be discarded after 30 days.**

Terminology:

Quality Control (QC): All producer/vendor operational techniques and activities (process controls) that are performed or conducted to fulfill the contract requirements.

Quality Validation (QV): System owner's inspection and testing activities those are independent of quality control and are performed by system by system owner's representatives to validate the compliance with approved shop drawings.