5340000 CONCRETE SOUND BARRIERS
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Ray Haverty
414-41293
ray.haverty@dot.state.fl.us

Comment: (3-28-13)
The proposed new title of this “Section 534 Concrete Noise Walls”, I think this should be “Section 534 Concrete Noise Wall ”. The term walls is used through the specification sometime as “walls” and othertimes it is “wall”. I think it should be one way or the other.

Response: You are correct that both “wall” and “walls” are used. However, in the context that each are used, the terminology is correct.
No change made.

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Jeff Davis
352-397-5406
www.oldcastleprecast.com\duratek

Comment: (4-18-13)
We take no exception to the changes provided in the memorandum dated March 20, 2013 but propose the following additional changes:

(A) We would propose a robust review of the reasoning behind the current specification 534-5 Construction Methods, Part J, specifically, the required erection tolerances “Numbers 1 and 7a”. Reasoning: A requirement for installed posts “Variation from plumb +/- 1 / 4” / post height” and “variation from specified location + / - 1 / 2” we believe unfairly upholds the purported abilities of one specific competitor in the marketplace who owns patents for a specific steel template that is a protected improvement over all older and newer (through patent protection) templates used by other suppliers and installers. This degree of accuracy (both for 1 and 7a) is not needed or relevant for a Noise Wall using the standard drawings and methods of installation. In addition, it gives this competitor an opportunity to raise incredulous questions with QC personnel on projects installed by other suppliers; creating over-abundant scrutiny for tolerances specifically in these areas; with a presumed immunity to this type of scrutiny for their projects (as no other supplier would raise the question on a project they are no longer involved in). For these reasons, we request a re-discussion of the required tolerances for installed posts relative to location and plumb so as to reflect qualitative but reasonable values when considering that a Noise Wall is also considered an incidental concrete structure. We recommend changing this tolerance specification as follows: “Variation from plumb + / - 3/4“ over height of post “ to account for variances in manufacturing and installation of the posts in a manner consistent with intent; with no deleterious effects for the structure. “Variation from specified location + / - 2” “ to account for variances in drilling auger cast piles through various materials that can inadvertently change the center of the top of pile location while drilling…and therefore the location of the post when centered in the pile for the purpose of protecting the projection steel inside the foundation….but with no deleterious effects for the structure. We have had the experience of attempting to place posts (specifically on a curvature) while multiple layers of oversight check these tolerances with different means and methods. In one instance these methods included GPS surveying techniques that will generally produce check points outside of the tolerance given…especially when repeated by multiple survey crews. It is very cumbersome and costly when a company has

thousands of dollars of captive crew and equipment on site, while multiple QC cross-checks cannot come to an agreement as to whether a post is within tolerance or not. This argument stems from this very tight tolerance for “plumbness”; especially when consideration is given to the overall production tolerances for posts. “Over-abundant” scrutiny tends to create questions such as “if the post is within 1 / 2 “ of variation from the specified location but is 1 / 4 “ out of plumb (or simply 1 / 4 “ thicker at the top of the post) then is the post in tolerance or not”. One survey crew measures one point, another crew measures another point…etc…trying to verify this simple 1 / 4” tolerance. We believe that somewhat larger tolerances will impart no negative ramifications, but will allow all competitors to erect walls with confidence under standard specifications and produce an end product that FDOT will be proud of. At the very least there should be a discussion of how these tolerances are checked so that validity is standardized.

Response: Revisions to these tolerances will be considered. Any resulting changes will require further review by industry representatives; therefore, will not be part of this revision.
No change made.

(B) Specification 5340000 references Standard Index 5200. We recommend the following changes to this Standard Index:
(1) Sheet 1, Note K should be totally eliminated or re-worded to allow Cost Savings Initiatives or Alternative Technical Concepts to be used as long as aesthetic and structural requirements are met or exceeded.
Response: Agree. This note has been removed from the 2013 Design Standards, Index 5200.
No change made to the specification.

(2) Sheet 4, Section A-A, Section B-B, Sheet 5 Detail A, Sheet 7 Detail F-F and Detail B, and all other references to the back face (non-roadway side of panel) being of less thickness and quality than the front side of the panel should be modified to require that “the same quality and thickness of form liner finish is required for both sides of any panel finish”. a. Reasoning: A double sided form liner finish was promoted in the early days in Florida so as to benefit (at the time) a new, cheap technology which allowed “impressing” a finish on the back side of panels cast in flat tables. The finish created by this method would not stand up to scrutiny through the eyes of inspectors if compared to a more proper way to create a quality form liner finish using equipment that requires a more robust investment to create a much higher quality finish (vertically cast panels). We believe these notes give an unfair advantage to an inferior end product and should be modified to reflect the best practice in the industry today.

Response: Both flat cast and vertically cast wall panels will remain options; therefore, no change will be made.

(3) All references in specifications requiring a “broom finish” on the back face (non-roadway side of panel) should be modified to allow a “broom or smooth steel form finish” so that both flat-cast and vertically-cast panels can be produced with a finish that requires no form liners. Thank you for your kind consideration in this matter

Response: The surface finish is defined in the Data Tables which are completed by the EOR and included in the plans. The instructions for the Design Standards discusses this issue.
No change made to the specification.

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