



Comment Response Letter

August 28, 2022

Village of Pinecrest Building Department
12645 Pinecrest Parkway
Pinecrest, FL 33156

Attn: Mr. Javier Canizares
Project Address: 9841 SW 73rd Court, Pinecrest, FL 33156
Permit Number: **BL2022-1028**

Dear Mr. Canizares:

Please review this letter and supporting additional documents as part of the responses to the structural review comments to the above referenced project and completed on 07/26/2022.

Revision to the drawings will be clouded and identified with a delta 1 dated 08/26/2022. Please refer to the following comment and response section.

- 1) Provide special inspector letter for the following items:

- Soil compaction under slabs on grade.

Response: To be submitted by owner.

- 2) Wind calculation not legible.

Response: Refer to latest submittal. The resolution of the print was not favorable before since the calculation package needed to be less than allow by the website upload system.

- 3) 2nd floor overhang at master bedroom:

- Structural framing and reinforcement do not appear to be adequate. Isn't beam 2B-4 also needed at the front wall? What is the depth of beam 2B-4? (not shown in schedule). Where are the design calculations for 2B-4? Isn't there any beam supporting the North masonry wall? No top reinforcement for the slab perpendicular to beam 2B-2, between the beam 2B-4? Please be very careful with this area, submit detailed load path calculations and structural design for supporting members.

Response: Review missing original calculation set from pages 25 to 56 for the design of the slabs and main horizontal components. From pages 57 to 62 there is the design of T-beams supporting the area (2B-4) and the beam at front of wall is 2B-5. The depth of both beams were added to the beam schedule and see revised S-6.01. Yes, there is a beam supporting the North masonry wall, see updated 2nd floor plan. Reinforcement perpendicular to 2B-2 was added, see 2nd floor revised plan. Full calculations are submitted with proper load path and element design.

- 4) Hanger HU416 is not suitable for supporting roof trusses: It does not have an approved product (NOA or Florida approval) for connection directly to masonry, and it wider than the 2x roof truss. Provide approved alternative.

Response: Hanger was substituted by LGUM210-2 because it has a Florida Product (FL 13904) approval with connection to concrete. Please note that there are not instances in the project where any connector is installed to either grouted or hollow CMU. Flat trusses (roof or floor) are designed having the 2x in oriented flat rather than typical roof triangular trusses where the 2x is typically oriented in the strong axis.

- 5) Structural sections on S3.01: Provide minimum 1/2"/ft scale. Very poor and usable structural information. Show reinforcing for structural members in the correct location. Very few sections for



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a complex building like this is. Please refer to architectural section and check critical areas that deserve a structural section as well.

Response: Agreed. However, the sections on S3.01 are not intended to have a real detailing value, rather they guide the contractor to blow up details of the specific or complex details having real structural information.

- 6) Define pool deck. Concrete slab? If so, provide information.

Response: Refer to revised Ground floor plan S-1.01.

- 7) Provide roof diaphragm design; South wind will likely need diaphragm blocking.

Response: Refer to calculations sheet. The direction in questions is not controlling and the Length to Width ratio is 3 which is the permitted by the "Special Design Provisions for Wind and Seismic".

- 8) Provide complete set of structural calculations, including truss reactions and anchorage, masonry reinforcing, all structural beams and slabs, concrete stairs, foundation. Make sure to properly analyze the 2nd floor overhang (at master bedroom) and overhang entrance canopy.

Response: See attached.

Sincerely,

Jose E. Vila Alvarez, PE
Principal Structural Engineer
Vila Structural Consulting Engineers, Inc.