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(919)407-8663



Joshua Zinkan
Tar Heel Basement Systems
8005 Knightdale Blvd.
Knightdale, NC 27545

Re: Review of Proposed Foundation Repairs — 130 Edna John Court, Dunn, NC 28334

Mr. Zinkan,

At your request, Stonewall Structural Engineering (SSE) was consulted to review and provide recommendations for interior foundation repairs/replacements proposed by Tar Heel Basement Systems at the above referenced address. The purpose of the proposed foundation repair(s) is to address issues observed by Tar Heel Basement Systems while on-site March, 5 2025.

Conditions Evaluated

Based on the information provided by Tar Heel Basement Systems, we understand the subject structure to be a double wide manufactured home (see pictures 1-2). Indicators such as "left," "right," "front," and "back" are referenced as viewing the front of the home.



*Picture 1 – Front of Home
(130 Edna John Court, Dunn, NC 28334)*



Picture 2 – Typical Interior Foundation

The following foundation issues were observed by Tar Heel Basement Systems while on-site:

1. A total of seven (7) masonry piers were either significantly leaning, out of contact with the chassis beam, or had failed (see pictures 3-5).
 - a. Drainage concerns and evidence of soil erosion was noted in the crawlspace (see picture 6).

In order to address the foundation issues noted above, Tar Heel Basement Systems has proposed the following foundation repair(s):

1. Replace each of the leaning/failed masonry piers using an IntelliJack support.
2. A perimeter crawlspace drain.



Picture 3 – Leaning and Failed Foundation Elements



Picture 4 – Leaning Foundation Elements



Picture 5 – Pier out of Contact with Chassis Beam



Picture 6 – Evidence of Water Intrusion

Engineering Assessment and Recommendations

The failed foundation elements have likely been the result of the observed soil erosion.

Based on our review of the information provided, the proposed foundation repairs are recommended to be installed as follows:

1. Replace each of the failed/leaning foundation piers with an IntelliJack support on well-compacted 24"x24"x18" gravel footings. Jacks should be located at the same location of the currently failed piers.
 - Fasten the IntelliJacks to the Chassis beam using Simpson "XQ1S1214" Self-Tapping screws.
2. Install an in-ground drain along the inside perimeter of the foundation walls with discharge through the low point of the crawlspace to the exterior of the home and discharge at least 3' from the perimeter of the structure onto soils adequately sloped away from the home.

General Comments and Limitations

The determinations above were made in accordance with common engineering principles and the intent of the 2018 edition of the *North Carolina Residential Building Code*. Our review and assessment of the proposed foundation repair(s) was limited to the information provided by Tar Heel Basement Systems, and SSE was not consulted to visit the subject project site. As such, SSE is not liable for any issues arising beyond the scope of information provided to SSE. Should additional information become available, or if site conditions are found to vary from those reported, SSE is to be notified and consulted regarding possible impacts to the structure's integrity and/or the effectiveness of the recommendations presented.

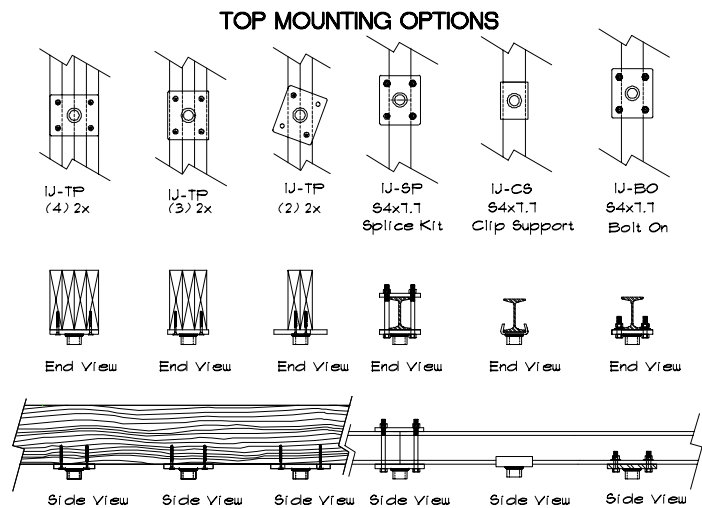
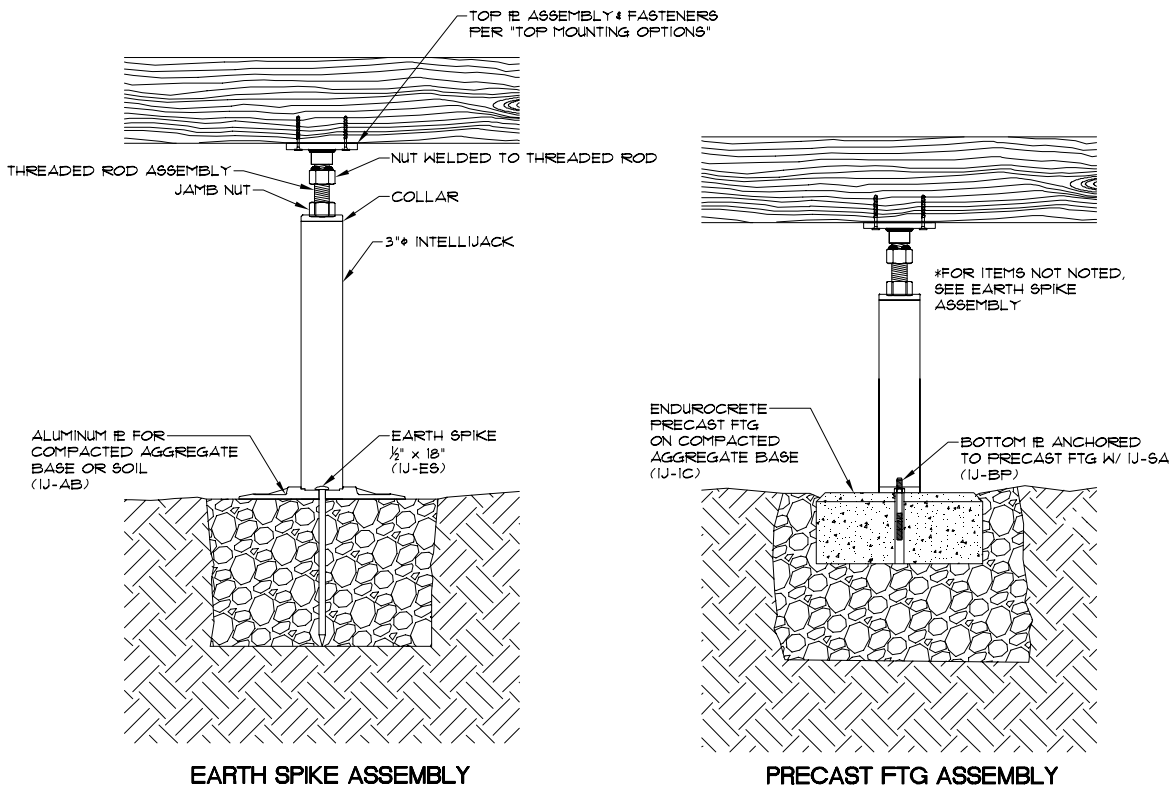
Sequencing, and means and methods of construction are considered to be beyond the scope of this report. A qualified contractor is to provide adequate temporary shoring prior to cutting or removing any structural load-bearing elements. All work is to conform to applicable provisions of current building standards. Please feel free to contact us should you have any questions or concerns regarding this matter.

Sincerely,
W. Harrison Welch, PE
Stonewall Structural Engineering, PLLC
Lic. #P-0951



03/17/2025

DETAIL ADDENDUM



Detail 1 – Typical IntelliJack Detail

CFI: Joshua Zinkan
Project: Crawlspace
Date: 5 March 2025
Homeowner: Beverly Stewart
Recommendations: Drainage and Jacks

All projects subject to permit/engineer approval

