

STRASS-MAGUIRE & ASSOCIATES, INC.

PROFESSIONAL ENGINEERS

6512 West Mequon Road • Mequon, WI 53092 • Ph: 262/242-5050 • F: 262/242-5055

Email: smengrs@sbcglobal.net • www.strass-maguire.com

October 3, 2017

Sam White
2682 N. Summit Avenue
Milwaukee, WI 53211

Re: Garage Inspection – 2682 N. Summit Avenue, Milwaukee, Wisconsin
Strass-Maguire & Associates Inc. Project No. 17-208

Dear Mr. White:

In accordance with your request, Strass-Maguire & Associates, Inc. has provided professional engineering services for evaluation of conditions of construction and performance of the detached garage for the residence at 2682 N. Summit Avenue in Milwaukee, Wisconsin. The purpose of this inspection was to evaluate the structural adequacy of the walls to enable recommendations for appropriate repair if required.

Scope Of Services:

The scope of the project is to visually observe the garage construction, and to provide recommendations regarding necessary immediate repairs. The inspection is limited to exposed, accessible, and visible portions of the walls, and floors. No attempt is made to move or remove materials of construction. No destructive or non-destructive testing is included in this scope of services. Opinions regarding the structure are based on limited observations without benefit of complete construction records and detailed history of all surveys, remodeling, or repairs. Since it would be cost prohibitive to remove portions of the structure to verify details and dimensions of construction, and this scope of services is limited, a thorough structural analysis of the structure is not undertaken.

To accomplish the described scope of services, we furnished the following professional engineering services for the above-mentioned project:

1. Observe interior and exterior of the garage.
2. Determine general magnitude of structural deflections or settlement by measuring representative and accessible portions of the structure.
3. Write report to describe observations and provide opinions regarding the condition of the garage. Recommend design of repairs or reinforcing of garage if found to be warranted.

Inspection:

Lavern L. Nall, P.E. of Strass-Maguire & Associates, Inc. performed a visual inspection of the subject garage on September 13, 2017. The following measurements were made and conditions observed:

1. The garage is detached from the residence and is of wood framed construction with exterior brick veneer wainscot with stone cap along the base of the wall. The garage floor is cast in place concrete.
2. The concrete floor pitches down from front entrance door to back permitting water to collect along the interior perimeter of the walls.
3. The exterior brick veneer on the sidewalls of the garage is extensively cracked.
4. The interior surfaces of the wood framed walls is finished with paneling. The walls are 2x4 wood framed and have exterior wood sheathing boards.
5. The interior surfaces of the walls exhibit decay continuously along the base. At one location the interior paneling is removed for inspection of the wood framing. The wall studs extend downward

below the level of the concrete floor to a wood sill plate apparently placed over a footing. The studs are severely decayed at the base together with the sill plate.

6. The exterior walls are out of plumb at most locations by an inch or more. The walls are mostly tipped out at the top.

Conclusions and Recommendations:

Based upon observations of conditions of construction we recommend that the following repairs and maintenance be performed to restore and maintain the structural adequacy garage walls. The recommended repairs are shown on the enclosed repair drawings S1.1 and S2.1. The drawings are signed and sealed for permit purposes.

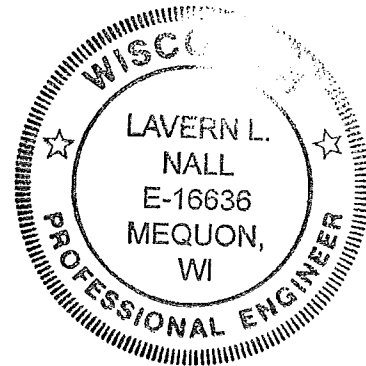
1. The concrete floor slab are to be removed and replaced and pitched to provide a minimum of 1/8" per foot slope to drain from the rear of the garage towards the garage door.
2. The decayed sill plates for the stud wall are to be removed and replaced with preservative treated wood. The decayed wood studs are to be repaired by sistering and ^{scrubbing} nailing new preservative treated wood studs to the existing studs.
3. Wood collar ties are to be added to tie rafters to prevent further outward displacement of the walls.
4. The brick veneer is to be reanchored to the replaced (sistered) 2x4 wood wall studs.

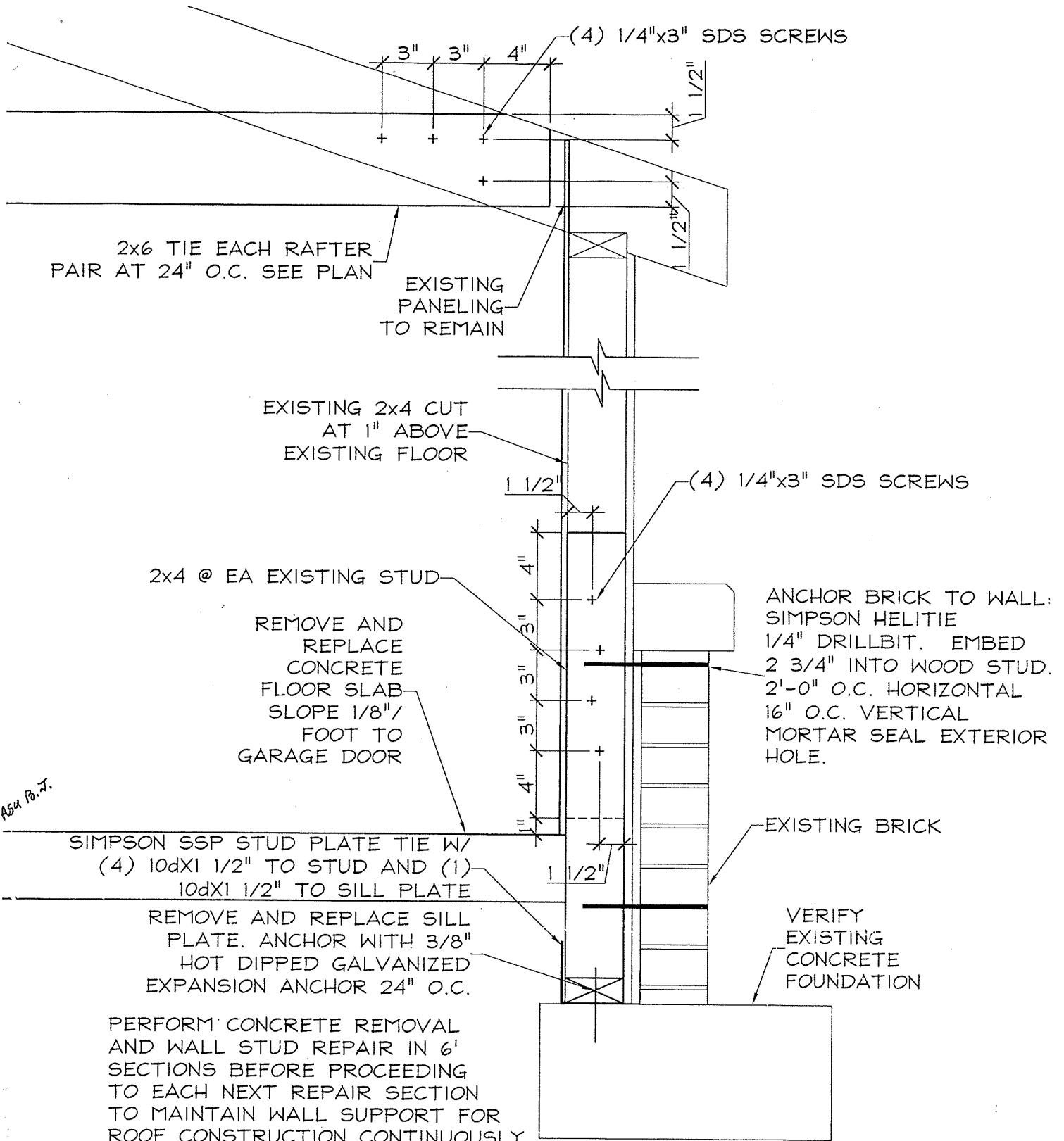
Sincerely,
Strass-Maguire & Associates, Inc.
Professional Engineers

Lavern L. Nall

Lavern L. Nall, P.E.
President

Encls: Drawings S1.1 and S2.1 dated October 3, 2017





As per B.T.

1 WALL SECTION
 S2.1 - SCALE: 1 1/2" = 1'-0"

ISSUE DATE: 10/03/2017
PROJECT NUMBER: 17-208
SHEET: S2.1

DRAWN BY: RJM	CHECKED BY: LLN
REVISIONS:	

GARAGE REPAIR

2682 N. SUMMIT AVE
MILWAUKEE, WISCONSIN

STRASS-MAGUIRE & ASSOCIATES, INC.
 CONSULTING PROFESSIONAL ENGINEERS

6512 West Mequon Road
 Mequon, WI 53092
 Phone: 262/242-5050
 Fax: 262/242/5055
 E-mail: smengrs@sbcglobal.net

• CIVIL
 • STRUCTURAL
 • INDUSTRIAL