Village of Altamont

Altamont, New York 12209

Structural Assessment Report
Crounse House Stabilization

January 2016

Barton & Loguidice

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Crounse House Stabilization

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Prepared For:

Village of Altamont
115 Main Street
P.O. Box 643
Altamont, New York 12209

Prepared By:

Barton & Loguidice, D.P.C.
10 Airline Drive
Albany, New York 12205

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1.0 Introduction

At the Village Board's request, Barton & Loguidice, D.P.C. (B&L), has completed a structural assessment of the historic Crounse House building located at 6305 Gun Club Road just outside the Village. The intent of the assessment is to document existing conditions to identify structural damage that has occurred as a result of deterioration, rot, and water damage; make general recommendations for work that would be necessary to stabilize the structure; provide an opinion of probable cost to stabilize the structure; and provide an opinion as to the practicality of restoring the structural integrity of the building.

The Crounse House is a two-story wood framed building, the main portion of the house originally constructed in 1833. The kitchen and summer kitchen Ell were added at a later time. The building is co-owned by the Village and the Town of Guilderland and is unoccupied.

This document summarizes B&L's observations of the building's interior and exterior structural elements of the building that were accessible and exposed to view during our January 8, 2016 site visit with Superintendent of Public Works, Jeff Moller. Further, recommendations regarding requirements to stabilize the structure and an opinion of the cost for its stabilization are presented.

2.0 Existing Building Construction

The building is a two-story structure with a peaked roof and full basement below the primary residence (south portion). The primary residence consists of a first floor living room, dining room and den. The second floor of the primary residence consists of two (2) bedrooms and a bathroom. A crawl space is located below the kitchen and pantry areas (northern portion of the structure). The second level above the kitchen consists of two (2) storage rooms. The northeast portion of the structure consists of an attached porch structure, a summer kitchen, hallway and potting shed. The front of the building faces south and fronts NYS Route 146 **(see attached photograph #1)**. The back of the building faces west (**see attached photograph #3)**.

2.1 Foundation Construction

The foundation construction is laid-up stone that is exposed on the interior walls of the primary structure. The foundation also acts as a retaining wall and resists full height of soil load on the south, east, and west sides of the primary building structure. A crawl space is beneath the first floor level of the kitchen, pantry, and summer kitchen.

2.2 Wall and Floor Construction

The wall and floor construction consists of wood joists and wood studs. From what we could determine, the roof is supported by the north and south exterior walls; the second floor of the primary structure is supported by interior framing that transfers the load vertically to the lower levels. The first floor level support consists of a combination of solid timber posts and timber beams. Several steel beams were added in the basement to assist in supporting the first floor.

2.3 Roof Construction

The shingled roof is peaked and generally slopes north-south **(see attached photograph #2)**. The roof is supported by 4x timber rafters with planking spanning continuous over the rafters. Several steel tie rods with turn buckles were added to provide stability to the roof framing system **(see attached photographs #11 and #12)**. Due limited accessibility, a detailed inspection of the roof covering was not possible.

3.0 Observed Areas of Structural Deterioration

The primary residence building is generally in fair to poor condition. This is attributed to the open areas and roof leaks allowing water to infiltrate the building causing damage to the structure and finishes, including extensive rot of structural elements. The attached porch, summer kitchen EII, laundry, hallway, and potting shed are partially to completely collapsed **(see attached photographs #3 and #4)**. We did not access these areas to perform a detailed inspection of the structure as it is unsafe.

3.1 Foundation Condition

The exposed stone foundation wall has shifted and settled. The base of the south wall has bowed outward as the wood sill plate has rotted and is providing little to no support **(see attached photographs #5 and #6)**. The majority of the mortar joints are loose however the walls below the sill plate are generally plumb and appear to be functioning as intended.

3.2 Wall and Floor Conditions

The interior surfaces of the walls in the primary residence are painted lath and plaster.

The floors are covered with a combination of wood flooring and tile. The kitchen ceiling is severely deteriorated and rotted due to excessive water damage **(see attached photographs #7 and #8)**. With this condition the ceiling/second floor of the storage rooms is structurally unsound and near collapse. Wall framing above the summer kitchen has deteriorated and collapsed leaving areas of the second floor open to the outside elements **(see attached photograph #9)**. Second level floor areas in the primary residence are sagging due to age and possible rot below the floor **(see attached photograph #10)**.

3.3 Roof Condition

Active roof leaks were noted; however, there is limited evidence of large scale leaks in the attic area. Areas of the second floor bedroom ceiling show significant signs of water damage and rot **(see attached photographs #11 and #12)**.

4.0 Building Structural Condition Summary

Overall the structural condition of the building is generally poor; showing signs of long-term deterioration, water damage, rot, and areas of significant structural distress. Removing the collapsed portion of the structure and maintaining the primary structure is a possibility as the major areas in need of repair are the storage room floors above the kitchen and pantry and a portion of a ceiling in one of the bedrooms.

4.1 Demolition of Collapsed Structures and Reinforce Primary Residence

The Village had previously requested bids from contractors to completely demolish the collapsed portions to 12-inches below finish grade, remove from the site and backfill the collapsed summer kitchen EII, porch, hall, laundry, and potting shed. The repair scope also included securing, replacing and/or reinforcing rotted and deteriorated structural members in the kitchen ceiling of the primary residence and installing a new metal roofing system (29 gauge or heavier, pre-finished roofing panels, vented metal ridge and eave trim, metal flashing at all penetrations). Reinforcing existing structural members would involve “sistering” new rafters to existing and establishing new bearing at framing supports. The re-built roof would match the plane of the adjacent roof to the extent possible. Existing foundations, frost walls, and sill plates would need to be repaired as part of the structural stabilization work.

In addition, we recommend a water damaged area of the second floor bedroom ceiling be repaired. Prior to installing the new metal roofing system, the existing asbestos containing material (ACM) roofing material needs to be removed by a NYSDOL licensed asbestos abatement contractor. The opinion of probable construction cost for this work is $52,900. Generally the work includes asbestos survey, asbestos abatement and air monitoring, structural inspection, additional structural reinforcement, re-formatting existing bid documents for public bids and the low quote received by the Village. The opinion of probable cost does not include structural engineering necessary for reinforcing the primary residence.

4.2 Rebuild Kitchen Structure and Reinforce Primary Residence

This option is for the complete demolition and removal of the collapsed structures from the site, complete ACM abatement, repair of frost walls and foundation walls, new wood framing (identified deterioration and support), exterior finishes (siding, doors and windows) , repair existing joists and floor supports and new metal roofing system. The opinion of probable construction cost for this work is $112,000. The cost excludes interior finishes, furnishings, plumbing, mechanical and electrical systems and items. Retrofit of the building

for occupancy will require substantial work beyond this cost of stabilization. The specific requirements and cost will depend on the anticipated occupancy use.

Opinion of probable construction costs provided include a single prime contract, New York State Prevailing Wage Rates, 10-percent for contractor's overhead, 10-percent for contractor's profit, and 5-percent for contingencies.

In advance of any shoring and/or reconstruction work we recommend that the Village Board take the appropriate action to secure the building at all doorways and windows preventing access by minors under 18 years of age, as well as vagrants and other trespassers.

Appendix A

Photographs

PHOTO VIEW: 1 - South Wall Exterior Elevation - Frontage on State Route 146

COMMENTS: Rot and water damage around windows, eave and at roof level.
Structure is not properly secured at doorway and windows.

PHOTO VIEW: 2 - East Wall Exterior Elevation

COMMENTS: Rot and water damage at roof line.
Structure is not properly secured at windows.

PHOTO VIEW: **3 - North Wall Exterior Elevation**

COMMENTS: Proch roof sagging and near collapse, water damge and rot at roof level.
Structure is not properly secured at doorway and windows.

PHOTO VIEW: **4 - Collapsed Structure - Potting Shed and Summer Kitchen**

COMMENTS: Collapsed Framing and Roof.

PHOTO VIEW: **5 - Foundation Wall**
COMMENTS: Separation in foundation stones, rot and water damate to sill plate.

PHOTO VIEW: **6 - Foundation Wall**
COMMENTS: Bowing outward at base of wall, rot and water damage to wood sill plate.

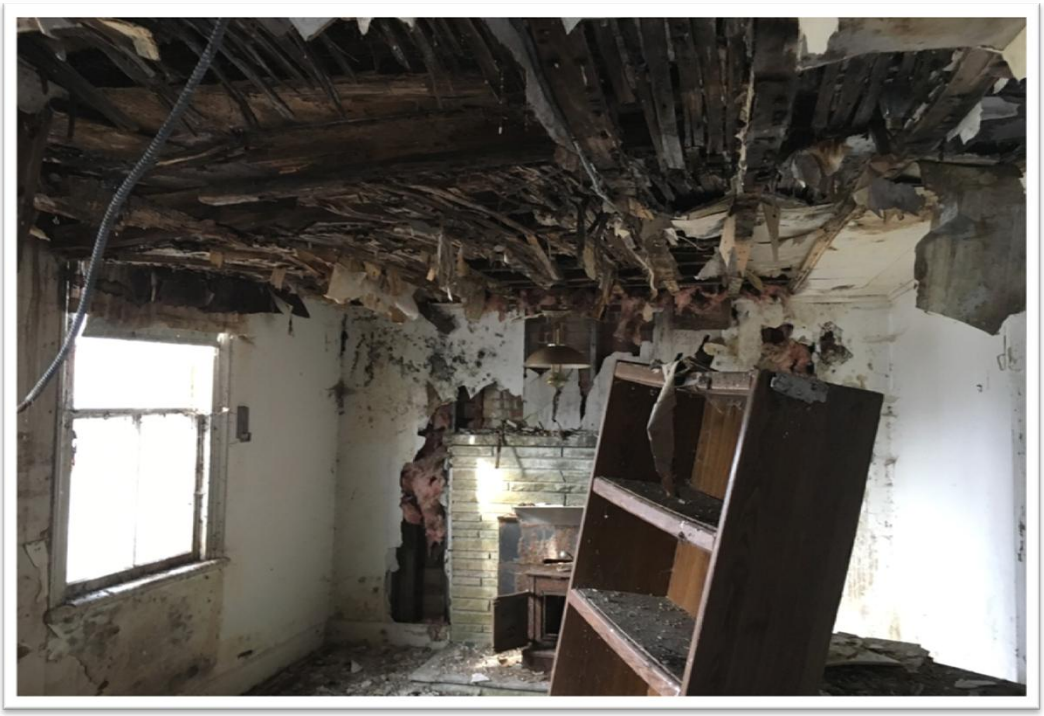

PHOTO VIEW: **7 - Kitchen Area**
COMMENTS: Water damage and rot to second floor framing - near collapse.

PHOTO VIEW: **8 - Kitchen Area**
COMMENTS: Water damage and rot to second floor support framing.

PHOTO VIEW: **9 - Second Floor Above Summer Kitchen**
COMMENTS: Exterior wall - open to outside elements and near collapse.

PHOTO VIEW: **10 - Second Floor**
COMMENTS: Sagging floor boards, poor support.

PHOTO VIEW: **11 - Second Floor Bedroom**
COMMENTS: Excessive water damage and rot - near collapse.

PHOTO VIEW: **12 - Second Floor Bedroom**
COMMENTS: Sagging lath board ceiling.

PHOTO VIEW: **13 - Attic Area - Roof Rafters**
COMMENTS: Tie rods, roof leaks - water damag to floor.

PHOTO VIEW: **14 - Attic Area - Roof Rafters**
COMMENTS:

Appendix B

Crounse House Floor Plans

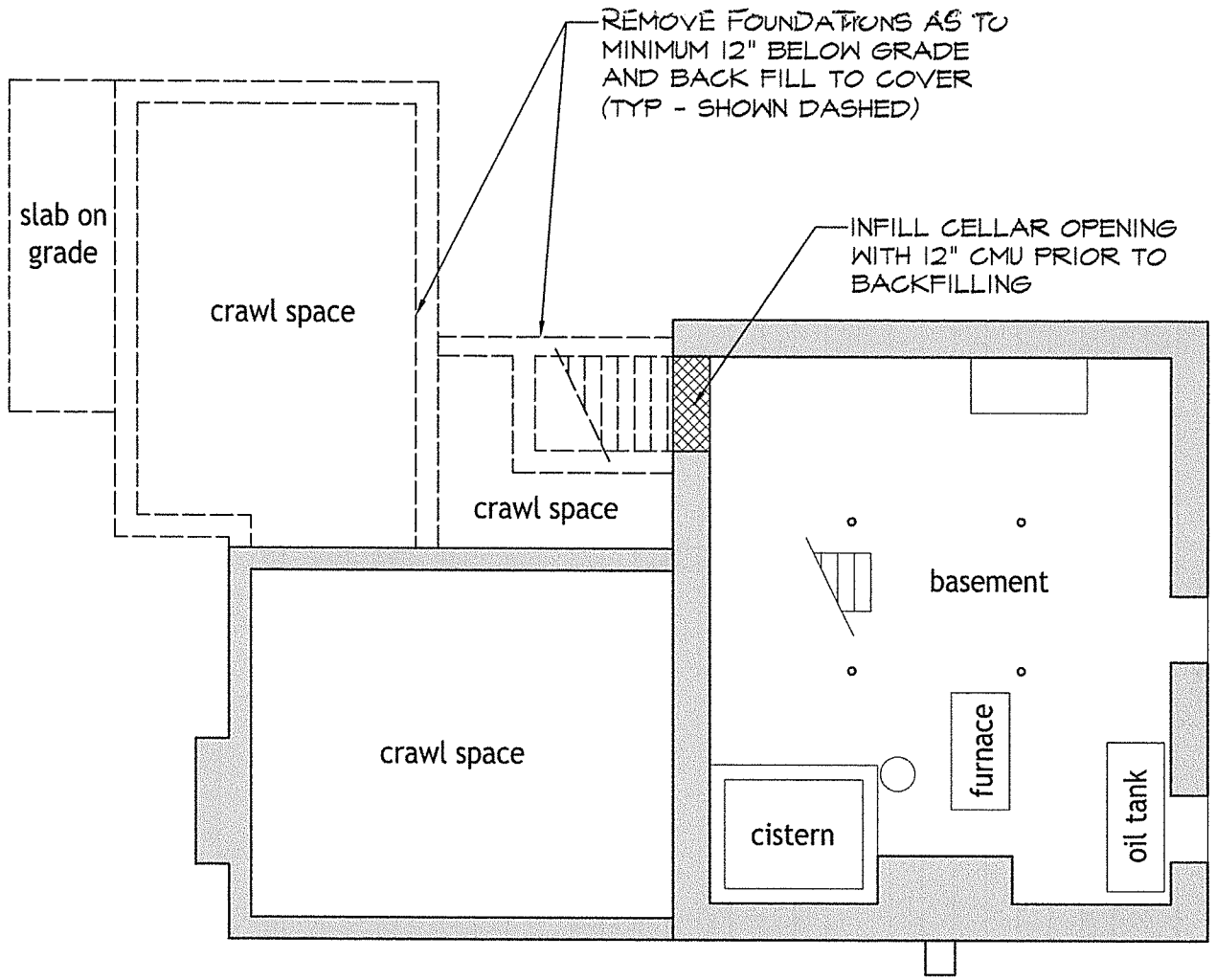

Figure 1

Dr. Crounse Residence
Basement Removals Plan
1/8" = 1'-0"

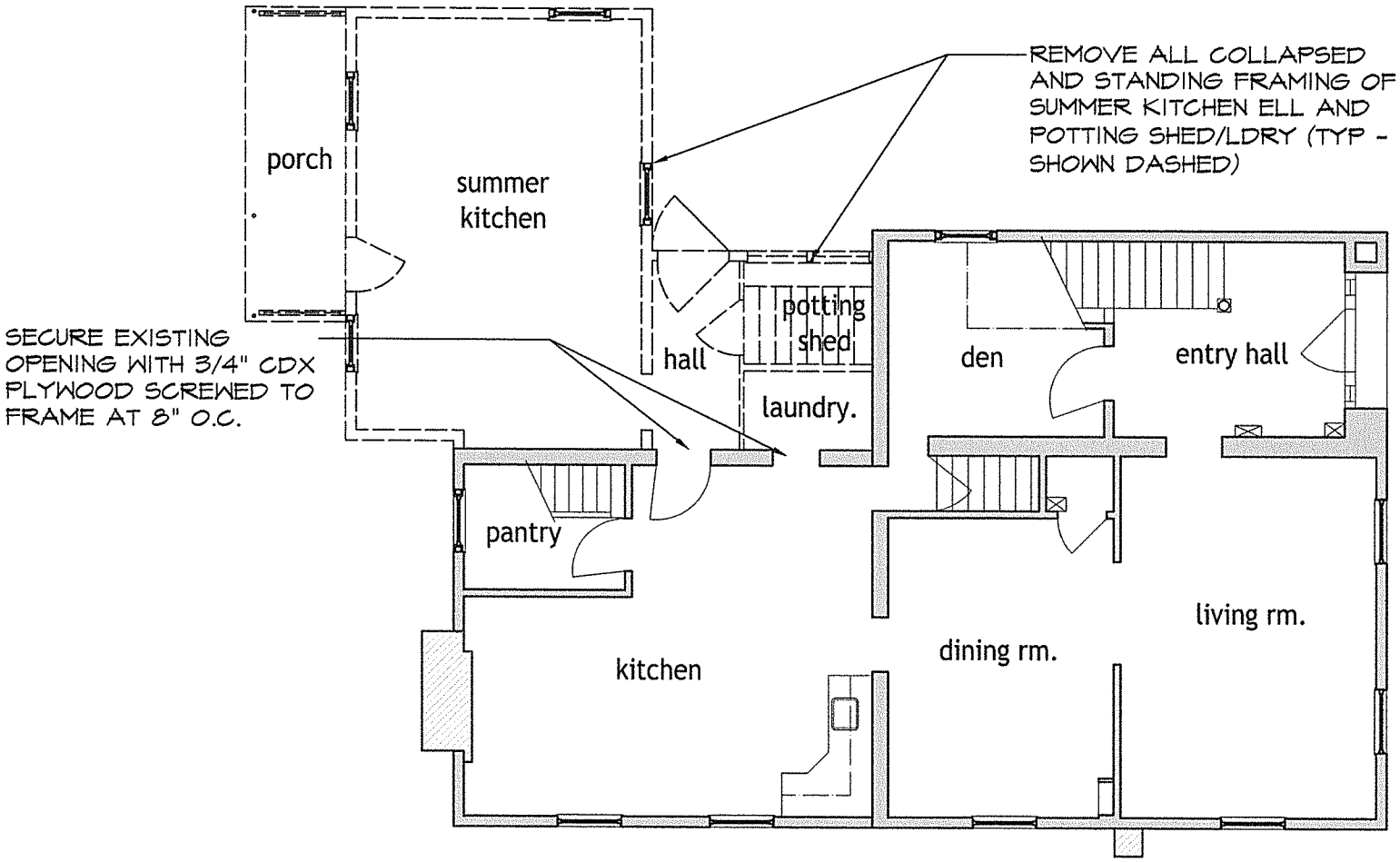

Figure 2

Dr. Crounse Residence

First Floor Removals Plan

1/8" = 1'-0"

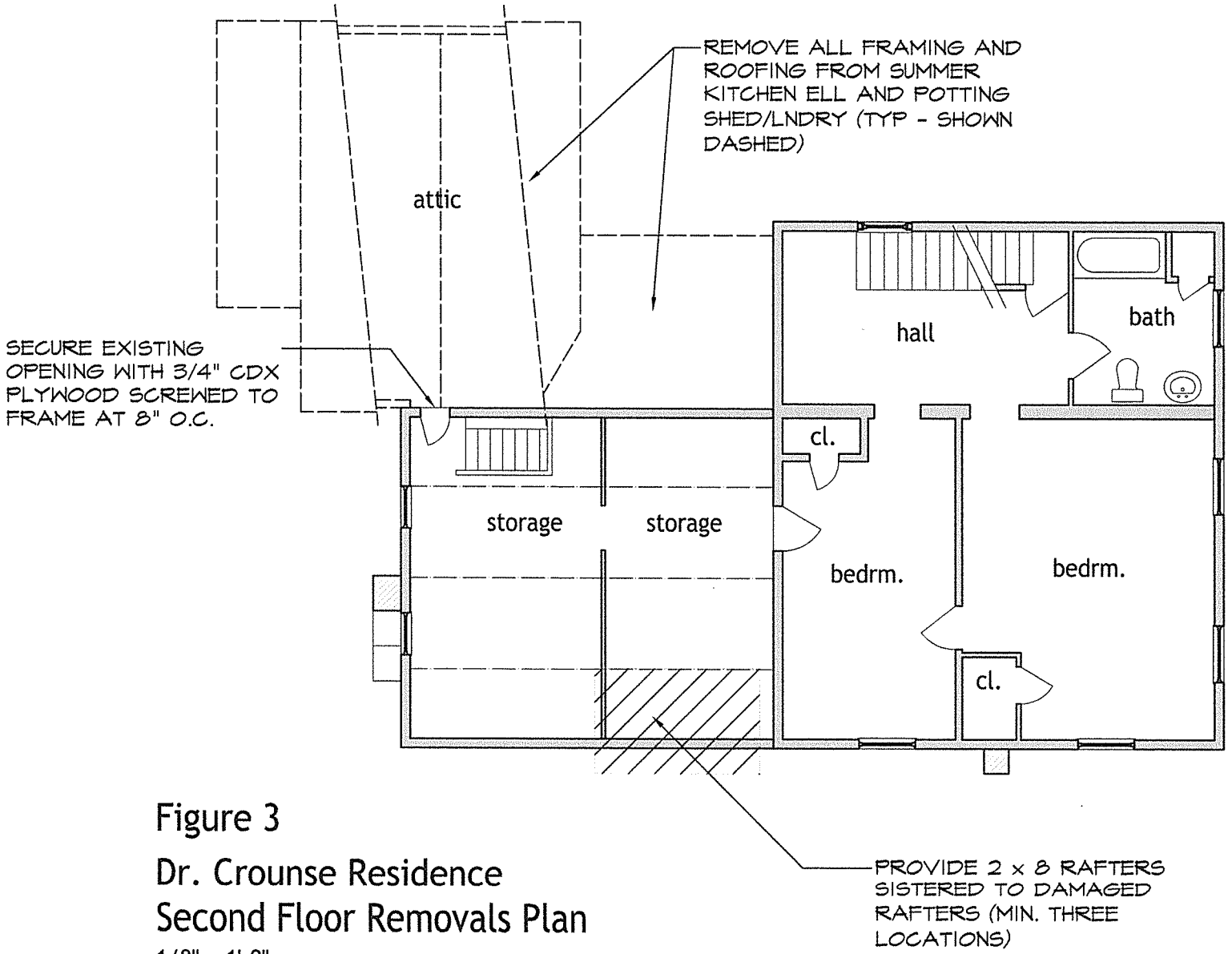

Figure 3

Dr. Crounse Residence
Second Floor Removals Plan
1/8" = 1'-0"

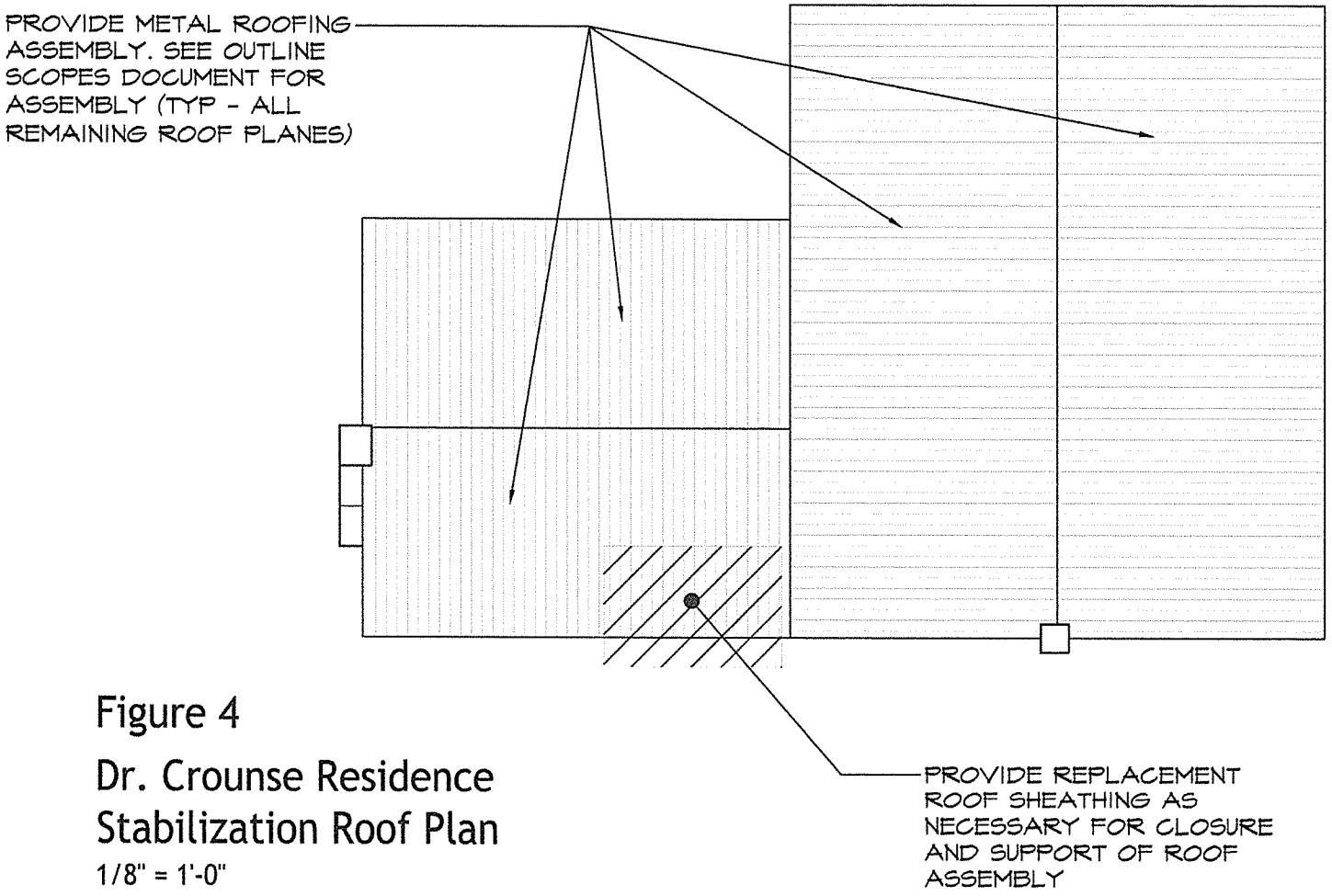

Figure 4

Dr. Crounse Residence
Stabilization Roof Plan

1/8" = 1'-0"