



MICHAEL PLICKYS, P.E.
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MACCHI ENGINEERS, LLC

Diversified Structural and Civil Engineering Services

September 27, 2021

Mr. Robert Kelly
4 Jacobs Hill Road
Ellington, CT 06029

Re: Visual Foundation Inspection
4 Jacobs Hill Road
Ellington, CT

Dear Robert,

Pursuant to your request, on 9/13/21, Macchi Engineers conducted a cursory visual inspection of the exterior foundation walls at the above referenced property. The purpose of our inspection was to evaluate the general overall condition of the exposed concrete surfaces and to provide opinions on the possible causes of any cracking observed in the basement walls and slabs on grade. No finishes were removed during our inspection therefore only those areas that were exposed to view were inspected. In addition, no core testing was performed. The existing home is a two story structure with an attached 2-car garage. See Photo 1.

Enclosed please find the GIS data for the property:

House Data:

Current Owners:	Robert Kelly & Marcia Bevin
Structure Type:	Colonial
Date of Construction:	1995
Type of Basement:	Primarily Finished
Site:	Front Slopes Toward, Rear Slopes Away
Roof Drainage:	Downspouts Piped to Grade
Site Drainage:	No Standing Water Present
Landscaping:	Average Landscaping

At the time of our inspection, the basement was found to be primarily finished. Exposed concrete was found in mechanical/storage areas. During our inspection of the interior concrete basement walls, we observed a number of cracks and some efflorescence along portions of the interior basement walls. See Photos 2 thru 5. With the exception of the efflorescence, no significant moisture infiltration was observed at the time of our inspection.

The exterior foundation wall faces were found to be in good overall condition. However, several map like cracks were observed along portions of the west side of the garage. See Photos 6 & 7.

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Conclusions:

The hairline horizontal and map type cracking that was observed along portions of the exterior foundation wall surfaces is consistent with the oxidation and expansion of deleterious pyrrhotite. As you indicated, this is consistent with the information you provided that the concrete used to construct the foundation came from JJ Mottes. At this time we do not recommend further testing.

At present, the cracking observed in your foundation walls is not a structural concern. At the time of our inspection, we did not observe any significant vertical or lateral movements in the foundation walls and there didn't appear to be any signs of structural distress in the timber framed floors or wall framing. If the foundation walls are to remain for a prolonged period of time, we recommend that every effort be made to divert water away from the basement walls. This includes extending downspouts and improving drainage. We recommend that you visually monitor the cracks on a regular basis to determine whether they are increasing in frequency and width. Should any large cracks develop or noticeable movements occur, we recommend that you contact a structural engineer immediately. We do not recommend patching the existing cracks since it is ineffective in preventing further cracking.

Moving forward, we recommend you undertake the following steps:

1. The State of Connecticut has programs available to reimburse the engineering inspection costs up to a maximum of \$400. More information on the testing reimbursements can be found at the following web sites:

www.foundationtesting.org

www.foundationtesting.org/forms/new

2. Contact your current homeowner insurance carrier and inform them that your foundation has cracking and deterioration associated with pyrrhotite oxidation. Ultimately you will need to receive written confirmation from your carrier that they will not cover your claim. This letter is required for state reimbursement for foundation replacement.
3. Contact the Town of Ellington's Assessor's Office to determine the necessary steps to apply for property tax relief. The requirements vary from town to town.
4. The State of Connecticut has established a \$100 million insurance fund (\$20 million/year over 5 years) to assist homeowners with foundation replacement. This fund will be overseen by the Connecticut Foundations Solutions Indemnity Company, LLC (CFSIC). We recommend you begin the process of submitting the required paper work to CFSIC. Information on CFSIC participation guidelines can be found at the following address:

<https://crumblingfoundations.org>

In conformance with CFSIC's requirements and guidelines concerning foundation replacement reimbursement, it is our opinion that your foundation meets the following criteria:

Mr. Robert Kelly
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Claim Severity

Class 2

Explanation and information concerning severity classes can be found at the following web site:

<https://crumblingfoundations.org/homeowner-information/>

The opinions indicated in this report are based on training and experience and visual inspections of exposed areas only. We reserve the right to amend these findings should additional information become available.

If you have any questions or need any additional information, please give me a call.

Yours truly,
MACCHI ENGINEERS, LLC



MICHAEL PLICKYS, P.E.
Principal in Charge



Encl.

4 JACOBS HILL RD**Location** 4 JACOBS HILL RD**Mblu** 172/ 001/ 0003/ 1**Acct#** 00468503**Owner** KELLY ROBERT J 4/5 + BEVIN
MARCIA 1/5**Assessment** \$198,110**Appraisal** \$283,000**PID** 5364**Current Value**

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$193,560	\$89,440	\$283,000
Assessment			
Valuation Year	Improvements	Land	Total
2018	\$135,500	\$62,610	\$198,110

Owner of Record**Owner** KELLY ROBERT J 4/5 + BEVIN MARCIA 1/5**Sale Price** \$0**Co-Owner****Book & Page** 357/ 856**Address** 4 JACOBS HILL RD
ELLINGTON, CT 06029**Sale Date** 09/01/2005**Ownership History**

Ownership History			
Owner	Sale Price	Book & Page	Sale Date
KELLY ROBERT J 4/5 + BEVIN MARCIA 1/5	\$0	357/ 856	09/01/2005
KELLY ROBERT J	\$0	312/ 199	06/02/2003
KELLY ROBERT J + LAURA C	\$46,000	212/ 736	10/26/1994
JACOBS HILL ASSOCIATES INC	\$0	194/ 44	10/07/1992

Building Information**Building 1 : Section 1**

Year Built: 1995
Living Area: 1,632
Replacement Cost: \$202,282
Building Percent Good: 85
Replacement Cost
Less Depreciation: \$171,940

Building Attributes

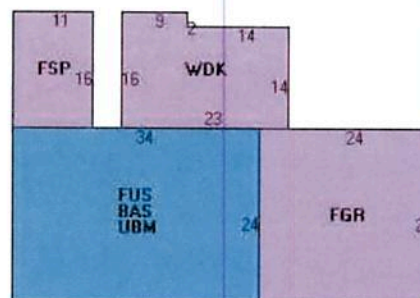
Field	Description
Style	Colonial
Model	Residential
Grade:	C+
Stories:	2.0
Occupancy	1
Exterior Wall A	Vinyl Siding
Exterior Wall B	
Roof Structure:	Gable
Roof Cover	Asphalt
Interior Wall A	Drywall
Interior Wall B	
Interior Flr A	Hardwood
Interior Flr B	Carpet
Heat Fuel	Oil
Heat Type:	Forced Air
AC Type:	Central
Total Bedrooms:	3 Bedrooms
Total Bthrms:	1
Total Half Baths:	2
Total Xtra Fixtrs:	1
Total Rooms:	7
Bath Style:	Average
Kitchen Style:	Average
Fireplaces	
Gas Fireplaces	
Fin Bsmnt	600
Fin Bsmnt Qual	Finished Basem
Attic Entry	Scuttle
Bsmnt Garages	

Building Photo



(<http://images.vgsi.com/photos2/EllingtonCTPhotos/A00\03\53\01.jpg>)

Building Layout



North

(http://images.vgsi.com/photos2/EllingtonCTPhotos/Sketches/5364_5364.j)

Building Sub-Areas (sq ft)			Legend	
Code	Description	Gross Area	Living Area	
BAS	First Floor	816	816	
FUS	Finished Upper Story	816	816	
FGR	Garage	576	0	
FSP	Screen Porch	176	0	
UBM	Basement	816	0	
WDK	Wood Deck	340	0	
		3,540	1,632	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Land Line Valuation

Use Code 1010
Description Primary Homesite
Zone RAR
Neighborhood R60
Alt Land Appr No
Category

Size (Acres) 1.03
Frontage
Depth
Assessed Value \$62,610
Appraised Value \$89,440

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Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
SHD1	Shed			64 S.F.	\$380	1
SPL2	Pool- Inground Vinyl			800 S.F.	\$17,480	1
PAT1	Patio-Ave			1253 S.F.	\$3,760	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$189,800	\$89,440	\$279,240
2016	\$189,800	\$89,440	\$279,240
2015	\$189,800	\$89,440	\$279,240

Assessment			
Valuation Year	Improvements	Land	Total
2017	\$132,870	\$62,610	\$195,480
2016	\$132,870	\$62,610	\$195,480
2015	\$132,870	\$62,610	\$195,480