

QUESTIONS? Call or email us!

Town of Chapel Hill Office of Planning and Sustainability

Development Services919-969-5066 planning@townofchapelhill.org

Chapel Hill Historic District	Project:	18-126
Certificate of Appropriateness Application		
Project Description: Replacement and Repair of Fire Escapes at 233 & 235 McCauley Street	Permit:	
		STAFF REVIEW
	Applicat	ion complete and accepted
		ion not complete and ith a notation of deficiencies
	BY: Beck 12/12	y McDonnell 2/18

Instructions: Submit one paper copy and a digital copy of all application materials collated in one file (pdf preferred)

Deadlines: Applications are due by the close of business 30 calendar days prior to the scheduled meeting date.

Note:Only complete applications may be accepted for Certificate of Appropriateness review. Applications that are not complete will be returned with a notation of deficiencies.



QUESTIONS? Call or email us!

Town of Chapel Hill Office of Planning and Sustainability

Development Services919-969-5066 planning@townofchapelhill.org

A: Property Information		
Property Address: 233 & 235 McCauley St	reet	Parcel ID Number: See Attached
Property Owner(s): See Attached		Email: See Attached
Property Owner Address: See Attached		
City: See Attached State: SA	Zip: SA	Phone: See Attached
Historic District:X Cameron-McCauley ☐ Franklin-F	Rosemary □Gimgho	ul Zoning District: D
B: Applicant Information		
Applicant: Gregory A. Robinson, P.E.	A Sec.	Role (owner, Engineer architect, other):
Address (if different from above): 6512 Six Forks Ro	oad, Suite 403A	
City: Raleigh State:	NC Zip:	27615
Email: greg@gar-pe.com		Phone: 9198464752
		3130404/32
C. Application Type (check all boxes that apply	<i>'</i>)	《 》 《
☐ Minor Work Exterior works that do not involve an		
		See <u>Design Guidelines</u> (p. 69) for a list of minor works.
XHistoric District Commission Review Includes all ex	xterior changes to str	ructures and features other than minor works
☐ Site-work only (walkways, fencing, walls, etc.)	☐ After-the-fact ap	pplication (for unauthorized work already performed).
XRestoration or alteration	☐Demolition or m	noving of a site feature.
☐ New construction or additions	☐ Request for revi	ew of new application after previous denial
□Sign		

D. Basic information about size, scale, and lot placement.

Provide measurements in feet and square feet where applicable. Where possible, please provide accurate measurements from a licensed surveyor, architect, engineer, etc. If exact measurements are not available, please provide estimated information. Current estimated information about lots and buildings can be found on the Ocupy Real Estate Data website. Information about lot placement can be found on the Chapel Hill and Ocunty Interactive GIS portals.

Zoning District:	Minimum setbacks	Maximum heights	Lot size
	9		



Town of Chapel Hill Office of Planning and Sustainability

QUESTIONS? Call or email us! Development Services919-969-5066 planning@townofchapelhill.org

	Street	Interior	Solar	Primary	Secondary		
Required by zoning	NA	NA	NA	NA	NA		
Proposed	NA	NA	NA	NA	NA		
	Existing	Change +/-	Total	Total Flo	or Area Ratio		
Floor Area (main structure)	NA	NA	NA	Existing	Proposed	ISA/	NLA ratio
Floor Area (all other)	NA	NA	NA	NA	NA	Existing	Proposed
Impervious Surface Area (ISA)	NA	NA	NA	NA	NA	NA	NA
New Land Disturbance			NA				

E: Applicable Design Guidelines

The Town's <u>Design Guidelines for the Chapel Hill Historic Districts</u> are integral to the application and review process. These guidelines supplement the required review criteria for Certificate of Appropriateness applications (provided in <u>Section 3.6.2(e)(4)</u> of the Land Use Management Ordinance) by providing detailed, practical considerations for how to make changes to properties while preserving the special character of their Historic District context. Please review the Design Guidelines and consider their applicability to your proposed project. (Attach additional sheets, as necessary.)

Section/Page	Topic	Brief description of the applicable aspect of your proposal
See Attached		



Town of Chapel Hill Office of Planning and Sustainability Development Services919-969-5066 planning@townofchapelhill.org

QUESTIONS? Call or email us!

F. Checklist of Application Materials					
TO E COM BY		CHED? E PLETED		E COMPLE TOWN STA	
	YES	N/A	YES	N/A	NO
1. Written description of physical changes proposed. Describe clearly and in detail the physical changes you are proposing to make. Identify the materials to be used (siding, windows, trim, roofing, pavements, decking, fencing, light fixtures, etc.), specify their dimensions, and provide names of manufacturers, model numbers, and specifications where applicable.	\boxtimes				
2. History, context, and character information. Please include a summary of what information you have relied on to understand the relevant character and history of the district and subject property—and briefly summarize that information. At a minimum, include:	\boxtimes				
 Current property information for the lot and all structures, including Building Sketches and Building Details, from <u>Orange County Real Estate</u> <u>Data</u>. 					
☐ The entry of your property on the most recent inventory of historic resources in the relevant National Register for Historic Places filing, available via the NC State Historic Preservation Office website: for McCauley-Cameron see West Chapel Hill , for Franklin-Rosemary see Chapel Hill Historic District , for Gimghoul see Gimghoul . (If yours is one of the few properties in McCauley-Cameron or Franklin-Rosemary that has not yet been inventoried, please indicate that.)					
3. Justification of appropriateness. Attach an annotated statement explaining how the proposed change(s) meets the following standards of appropriateness that the Commission considers in making findings of fact indicating the extent to which the application is or is not congruous with the historic aspects of the historic district. If a standard is not applicable, type "not applicable".					
 A. The height of the building in relation to the average height of the nearest adjacent and opposite buildings. B. The setback and placement on lot of the building in relation to the average setback and placement of the nearest adjacent and opposite buildings. C. Exterior construction materials, including texture and pattern. D. Architectural detailing, such as lintels, cornices, brick bond, and foundation materials. E. Roof shapes, forms, and materials. F. Proportion, shape, positioning and location, pattern, and size of any elements of fenestration. G. General form and proportions of buildings and structures. H. Appurtenant fixtures and other features such as lighting. I. Structural conditions and soundness. 					



Town of Chapel Hill Office of Planning and Sustainability Development Services919-969-5066 planning@townofchapelhill.org

QUESTIONS? Call or email us!

J. Architectural scale.			
4. Photographs of existing conditions are required. Minimum image size 4" x 6" as printed or the digital equivalent. Maximum 2 images per page.			
5. Site Plan Set showing existing and proposed conditions. (Min. scale: 1 in. = 20 ft.)	1_		
Site plans must show the relationships between, and dimensions of, existing and proposed buildings, additions, sidewalks, walls, fences, driveways, and/or other structures on the property, as well as property lines and applicable zoning setbacks.			
☐ Include both written and drawn scales and show accurate measurements. You may also use a copy of a survey with surveyor's seal deleted. Revise the copy as needed to show existing conditions and your proposed work.			20 10 10 10 10 10 10 10 10 10 10 10 10 10
☐ Indicate the area of all structural footprints (existing and proposed) in square feet; also, indicate lot size in square feet.			
6. Elevation Drawings showing existing structural facades and proposed changes. Drawings should be submitted as 11" x 17" or 8-1/2" x 11" reductions of full-size drawings. All details should be reasonably legible. Photographs are okay for facades with no changes.			
☐ Elevation drawings showing all proposed changes above current grade from front, back, and both sides.			
Include scale bar, written scale, and label major dimensions (including width of structures and heights from finished grade to fascia/eaves and heights to top of roofs).			
$\ \square$ Label materials to be used (roofing, siding, windows, trim, light fixtures, etc.)			
7. Information about context (required for all construction of new structures, proposed impervious surfaces greater than 1500 SF, additions greater than 150 SF, and/or proposed land disturbance greater than 5000 SF.) Detailed information about lots and structures can be found on the Orange County Real Estate Data website; information about lot placement can be found on the Chapel Hill and Orange County GIS portals.			
For each of the nearest adjacent and opposite properties, provide:			
\square The height of each building (if an estimate, indicate that).			
☐ The setbacks and lots placement of each building (an image from the Town GIS database, including scale, is sufficient).			
\square The size of each lot (net land area in square feet).			
☐ The size of all buildings on the nearest adjacent and opposite properties, including building footprint areas, Floor Areas (in square feet), and Floor Area Ratios. Provide current figures from Orange County Real Estate Data; indicate any corrections for accuracy you believe necessary and your basis for doing so.			
8. Demolition/Relocation Information (required only if demolition or relocation of a feature is proposed).			
☐ Provide a written description of architectural features, additions,			



Town of Chapel Hill Office of Planning and Sustainability Development Services919-969-5066 planning@townofchapelhill.org

QUESTIONS? Call or email us!

remodeling, and any alterations to the structure (outbuildings on the site plan of the property.	s). Make note of any			
☐ Provide a history of the structure, giving the const or carpenter, briefly noting any significant events associated with the property. Provide current ext property (4" x 6" as printed or the digital equivale unknown, please provide a summary of sources of	, persons and/or families erior photographs of the ent). If information is			
If an argument about structural soundness is beir and sealed report from a professional engineer.	ng made, attach a signed			
 As necessary, attach a statement explaining how would cause the property owner to suffer extrem permanently deprived of all beneficial use or retu virtue of the delay. Provide any records about the structure to be derived. 	e hardship or be rn from such property by			
9. Mailing notification fee per Planning & Sustainability Fe	e Schedule For a list of			
addresses, please refer to the Town's <u>Development No</u>				
10. Certificate of Appropriateness fee per Planning & Sust	ainability Fee Schedule	Х		



QUESTIONS? Call or email us!

Town of Chapel Hill Office of Planning and Sustainability

Development Services919-969-5060 planning@townofchapelhill.org

G: Applicant signature

I hereby certify that I am authorized to submit this application; that all information is correct to the best of my knowledge, and all work will comply with the State Building Code and all other applicable State and local laws, ordinances, and regulations.

I acknowledge and agree that the Historic District Commission members, Town employees, and Town agents may enter, solely in performance of their official duties and only at reasonable times, upon the applicant's property for examination or survey thereof pursuant to North Carolina General Statute 160A-400.8. However, no member, employee, or agent of the Historic District Commission may enter any private building or structure without the express consent of the owner or occupant thereof.

I understand and agree that an approved Certificate of Appropriateness is valid only for the particular application, plans, specifications and related project details presented to, and approved by, the Historic District Commission. If any of the data contained in this application, any plans or any specifications presented to the Commission are changed or altered for any reason, including, but not limited to, changes or alternations deemed practically necessary during construction, required due to subsequent Town reviews, or otherwise, a new hearing before the Historic District may be required. By signing below, the applicant agrees to notify the Development Services Center of any changes or alternations in the data contained in this application, the approved plans or the approved specifications related to the project that is the subject of this application.

Hearings on Certificate of Appropriateness applications before the Commission are quasi-judicial proceedings. Therefore, Historic District Commission members are not permitted to discuss a pending application with the applicant or other party. By signing below, the applicant agrees to refrain from speaking with or contacting any member of the Historic District Commission about an application outside of the formal evidentiary hearing on the application.

GREGORY A	ROBING	son of	0700	05DEE18
Applicant (printed name)	Signature	Date		
Vissinia Mc Afee	llugene	Mest	OSDIC 18	
Property Owner	Signature	Date		
(if different from above)	Lint HOA			

COA Application Section A. Property Information

Property Address	Parcel	Owner	E-mail address	Mailing Address	City	St	Zip	Telephone
			dovcohn@gmail.com					919-489-6624
233 MCCAULEY ST BLDG A UNIT 1	9788249992.001	COHN DOV I	dan.cohn@gmail.com	527 COSWELL RD	CHAPEL HILL	NC	27516	919-401-9300
233 MCCAULEY ST BLDG A UNIT 2	9788249992.002	HARGROVE WILLIAM F JR	omnitutor35@yahoo.com	A-2 GRAHAM COURT	CHAPEL HILL	NC	27516	919-929-0834
233 MCCAULEY ST BLDG A UNIT 3	9788249992.003	FARLEY THOMAS E	tfarley1@earthlink.net	4803 FOREST OAKS DR	GREENSBORO	NC	27406	336-674-2622
233 MCCAULEY ST BLDG A UNIT 4	9788249992.004	BETHUNE SALLY	sallybethune@gmail.com	1001 WOOD SAGE DR	CHAPEL HILL	NC	27516	919-967-3456
233 MCCAULEY ST BLDG A UNIT 5	9788249992.005	BOWLEN JEFFREY	tapecorder@yahoo.com	233 MCCAULEY ST	CHAPEL HILL	NC	27516	919-201-5494
		A						704-954-7225;
233 MCCAULEY ST BLDG A UNIT 6	9788249992.006	C BAM LLC	Ccoey@primaxproperties.com	1100 E MOREHEAD ST	CHARLOTTE	NC	28204	919-401-9300
233 MCCAULEY ST BLDG B UNIT 1	9788249992.007	MCAFEE GARY O	vrmcafee@gamil.com, DrOfBytes@gmail.com	2213 COUNTRYWOOD NORTH	RALEIGH	NC	27615	919-247-0859
233 MCCAULEY ST BLDG B UNIT 2	9788249992.007	PETROVA KIRA A	Di Oi Dy too @ giriaii. oo iii	401 BROOKSIDE DR	CHAPEL HILL	NC	27516	
233 MCCAULEY ST BLDG B UNIT 2	9788249992.009	TSENG IVAN	ivantseng123@gmail.com	12708 RICHMOND RUN DR	RALEIGH	NC	27614	919-208-5353
	9788249992.010	RICE BRADLEY A	shelleyrice2@gmail.com	3327 TURNBRIDGE DR	RALEIGH	NC	27609	919-325-0689
233 MCCAULEY ST BLDG B UNIT 4	9700249992.010	RICE BRADLET A	Shelleyheez@gmail.com	3321 TORRIBATION	TVALLIOIT	140	27000	336-299-4420;
233 MCCAULEY ST BLDG B UNIT 5	9788249992.011	OSSEY ISANNE H	kevinossey@gmail.com	210 MANCHESTER PL	GREENSBORO	NC	27410	919-401-9300
233 MCCAULEY ST BLDG B UNIT 6	9788249992.012	CRAVER ADELAIDE AUSTELL	NA	522 W MARION ST	SHELBY	NC	28150	704-487-9622 Fax 704-482- 0466
235 MCCAULEY ST BLDG C UNIT 1	9788249992.013	MENDEL FAMILY INVESTMENTS LLC	markmendel100@gmail.com	7554 ESTRELLA CIR	BOCA RATON	FL	33433	561-376-3073 561-852-3703
235 MCCAULEY ST BLDG C UNIT 2	9788249992.014	PEAVY KENNETH A	rpeavy@mtnvalleyhospice.org	174 OAKMONT PL	MOUNT AIRY	NC	27030	336-710-2163; 336-789-4504
235 MCCAULEY ST BLDG C UNIT 3	9788249992.015	GUILFORD INVESTMENT PROPERTIES LLC		146 CHURCH AVE	HIGH POINT	NC	27262	
235 MCCAULEY ST BLDG C UNIT 4	9788249992.016	COHEN MELVIN L	brendahestercohen@hotmail.com	PO BOX 578	MORGANTON	NC	28680	828-437-6996
235 McCauley ST BLDG C UNIT 5	9788249992.017	KITTINGER JOSEPH W III	jkittinger@aol.com	303 BRADLEY CREEK POINT RD	WILMINGTON	NC	28403	910-256-6675; 919-401-9300
233 MCCAULEY ST BLDG C UNIT 6	97882499920.018	FEDOR JENNIFER	fedorjl@msn.com	UNIT C-6	CHAPEL HILL	NC	27516	919-414-1741
235 MCCAULEY ST BLDG D UNIT 1	9788249992.019	HEALEY KENT W	vickie.healey@gmail.com	6 SWEETBRIAR LN	CHAPEL HILL	NC	27514	919-408-0888
235 MCCAULEY ST BLDG D UNIT 2	9788249992.020	BETHUNE SALLY T	sallybethune@gmail.com	1001 WOOD SAGE DR	CHAPEL HILL	NC	27516	919-967-3456
235 MCCAULEY ST BLDG D UNIT 3	97882499920.021	HARGROVE WILLIAM F JR	omnitutor35@yahoo.com	233 MCCAULEY ST	Chapel Hill	NC	27516	919-929-0834
								919-401-9300;
235 MCCAULEY ST BLDG D UNIT 4	9788249992.022	PATTERSON PAMELLA G	jpm1pgp1@att.net	1916 E 8TH ST	CHARLOTTE	NC	28204	704-332-4503
235 MCCAULEY ST BLDG D UNIT 5	9788249992.023	BETHUNE SALLY TART	sallybethune@gmail.com	1001 WOOD SAGE DR	CHAPEL HILL	NC	27516	919-967-3456
235 MCCAULEY ST BLDG D UNIT 6	97882499920.024	POE WILLIAM E III	poe.will@gmail.com	3801 SEDGEWOOD CIR	CHARLOTTE	NC	28211	415-269-4049; 704-287-2324

COA Application Section E. Applicable Design Guidelines

Section/Page	Topic	Brief description of applicable aspect of your proposal
Pg. 29 (1,3,7)	Masonry	Small amount of masonry will be removed in order to erect fire escape landings. Specifications will include language to require the contractor to replace this masonry and ensure that its appearance is the same as adjacent masonry.
Pg. 33 (4,5,6)	Architectural Metals	Scope of work consists of replacing or repairing severely corroded fire escape structures. Replacement of these structures will require installation of rail pickets at the distance as required by the building code. General character and dimensions of the fire escapes will match the existing. Existing structure consists of painted structural steel. Material to replace existing structure will be structural steel also.
38	Exterior Walls	Small amount of siding will be removed in order to erect fire escape landings. Specifications will include language to require the contractor to replace this siding and ensure that its appearance is the same as adjacent siding.
35 (1,2,3,4,5)	Paint & Exterior Color	Small portions of siding will have to removed to connect the fire escapes to existing structure. Specifications will require replacement of this siding with the same material as the existing. Paint colors will be the same as those in place now.
47 (1,2,3,6)	Accessibility & Life Safety Conditions	Fire escape structures have been determined to be in poor condition and in need of repair. Existing rails and landings do not conform to current building code requirements or best practices. The scope of this project addresses repairs to the structures without compromising the historic nature of the building and surrounding neighborhood.

COA Application Section F. Checklist of Application Materials

1. Written description of physical changes proposed

Fire escape structures have been determined to be in poor condition and in need of repair. Existing rails and landings do not conform to current building code requirements or best practices. The scope of this project will include replacement of the two east fire escapes and, pending a detailed evaluation by GARPE, the repair of the west fire escapes.

The design compiled by GARPE will be essentially the same in appearance as the existing fire escapes with attention to compatibility with the surrounding neighborhood appearance and long-term durability.

COA Application Section F. Checklist of Application Materials

2. History, context and character information

NPS Form 10-900 (Oct. 1990;

United States Department of the Interior National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property
historic name WEST CHAPEL HILL HISTORIC DISTRICT
other names/site number N/A
2. Location
street & number a portion of the blocks roughly bounded by W. Cameron Ave Anot for publication Malette St., Ransom St., Pittsboro St., University Dr., & the Westwood Subdivision city or town Chapel Hill N/A vicinity
state North Carolina code NC county Orange code 135 zip code 27514
3: State/Federal Agency Certification
As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this \$\infty\$ nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.) Signature of certifying officially title State of Federal agency and bureau In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)
Signature of commenting official/Title Date
State or Federal agency and bureau
4. National Park Service Certification
I hereby certify that the property is: Signature of the Keeper Date of Action See continuation sheet.
☐ determined eligible for the National Register ☐ See continuation sheet.
determined not eligible for the National Register.
removed from the National Register.
[] other, (explain:)

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

o (:		7		. 20
Section	number	/	Page	20

West Chapel Hill Historic District Orange County, NC

73. 227 McCauley St.

1915-1925

One-and-a-half-story dwelling with front-gabled roof and wrap-around porch which has been partially filled in.

74. 233 McCauley St.

1925-1932

Apartment complex with two identical, three-story buildings. Each building has two ranks of enclosed sleeping porches facing each other and a small courtyard. The buildings are brick on the first and second stories and feature a brick gambrel roof on the end walls. The full-length shed dormer which constitutes the third story is weatherboarded.

75. 237 McCauley St.

c. 1900

John O'Daniel House

One-story frame dwelling under a high hipped roof. An eclectic structure, this cottage features Eastlake, Gothic, and Classical Revival elements, including a high hipped roof, a wrapped-porch surmounted by a pentagonal roof, framed cornerposts, a projecting front-gabled wing, interior chimneys and a complex porch structure. Chapel Hill stone walls delineate the lawn.

75a. 1910s-1920s one-story front-gabled frame garage

North side 300 block McCauley Street

76. 300 McCauley St.

1925-1932

Two-story house with side-gabled roof and oversized shed dormer which contains three pairs of sash windows. The symmetrical facade, paired windows, and interior end-chimneys all suggest the Colonial Revival style.

77. 304 McCauley St.

1925-1932

One-story frame dwelling with hipped roof, hipped dormer, paired windows and interior end-chimney.

77a.

post-1948 one-story frame garage

NC-age

77b.

mid-1940s side-gabled garden shed

78. 306 McCauley St.

1925-1932

Two-story frame house with hipped roof, paired windows and full-facade porch.

78a. 1950s one-story side-gabled frame secondary house NC-age

COA Application Section F Checklist of Application Materials

Sub-section 3. Justification of Appropriateness

- A. No Change
- B. No Change
- C. No change
- D. Structure of fire escapes will be essentially the same as original fire escapes. Changes anticipated will be orientation of rail pickets in the vertical direction, the placement of these pickets no more than four inches apart and slightly larger columns and beams at landings.
- E. No change
- F. No change
- G. No change
- H. Structure of fire escapes will be essentially the same as original fire escapes. Changes anticipated will be orientation of rail pickets in the vertical direction, the placement of these pickets no more than four inches apart and slightly larger columns and beams at landings.
- Existing fire escapes are severely corroded. Scope of this project consists of replacement or repair of these structures with new structures or additions that will conform with the current building code. See attached report by Summit Design and Engineering.

COA Application Section F Checklist of Application Materials

Sub-section 4. Photographs



Photograph(s): 1 Date taken:

Description: View from McCauley Street

File No: 18010 Camera facing:



Photograph(s): 2 Date taken:

Description: View from parking lot

File No: 18010 Camera facing: West



Photograph(s): 3
Date taken:

Description: View from parking lot

File No: 18010 Camera facing: West



Photograph(s): 4
Date taken:

Description: View from parking lot

File No: 18010 Camera facing: West



Photograph(s): 5 Date taken:

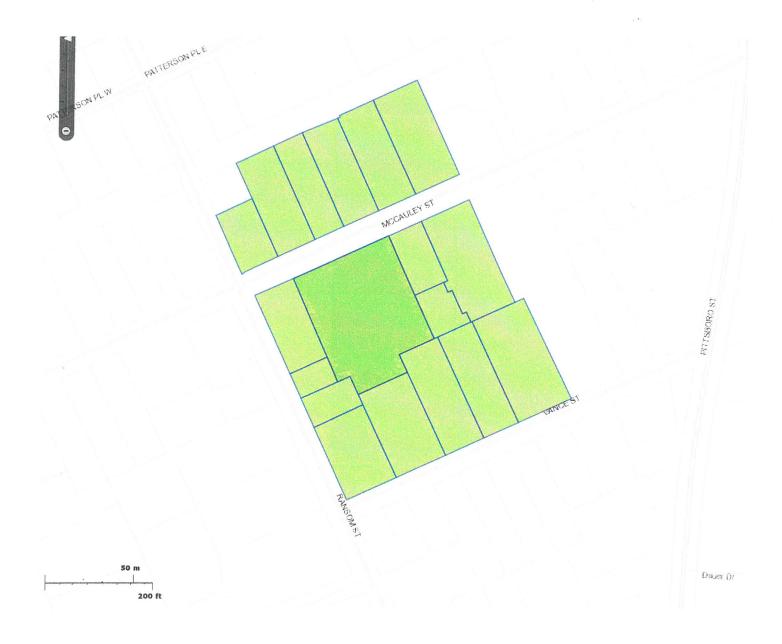
Description: View from McCauley Street into parking lot

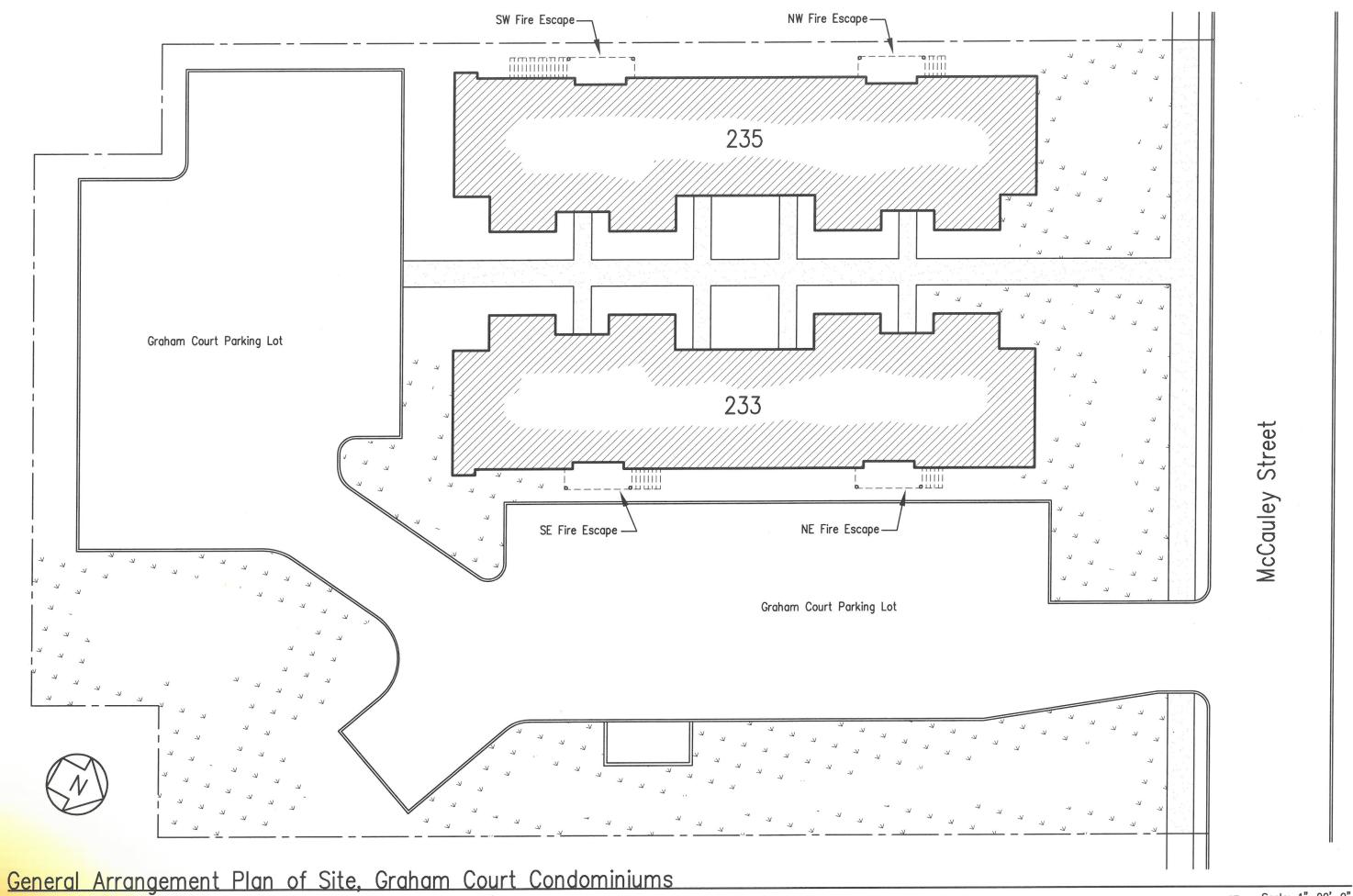
File No: 18010

Camera facing: West

COA Application Section F Checklist of Application Materials

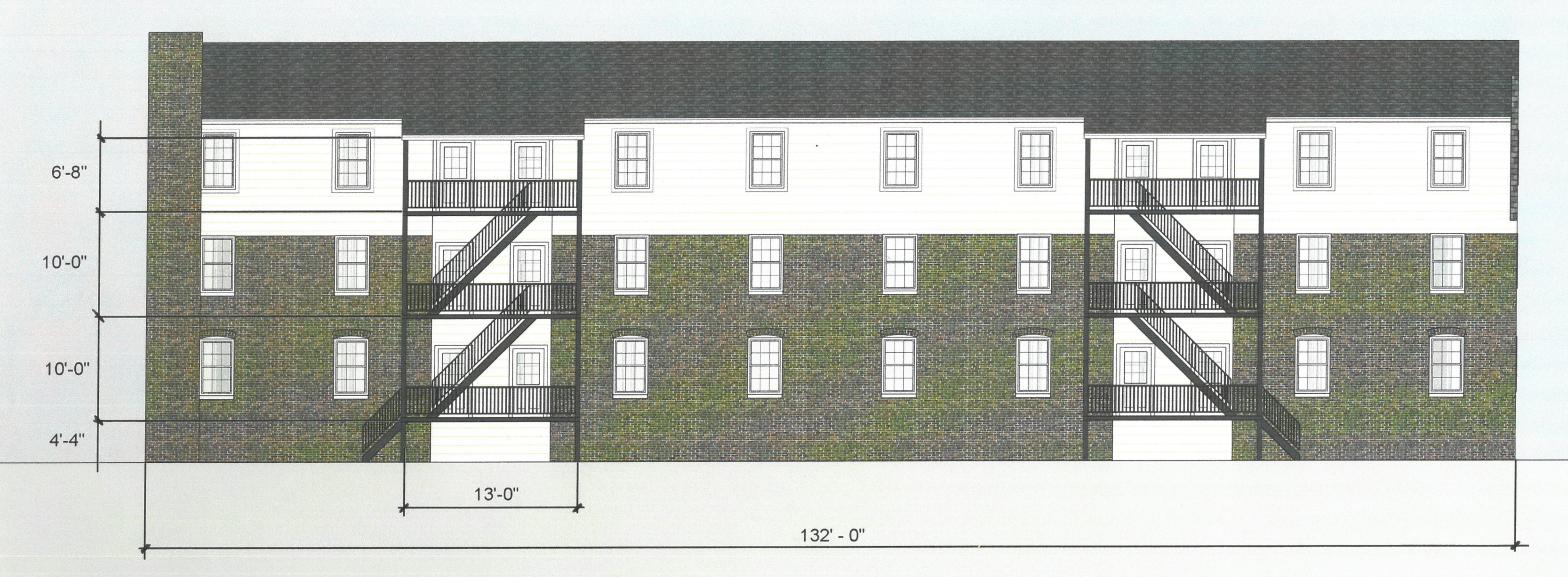
Sub-section 5. Site Plan Set





COA Application Section F. Checklist of Application Materials

6. Elevation Drawings



East Elevation



X:\Active\2018\18010 Graham Court Condos\Historic Committee\Additional COA Documentation\COA App F8.docx

COA Application Section F Checklist of Application Materials

Sub-section 8. Demolition/Relocation Information

Engineer's Report

September 20, 2017

Mr. Ted Parenti Rampart Management 11312 US 15-501 N. Suite 107-174 Chapel Hill, NC 27517

GRAHAM COURT CONDOMINIUMS: 233 & 235 MCCAULEY ST., CHAPEL HILL, NC ASSESSMENT OF EXTERIOR STAIRWAYS

Dear Mr. Parenti:

At your request, Summit visited the subject property on September 11, 2017. The purpose of our visit was to perform a walkthrough structural survey of the four exterior stairs at the subject address, and note any areas of structural concern that would pose a risk to the structural integrity of the stairs.

STAIR DESCRIPTION

The stairs are entirely constructed of structural steel. The outward side of the stairways are supported on two pipe columns. The pipe columns are not continuous through the height of the stairs, each run terminates at the landings. The inward side of the stairway is connected to the condominium building at each landing. The landing deck is constructed of checkered plate. The perimeter of the landing is framed by channel members, with interior joist framing either similar channels or angle. The stair tread is a checker plate material with open rise. Treads are connected to channel stringers. The top most columns support a wood framed overhang.

See **IMAGE 1** for a labelled aerial overview of the stairs and their associated number designation as further referenced within this report. The condition of each stairway will be addressed in the subsequent sections.

OBSERVATIONS

1. STAIR #1

An overall image of the stairway can be seen in **IMAGE 3**. The checkered plate deck which comprises the landing surface of the stairway is heavily corroded. The corrosion is most significant at the perimeter of the landing and joints between individual plates (See **IMAGE 4-7**). Most of the weld between the deck and the perimeter framing has corroded away, which is evidenced by the deck curling or bubbling upward from the support framing below (See **IMAGE**

8). Framing members which are in contact with the plate deck have experienced varying degrees of corrosion; some members having lost nearly all the cross-sectional area and connection welds (See IMAGE 9). The checkered plate stair treads have varying degrees of surface to deep penetration rusting, located predominately on the underside of the plate and at the end connection to the stringers (See IMAGE 10). Some treads appear to have been repaired in the past by the addition of an angle support at the connection to the stringer; the repair angles are mostly in a similar state of corrosion (See IMAGE 11). The connection to the building structure on the inside of the stairways appears to be angles slotted into grout joints of the structural brick exterior wall (See IMAGE 12).

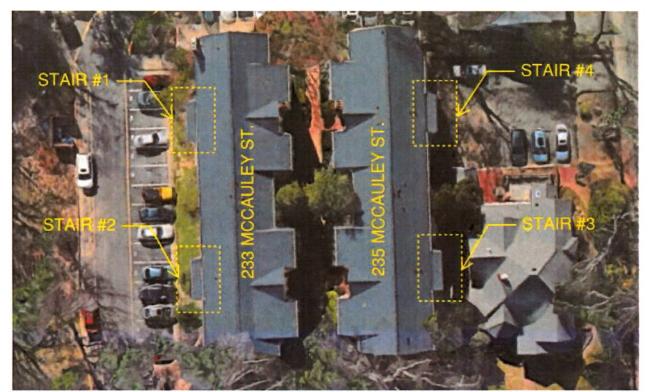


IMAGE 1 - Aerial Overview

2. STAIR #2

An overall image of the stairway can be seen in **IMAGE 13**. A similar level of corrosion damage is present on stair #2 as stair #1. The checkered plate decking has experienced significant loss of area in several locations (See **IMAGE 14-17**). The deck has bubbled and curled upward from the support framing predominately at the landing perimeter and joints between decking pieces. Welds between the deck and support framing are compromised or non-existent in several locations. Framing members have some loss of area due to corrosion, mostly in locations where in contact with the plate decking. The stair treads are in varying degrees of corrosion, with some treads experiencing near full loss of area and welds at the connection to the



stringers (See IMAGE 18-19). It appears select locations were repaired in the past with the addition of a support angle at the tread to stringer connection (See IMAGE 20). The pipe columns are connected to a concrete grade slab. It is typical for these foundations to extend below the frost depth to eliminate yearly frost heave during the transition of seasons from winter to spring. It was observed that the foundation sits inches below the grade elevation with no additional footing extending below the frost depth (See IMAGE 21). Significant splitting of the foundation slab was observed; the slab does not contain any steel reinforcement in the form of a welded wire frame or deformed rebar (See IMAGE 22).

3. STAIR #3

An overall image of the stairway can be seen in IMAGE 23. The stairway is in better condition than noted for stairs #1 and #2. The corrosion of the stair structure is mostly limited to the perimeter and joints of the checkered plate decking, as well as connected framing surfaces (See IMAGE 24-26). Similar bubbling of the decking was observed, with most perimeter welds no longer connecting the deck to the support framing. Some of the support framing has concerning loss of area at locations with heavily corroded deck, with most of the framing having minor surface rust at the top flange. Some of the stair treads and connection welds are in poor conditions, with significant loss of area due to long term corrosion (See IMAGE 27-28). A portion of these members appear to have been repaired in the past by the addition of a support angle. The connection of the stairway to the building is unique to those observed for stairs #1 and #2 (See IMAGE 29). A vertical angle is connected to the perimeter framing, and bolted into the brick wall.

4. STAIR #4

An overall image of the stairway can be seen in **IMAGE 30**. The stairway is in similar condition as noted in stair #3. At the perimeter of the checkered plate decking, corrosion has degraded the steel significantly. At these locations connecting welds with the support framing have rusted away. Support framing members adjacent to the heavily corroded deck see similar levels of degradation at the contact surfaces (See **IMAGE 31-34**). Select stair treads have significant rust penetration, predominately on the underside and at the welded connection to the stringers (See **IMAGE 35**). Angle reinforcement of treads was observed at some locations like those previously noted. Connection of the stairway with the building is the same as stair #3 (See **IMAGE 36**).

STRUCTURAL EVALUATION

The following structural evaluation is based on the existing stairway framing. Conclusions reached assume that the stairways were maintenance repaired, replacing all corroded members with identical framing and original welds are intact or identically replaced.

The Town of Chapel Hill Inspections Division letter to Rampart Management dated August 23, 2017, has specified that the stairway structures should be evaluated for a 100 psf applied load. Three members were evaluated for their fitness to support the specified loading condition: landing support channels, tread stringer channels, and pipe columns; see **IMAGE 2** for member label reference.

The landing support channels were measured at a 3-inch depth, with a flange width and thickness of 1 inch and 1/4 inch, respectively. Calculations show that the landing support channels are not adequate when evaluated against the demand loads as defined by the Town of Chapel Hill. The tread stringer channels were measured at a 10-inch depth, with a flange width and thickness of 1.5 inches and 1/4 inch, respectively. Calculations show that the tread stringer channels are adequate. The pipe columns were measured at a 3-inch diameter, and the section was assumed to be a P3 STD pipe section. Calculations show that the columns are adequate.

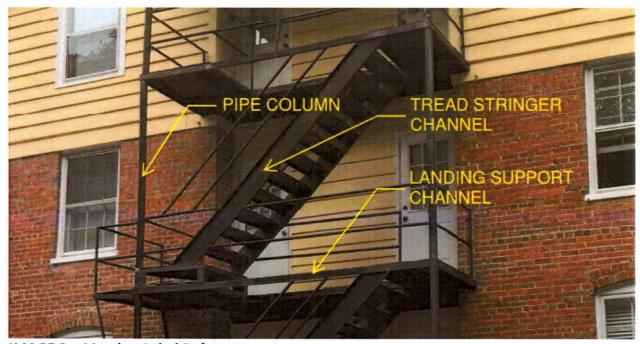


IMAGE 2 - Member Label Reference

Additionally, there are some connection and framing layout details which are not in line with proper design practice. The pipe columns do not run continuous up the height of the stairs, and terminate at each landing (see **IMAGE 10**). The fully vertical loads from the pipe columns must pass through the 3-inch landing support channels. Second, the triangular shaped tread which turns the egress from the landing to the typical stair treads is supported at the corners by angle stub columns (see **IMAGE 4**). These stub columns are not placed directly above the landing



support framing, and relies on the checkered plate deck to transfer the load. Lastly, the 10-inch channel stringers bear on the triangular shaped tread, rather than extending down to the landing framing, which creates concentrated loads on the plate deck due to the previous described concern.

ARCHITECTURAL EVALUATION

Numerous aspects of the existing fire stairs do not meet present code requirements, which represent safety concerns during service use. The attached Architects Field Report goes into further detail concerning these items.

RECOMMENDATIONS

The four stairs assessed at the subject address require, at a minimum, maintenance repairs by removal of rust and replacement of heavily corroded members and welded connections. Further, the landing support framing (see IMAGE 2) requires reinforcement of the existing members or replacement with a larger section to meet the demand load requirements as defined by the Town of Chapel Hill. In addition to these basic requirements, it is our strong recommendation that the handrails be replaced with a present code compliant system, further outlined in the attached Architects Field Report. It is our opinion that besides the corrosion problems, the existing handrail system is the greatest safety concern regarding the stairways.

Due to the scope of maintenance repairs and reinforcement required to bring the structures into operating condition, we reached out to the Town of Chapel Hill to determine requirements for bringing the stairs up to code compliance as outlined in the attached architectural evaluation. Travis Crabtree, with the building inspection department, has communicated that the structures will be required to meet present code if the value of the repair and reinforcement exceeds fifty percent of the structure's value.

It is our professional opinion that stairs #1 and #2 will require repairs which exceed fifty percent of the structure's value. Therefore, the stairways should be brought up to present code requirements: maximum rise to run of tread, egress turn dimensions, etc. The footprint of these stairways is not sufficient to meet these requirements. Complete removal and replacement of stair #1 and #2 is recommended.

It is our professional opinion that stairs #3 and #4 is in a condition such that the repair and reinforcement cost will not exceed the fifty percent threshold. As previously noted, complete removal and replacement of the handrail system to meet present code requirements is advised. A repair and reinforcement plan would be the next step towards being the stairways into operating condition.

We reached out to several local steel fabricators whom have completed similar exterior stair designs in the past. Based on their input we would estimate the cost to replace a stairway to be in the range of \$40,000 to \$50,000 per stairway. Further, we would estimate the cost to repair and reinforce an existing stairway in the range of \$15,000 to \$25,000 per stairway. If you decide to move ahead with the work, we can provide a more accurate and competitive cost estimate.

CONCLUSION

The content of this report represents our professional opinion based on the areas observed at the time of this inspection. Based on the observations, structural and architectural assessments noted in the previous sections, it is our professional opinion that replacement of stairs #1 and #2, as well as repair and reinforcement of stairs #3 and #4 is the best course of action. We would be happy to assist in the replacement design of stairs #1 and #2, as well as development of a repair plan for stairs #3 and #4.

We appreciate the chance to assist you with this project. Please feel free to contact us if you have any questions or require additional information.

Respectfully Submitted,

Joseph W. Balloni, PE Structural Engineer

Summit Design and Engineering Services, PLLC



IMAGE 3 - Stair #1 Overall



IMAGE 4 - Stair #1 Landing Deck



IMAGE 5 - Stair #1 Landing Deck



IMAGE 6 - Stair #1 Landing Deck



IMAGE 7 - Stair #1 Landing Deck



IMAGE 8 - Stair #1 Landing Deck



IMAGE 9 - Stair #1 Landing Framing



IMAGE 10 - Stair #1 Tread



IMAGE 11 - Stair #1 Tread



IMAGE 12 - Stair #1 Connection to Building



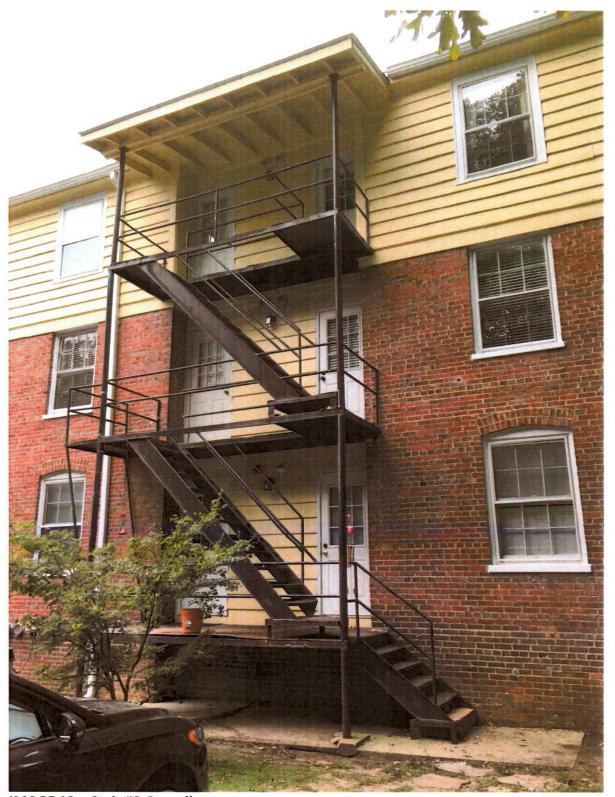


IMAGE 13 - Stair #2 Overall



IMAGE 14 - Stair #2 Landing Deck



IMAGE 15 - Stair #2 Landing Deck



IMAGE 16 - Stair #2 Landing Deck



IMAGE 17 - Stair #2 Landing Deck



IMAGE 18 - Stair #2 Tread



IMAGE 19 - Stair #2 Tread



IMAGE 20 - Stair #2 Tread



IMAGE 21 - Stair #2 Foundation



IMAGE 22 - Stair #2 Foundation



IMAGE 23 - Stair #3 Overall



IMAGE 24 - Stair #3 Landing Deck



IMAGE 25 - Stair #3 Landing Deck



IMAGE 26 - Stair #3 Landing Deck



IMAGE 27 - Stair #3 Tread



IMAGE 28 - Stair #3 Tread



IMAGE 29 - Stair #3 Connection to Building



IMAGE 30 - Stair #4 Overall



IMAGE 31 - Stair #4 Landing Deck



IMAGE 32 - Stair #4 Landing Deck



IMAGE 33 - Stair #4 Landing Deck



IMAGE 34 - Stair #4 Landing Framing



IMAGE 35 - Stair #4 Tread



IMAGE 36 - Stair #4 Connection to Building

ATTACHMENTS ARCHITECTS FIELD REPORT & FIELD REPORT PHOTO JOURNAL



ARCHITECTS FIELD REPORT

DD.	α	-	BIA	MF.
PK	UIF		NA	IVIE:

233 & 235 McCauley Street Fire Escape

PROJECT NO .:

17-409

PROJECT

Assessment 233 & 235 McCauley Street

FIELD REPORT NO .:

SUMMIT - 1

ADDRESS:

Chapel Hill, NC 27516

DATE:

09/11/2017

Owner:

Ted Parenti, Rampart Management

REPORT DISTRIBUTION:

OWNER

ARCHITECT

CONSULTANT FIELD

WEATHER:

Overcast

TEMP:

70°

TIME:

11:00 AM

X

CONDITION OF SITE:

Good

PRESENT AT SITE

ATTENDANT

Bradley McClung, AIA, NCARB

COMPANY

Summit Design and

Engineering Services

<u>ATTENDANT</u>

Joseph Balloni, PE Engineering Services COMPANY

Summit Design and

Uchenna Onwuemene

Summit Design and Engineering Services

PROPERTY MAP





SITE OBSERVATIONS

On September 11th, 2017, the team members listed above from Summit Design and Engineering were present at 233 & 235 McCauley Street Apartments to assess the physical condition and safety of the fire escapes attached to the building. Please find my observations below, followed by a photo journal that captures the condition of the fire escapes:

General Observations

- 1. Landings are in poor condition; There is heavy corrosion and rust
- 2. The stringers appear to be in good condition
- 3. Pipe columns are not continuous
- 4. There are welds that have deteriorated and appear to be compromised

General Life Safety & Building Code Observations

- 1. There is not a continuous handrail for any of the fire escapes
- 2. Landings are approximately 6" below the finish floor of the living units and present a tripping hazard
- 3. Railings are approximately 36" high and do not offer protection from an object passing through. Some portions of railings are lower than 36"
- 4. Open risers present a tripping hazard
- 5. The height of the risers is inconsistent, which presents a tripping hazard
- 6. There is a triangular landing supported by 3 angles; This riser is shorter in height than the balance of the risers, creating a tripping hazard.
- 7. The riser portion of the fire escapes are adequate (36" wide), but the clear width is reduced at the triangular landing (see item #6)
- 8. Tread depths are only 10 10 1/2".
- 9. At the first floor landing, there is no barrier railing under the stringer. This allows someone to walk under the stringer and potentially hit their head on the stringer.
- 10. Clear widths are reduced at the top landing (approximately 22" clear between railing and building)

Fire Escape #1

Fire Escape #1 is in very poor condition overall. In addition to the general observations noted above, rust has completely eaten through portions of stair treads and landings to the point that there are holes present. There are two diagonal pipes that support a landing above welded directly to the landing below where one of the welds has been completely compromised due to corrosion and rust.

Fire Escape #2

Fire Escape #2 is also in very poor condition overall. The first tread appears to be vertically supported by a piece of wood, indicating that it is not adequately supported. There are welded portions of railing that have become structurally compromised due to corrosion. The concrete slab supporting the pipe columns is showing signs of settlement.

In addition to the General Life Safety and Building Code Observations, this fire escape presents another life safety issue that is a cause for concern: The first riser at grade is 8" high concrete pad and the remainder of the risers are roughly 6 \%" high. This irregular riser creates a tripping hazard.





Fire Escape #3

Fire Escape #3 is better condition than Fire Escape #1 &2, although many of the general observations still apply to this fire escape. Because of the proximity of the fire escape to the fence, it is difficult to travel between the fence and the fire escape at grade.

In addition to the General Life Safety and Building Code Observations, this fire escape presents another life safety issue that is a cause for concern: There is no barrier below the first stringer preventing someone from walking under the stairs.

Fire Escape #4

Fire Escape #4, like the other fire escapes, is very rusted and corroded. There are portions of welds attaching treads to stringers where holes are present due to rust. Likewise, rust has damaged the back edges of the treads so much that you can see them falling apart. Similar to Fire Escape #3, the proximity of the fire escape to the fence presents a travel problem at grade.

In addition to the General Life Safety and Building Code Observations, this fire escape presents another life safety issue that is a cause for concern: There is no barrier below the first stringer preventing someone from walking under the stairs.

ADDITIONAL INFORMATION & RECOMMENDATIONS

We observed chairs on the landings, which indicate the possibility of congregation on the fire escapes. The property is currently used as student housing. College students can be very unpredictable, and in our opinion, the existing fire escapes present the life safety issues stated in the General Life Safety and Building Code observations.

After observing and documenting the physical condition of the fire escapes, I contacted Travis Crabtree (Chapel Hill Fire Department, Planning and Development Services) to discuss the options to remedy the fire escapes:

- 1. Structurally reinforce the existing fire escapes so they can support 100 pounds per square foot live load and repair and replace damaged areas of the fire escapes.
- 2. Completely remove the existing fire escapes and replace with stairs that are compliant with North Carolina Building Code.

Per my discussion with Travis Crabtree, the fire escapes are the secondary means of egress from the dwelling units. In order to remain classified as a fire escape, the amount of remediation work cannot exceed 50% of the existing structure.

It is our opinion that in order to repair the damaged portions of the fire escapes and structurally bring them up to code, the amount of the work would likely exceed 50% threshold. In doing so, there are still too many hazards (falling over or through railing, indifferent riser heights, landings below floor level, head clearances under stringers, and reduced width of path of travel) present to warrant repairing the fire escapes.

Therefore, we recommend removing the existing fire escapes and replacing with new stairs that are compliant with the North Carolina Building Code.

AT	TA	CH	IN	IE	NT	S:

Photo Journal

REPORT BY:

Bradley McClung, AIA, NCARB





FIELD REPORT PHOTO JOURNAL

POJECT NAME:

233 & 235 McCauley Street Fire Escape

Assessment

PROJECT ADDRESS:

233 & 235 McCauley Street

Chapel Hill, NC 27516

PROJECT NO .:

17-409

FIELD REPORT NO .:

SUMMIT-001

DATE:

09/13/2017



Fire Escape #1 Landing

- Diagonal brace weld compromised
- Heavy rust and corrosion

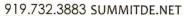




Photo 02

Fire Escape #1 Landing

Heavily corroded deck, typical





FIELD REPORT PHOTO JOURNAL

POJECT NAME:

233 & 235 McCauley Street Fire Escape

Assessment

PROJECT ADDRESS:

233 & 235 McCauley Street

Chapel Hill, NC 27516

PROJECT NO .:

17-409

FIELD REPORT NO .:

SUMMIT-001

DATE:

09/13/2017



Photo 03

Fire Escape #1 Landing

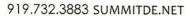
Hole in deck due to rust



Photo 04

Fire Escape #2, at grade

- Irregular riser height
- Wood supporting riser





FIELD REPORT PHOTO JOURNAL

POJECT NAME:

233 & 235 McCauley Street Fire Escape

Assessment

PROJECT ADDRESS:

233 & 235 McCauley Street

Chapel Hill, NC 27516

PROJECT NO .:

17-409

FIELD REPORT NO .:

SUMMIT-001

DATE:

09/13/2017



Photo 05

Fire Escape #1 Tread Support

Support angle present at some treads, but not present at others

Photo 06

- Different riser heights, typical for all fire escapes
- Also depicted is that residence finish floor is approximately 6" above the landing height, typical





FIELD REPORT PHOTO JOURNAL

POJECT NAME:

233 & 235 McCauley Street Fire Escape

Assessment

PROJECT ADDRESS:

233 & 235 McCauley Street

Chapel Hill, NC 27516

PROJECT NO .:

17-409

FIELD REPORT NO .:

SUMMIT-001

DATE:

09/13/2017

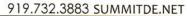


Photo 07

- Discontinuous pipe columns, typical.
- Current photo shows the settlement at Fire Escape #2 as well.

Photo 08

- Railing heigh is approximately 36" above landing height, typical.
- Also note that there are no vertical balusters to prevent falling through the structure.





FIELD REPORT PHOTO JOURNAL

POJECT NAME:

233 & 235 McCauley Street Fire Escape

Assessment

PROJECT ADDRESS:

233 & 235 McCauley Street

Chapel Hill, NC 27516

PROJECT NO .:

17-409

FIELD REPORT NO .:

SUMMIT-001

DATE:

09/13/2017



Fire Escape #3 & #4

 Proximity of stair to fence makes travel to parking lot difficult.

 There is no barrier under the stringer to prevent people from walking under the stairs.

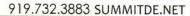
Open risers





Photo 10

Holes in deck due to rust, typical.





FIELD REPORT PHOTO JOURNAL

POJECT NAME:

233 & 235 McCauley Street Fire Escape

Assessment

PROJECT ADDRESS:

233 & 235 McCauley Street

Chapel Hill, NC 27516

PROJECT NO .:

17-409

FIELD REPORT NO .:

SUMMIT-001

DATE:

09/13/2017

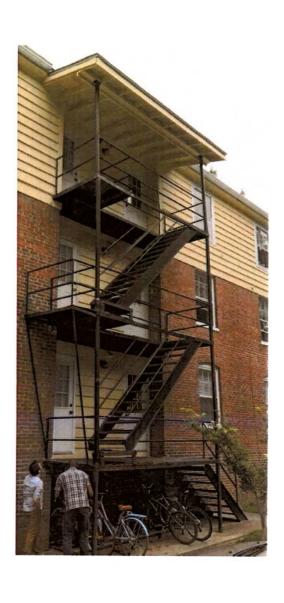
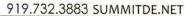


Photo 11

 Image shows the overall picture of the fire escapes. The open railing presents a safety issue





FIELD REPORT PHOTO JOURNAL

POJECT NAME:

233 & 235 McCauley Street Fire Escape

Assessment

PROJECT ADDRESS:

233 & 235 McCauley Street

Chapel Hill, NC 27516

PROJECT NO .:

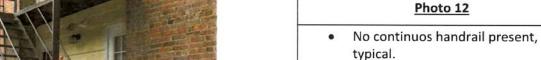
17-409

FIELD REPORT NO .:

SUMMIT-001

DATE:

09/13/2017



No barrier under stringer, typical.

 Triangular riser & next riser encroaches on 36" clear width, typical.

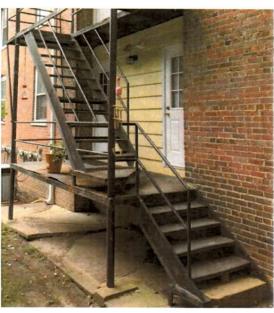




Photo 13

 Clear width of travel reduced at building corners, typ.