

MECKLENBURG COUNTY
Land Use and Environmental Services Agency
Code Enforcement
ENGINEERING JUDGMENT SUBMITTAL FORM
(SEE REQUIREMENTS ON PAGE THREE)
9/15/07

Date: 10/14/2018

PROJECT INFORMATION
Project Name: Gateway Apartments Building Permit #: 2008930
Street Address: 505 West Trade St. City/State: Charlotte, N.C.
General Contractor: VCC, LLC
Design Professional: Gregory A. Rife, PE
Design Professional's Registration No.: 10670

ENGINEERING JUDGMENT ENGINEER OF RECORD
Name: Gregory A. Rife, PE
Street Address: 4404 Ransley Dr., (residing - P.O. Box 364 Hamlet, N.C. 28537)
City/State: Concord, N.C. 28027 Phone #: 704-721-6449

SPECIAL INSPECTIONS
Special Inspector: Gregory A. Rife, PE
Special Inspector's Registration No.: 10670
Special Inspector's Address: 4404 Ransley Dr., (residing - P.O. Box 364 Hamlet, N.C. 28537)
City/State: Concord, N.C. 28027 Phone #: 704-721-6449

ENGINEERING JUDGMENT DESIGN INFORMATION
Date of CE Issuance: 10/14/2018 CE Number: 1452
For Expiration: 516. Maximum Book Value: \$995.
Maximum Class (if Applicable): \$995.

Jobbed System Type (Check All Applicable)
 Other to Show Other to Note Other to Note Other to Note Other to Note

Through Penetration System Type (Check All Applicable)
 Masonry Concrete Metal Other
 Other to Note Other to Note Other to Note Other to Note

Other Applications/System Type (Describe)

Related Systems/Engineering Judgment is Based Upon (List design code(s) that apply to the system and the related code(s) that apply to the system)
U.S. MANUFACTURER LETTER, 2017, 2017

This Engineering Judgment represents a design system that is not covered by any code or regulation and is not intended to be used as a basis for any other design or construction. It is intended to be used as a basis for the design and construction of the system only.

Signature: Gregory A. Rife, PE
Date: 10/14/18
Professional Seal: 10670

Signature: Daniel F. Joy
Date: 10/14/18
Professional Seal: 10670

Signature: Gregory A. Rife, PE
Date: 10/14/18
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CAFCO® BLAZE-SHIELD® II
Spray-Applied Fire Resistant Material

CAFCO BLAZE-SHIELD II is an organic, portland cement based spray-applied fire resistant material designed to provide the positive fire rating performance of concrete (ICC-ES E-1008, CAFCO-021).

Applied directly to steel, steel beams, columns or concrete surfaces, the system will not prevent the positive performance of CAFCO BLAZE-SHIELD II under fire conditions for concealed structural members.

CAFCO BLAZE-SHIELD II has been tested and is classified as "noncombustible" for exterior use" by Underwriters Laboratories, Inc. (UL) and is tested to meet or exceed the fire resistance of concrete (ICC-ES E-1008, CAFCO-021).

CAFCO BLAZE-SHIELD II has also been tested to meet or exceed the fire resistance of concrete (ICC-ES E-1008, CAFCO-021) and is classified as "noncombustible" for exterior use" by Underwriters Laboratories, Inc. (UL) and is tested to meet or exceed the fire resistance of concrete (ICC-ES E-1008, CAFCO-021).

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CAFCO BLAZE-SHIELD II Grade Specifications

Grade	Thickness	Fire Rating
1/2"	1/2"	1 1/2 hours
3/4"	3/4"	2 hours
1"	1"	3 hours
1 1/4"	1 1/4"	4 hours
1 1/2"	1 1/2"	4 1/2 hours
1 3/4"	1 3/4"	5 hours
2"	2"	6 hours
2 1/4"	2 1/4"	7 hours
2 1/2"	2 1/2"	7 1/2 hours
2 3/4"	2 3/4"	8 hours
3"	3"	9 hours
3 1/4"	3 1/4"	10 hours
3 1/2"	3 1/2"	10 1/2 hours
3 3/4"	3 3/4"	11 hours
4"	4"	12 hours
4 1/4"	4 1/4"	13 hours
4 1/2"	4 1/2"	13 1/2 hours
4 3/4"	4 3/4"	14 hours
5"	5"	15 hours
5 1/4"	5 1/4"	16 hours
5 1/2"	5 1/2"	16 1/2 hours
5 3/4"	5 3/4"	17 hours
6"	6"	18 hours
6 1/4"	6 1/4"	19 hours
6 1/2"	6 1/2"	19 1/2 hours
6 3/4"	6 3/4"	20 hours
7"	7"	21 hours
7 1/4"	7 1/4"	22 hours
7 1/2"	7 1/2"	22 1/2 hours
7 3/4"	7 3/4"	23 hours
8"	8"	24 hours
8 1/4"	8 1/4"	25 hours
8 1/2"	8 1/2"	25 1/2 hours
8 3/4"	8 3/4"	26 hours
9"	9"	27 hours
9 1/4"	9 1/4"	28 hours
9 1/2"	9 1/2"	28 1/2 hours
9 3/4"	9 3/4"	29 hours
10"	10"	30 hours
10 1/4"	10 1/4"	31 hours
10 1/2"	10 1/2"	31 1/2 hours
10 3/4"	10 3/4"	32 hours
11"	11"	33 hours
11 1/4"	11 1/4"	34 hours
11 1/2"	11 1/2"	34 1/2 hours
11 3/4"	11 3/4"	35 hours
12"	12"	36 hours
12 1/4"	12 1/4"	37 hours
12 1/2"	12 1/2"	37 1/2 hours
12 3/4"	12 3/4"	38 hours
13"	13"	39 hours
13 1/4"	13 1/4"	40 hours
13 1/2"	13 1/2"	40 1/2 hours
13 3/4"	13 3/4"	41 hours
14"	14"	42 hours
14 1/4"	14 1/4"	43 hours
14 1/2"	14 1/2"	43 1/2 hours
14 3/4"	14 3/4"	44 hours
15"	15"	45 hours
15 1/4"	15 1/4"	46 hours
15 1/2"	15 1/2"	46 1/2 hours
15 3/4"	15 3/4"	47 hours
16"	16"	48 hours
16 1/4"	16 1/4"	49 hours
16 1/2"	16 1/2"	49 1/2 hours
16 3/4"	16 3/4"	50 hours
17"	17"	51 hours
17 1/4"	17 1/4"	52 hours
17 1/2"	17 1/2"	52 1/2 hours
17 3/4"	17 3/4"	53 hours
18"	18"	54 hours
18 1/4"	18 1/4"	55 hours
18 1/2"	18 1/2"	55 1/2 hours
18 3/4"	18 3/4"	56 hours
19"	19"	57 hours
19 1/4"	19 1/4"	58 hours
19 1/2"	19 1/2"	58 1/2 hours
19 3/4"	19 3/4"	59 hours
20"	20"	60 hours
20 1/4"	20 1/4"	61 hours
20 1/2"	20 1/2"	61 1/2 hours
20 3/4"	20 3/4"	62 hours
21"	21"	63 hours
21 1/4"	21 1/4"	64 hours
21 1/2"	21 1/2"	64 1/2 hours
21 3/4"	21 3/4"	65 hours
22"	22"	66 hours
22 1/4"	22 1/4"	67 hours
22 1/2"	22 1/2"	67 1/2 hours
22 3/4"	22 3/4"	68 hours
23"	23"	69 hours
23 1/4"	23 1/4"	70 hours
23 1/2"	23 1/2"	70 1/2 hours
23 3/4"	23 3/4"	71 hours
24"	24"	72 hours
24 1/4"	24 1/4"	73 hours
24 1/2"	24 1/2"	73 1/2 hours
24 3/4"	24 3/4"	74 hours
25"	25"	75 hours
25 1/4"	25 1/4"	76 hours
25 1/2"	25 1/2"	76 1/2 hours
25 3/4"	25 3/4"	77 hours
26"	26"	78 hours
26 1/4"	26 1/4"	79 hours
26 1/2"	26 1/2"	79 1/2 hours
26 3/4"	26 3/4"	80 hours
27"	27"	81 hours
27 1/4"	27 1/4"	82 hours
27 1/2"	27 1/2"	82 1/2 hours
27 3/4"	27 3/4"	83 hours
28"	28"	84 hours
28 1/4"	28 1/4"	85 hours
28 1/2"	28 1/2"	85 1/2 hours
28 3/4"	28 3/4"	86 hours
29"	29"	87 hours
29 1/4"	29 1/4"	88 hours
29 1/2"	29 1/2"	88 1/2 hours
29 3/4"	29 3/4"	89 hours
30"	30"	90 hours
30 1/4"	30 1/4"	91 hours
30 1/2"	30 1/2"	91 1/2 hours
30 3/4"	30 3/4"	92 hours
31"	31"	93 hours
31 1/4"	31 1/4"	94 hours
31 1/2"	31 1/2"	94 1/2 hours
31 3/4"	31 3/4"	95 hours
32"	32"	96 hours
32 1/4"	32 1/4"	97 hours
32 1/2"	32 1/2"	97 1/2 hours
32 3/4"	32 3/4"	98 hours
33"	33"	99 hours
33 1/4"	33 1/4"	100 hours
33 1/2"	33 1/2"	100 1/2 hours
33 3/4"	33 3/4"	101 hours
34"	34"	102 hours
34 1/4"	34 1/4"	103 hours
34 1/2"	34 1/2"	103 1/2 hours
34 3/4"	34 3/4"	104 hours
35"	35"	105 hours
35 1/4"	35 1/4"	106 hours
35 1/2"	35 1/2"	106 1/2 hours
35 3/4"	35 3/4"	107 hours
36"	36"	108 hours
36 1/4"	36 1/4"	109 hours
36 1/2"	36 1/2"	109 1/2 hours
36 3/4"	36 3/4"	110 hours
37"	37"	111 hours
37 1/4"	37 1/4"	112 hours
37 1/2"	37 1/2"	112 1/2 hours
37 3/4"	37 3/4"	113 hours
38"	38"	114 hours
38 1/4"	38 1/4"	115 hours
38 1/2"	38 1/2"	115 1/2 hours
38 3/4"	38	