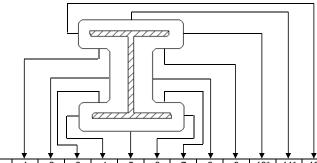


### SFRM REPORT ON BEAM OR COLUMN ASTM E605/E736

**Project Name:** The Park Danforth

Project Number: 14-0065.2

Client: The Park Danforth
SFRM Supplier: Isolatek International
SFRM Material: Cafco Blaze-Shield II
SFRM Installer: Northern Plasterwork
Installation Date: Week of 5/2/16



					. ♦	. ♦	. ♦	. ♦	. ♦	. ♦	. ♦	. ♦	. ♦	\	. ♦	. ♦		Averages	
Floor No.	Column/Beam No.	Туре	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th Framing	B.3-line (+10) from 1.5 to 1.8-line	W10x17	5/6/16	0.938	1.188 1.125	1.313 0.813				1.250 1.313	2.375 2.500						1.098	1.110	1.101
Floor No.	Column/Beam No.	Туре	Test Date	Spec.		2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	B to C-line on 1.8-	W18x60	5/6/16		0.750	1.000	0.875	0.563	1.063	0.563	1.375	1.313	1.000				0.884	0.594	0.820
Framing	line	VV 10X00	3/0/10		0.750	0.625	1.250	0.625	1.000	0.625	1.500	1.125	1.063				0.004	0.554	0.020
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	B.3-line from 2 to 3-	W16x26	5/6/16	0.938	2.000	1.000	1.750	1.313	1.000	1.250	1.625	0.938	2.000				1.081	1.110	1.087
Framing	line	WIOXZO	5/5/10		1.000	0.750	1.375	0.875	1.125	1.250	1.688	1.000	1.250				1.110	1.00	
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	B.3-line (+10) from 3	W16x26	5/6/16	0.938	1.125	1.500	1.625	1.000	1.063	0.750	1.750	0.750	0.813				1.045	0.875	1.007
Framing	to 4-line	VV 10X20	3/0/10		0.938	1.125	1.625	0.938	0.938	0.813	1.625	0.750	1.188				1.04	0.073	1.007
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	B-line from 4 to 5-	W16x26	5/6/16	0.938	1.375	0.813	1.688	1.313	1.313	1.000	1.625	1.250	1.125				1.134	1.141	1.136
Framing	line	VV 10X20	3/0/10		1.063	1.000	1.500	1.188	1.188	1.250	1.875	1.625	1.250				1.134	1.141	1.130
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	Beam from column	W18x106	5/6/16	0.500	1.000	0.625	1.063	1.063	1.750	1.000	0.813	1.000	1.188				0.728	0.750	0.733
Framing	B/5 to C/4.5	VV 10X 100	3/0/10		1.063	0.563	1.250	0.875	2.000	0.938	0.875	1.000	1.063				0.720	0.730	0.733

<sup>\*</sup> Not required for beams

ASTM E-605 8.1.2.1 For the purpose of averaging measurements, any measurement 6 mm (1/4 in.) or more, over the required design thickness, shall be recorded as the design thickness plus 6 mm. (Averages reflect ASTM guidelines). No individual measured thickness shall be more than 6 mm less, or more than 25 % less, than the required design thickness.

ASTM E-605 8.1.2.1 Note 1- Specific fire resistance rating criteria for beams, trusses, and columns may allow for a reduced thickness on flange tips. These thicknesses are to be averaged apart from other sections of the structural member.

#### **DENSITY**

Test	Framing	Member	Member	Thickness	Area	Density	Specification
Date	Level	Type	Location	(in)	(in <sup>2</sup> )	(pcf)	(pcf)
5/6/16	3rd Floor	W10x17	B.3-C, 1.5	0.786	48.000	21	15
5/6/16	3rd Floor	5x5x1/4	BF-2	1.563	48.000	19	15

### ADHESION/COHESION

l est	Framing	Member	Member	Failure	Force	Bond	Specification
Date	Level	Type	Location	Type	(lbs)	(psf)	(psf)
5/17/16	3rd Floor	W10x17	B.3-C, 1.5	cohesion	9	156	150
5/24/16	3rd Floor	5x5x1/4	BF-2	cohesion	11	191	150

Comments: Cohesion test at BF-2 failed on 5/17/16, possible over-spray, so scraped off surface 1/4 inch, reset and retested on 5/24/16.

Sampled by: KBG Reviewed by: RED

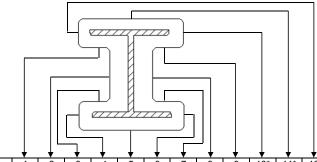


# SFRM REPORT ON BEAM OR COLUMN ASTM E605/E736

Project Name: The Park Danforth

Project Number: 14-0065.2

Client: The Park Danforth
SFRM Supplier: Isolatek International
SFRM Material: Cafco Blaze-Shield II
SFRM Installer: Northern Plasterwork
Installation Date: Week of 5/2/16



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Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	C-line from 4 to 4.5-	W10x17	5/6/16	0.938					0.938	1.063	1.813	1.000					1.076	1.141	1.091
Framing	line				0.875	1.563	1.875	1.188	1.000	1.125	1.938	0.938	1.438						
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	C to D-line on 2.5-	W16x26	5/6/16	0.938	0.875	0.625	1.750	0.813	1.125	0.813	1.625	0.813	1.063				0.991	0.781	0.945
Framing	line	WIOXEG	3/3/10		0.813	0.750	1.500	0.750	1.063	0.750	1.750	0.813	1.313				0.551	0.701	0.540
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	C-line from 3 to 4-	W16x26	5/6/16	0.938	1.500	0.813	1.625	0.750	0.750	1.250	1.750	1.000	1.125				1.032	0.922	1.007
Framing	line	VV 10X20	3/0/10		1.625	0.750	1.500	0.750	0.750	1.000	1.500	1.250	0.938				1.002 0.322	1.007	
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	C.9-line (-4) from	W16x31	5/6/16	0.875	0.938	0.813	1.375	0.813	1.000	0.750	1.125	0.750	1.000				0.964	0.797	0.927
Framing	1.7 to 2.5-line	WIOXSI	3/0/10		0.875	0.750	1.313	0.813	0.938	0.813	1.500	0.813	1.313				0.964	0.797	0.927
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	B-line from 1 to 1.8-	W16x26	5/6/16	0.938	0.938	1.063	1.125	0.750	0.750	0.813	1.688	0.938	0.875				0.982	0.797	0.941
Framing	line	VV 10X20	3/0/10		1.063	0.750	1.563	0.750	1.125	0.875	1.625	0.813	0.750				0.302	0.737	0.341
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	A.1-line (+4) from 1	W16x31	5/6/16	0.875	1.125	0.938	1.375	0.688	0.688	0.750	1.313	0.813	0.688				0.929	0.813	0.903
Framing	to 1.8-line	VV 10X31	3/0/10		1.063	0.938	2.125	1.000	0.688	0.813	1.438	0.688	0.875				0.525	0.013	0.903

<sup>\*</sup> Not required for beams

ASTM E-605 8.1.2.1 For the purpose of averaging measurements, any measurement 6 mm (1/4 in.) or more, over the required design thickness, shall be recorded as the design thickness plus 6 mm. (Averages reflect ASTM guidelines). No individual measured thickness shall be more than 6 mm less, or more than 25 % less, than the required design thickness.

ASTM E-605 8.1.2.1 Note 1- Specific fire resistance rating criteria for beams, trusses, and columns may allow for a reduced thickness on flange tips. These thicknesses are to be averaged apart from other sections of the structural member.

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Test	Framing	Member	Member	Thickness	Area	Density	Specification
Date	Level	Type	Location	(in)	(in <sup>2</sup> )	(pcf)	(pcf)

#### ADHESION/COHESION

Test Date	Framing Level	Member Type	Member Location	Failure Type	Force (lbs)	Bond (psf)	Specification (psf)

Comments: Sampled by: KBG Reviewed by: RED

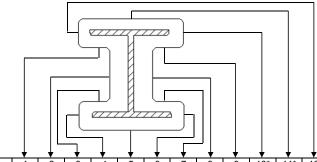


# SFRM REPORT ON BEAM OR COLUMN ASTM E605/E736

**Project Name:** The Park Danforth

Project Number: 14-0065.2

Client: The Park Danforth
SFRM Supplier: Isolatek International
SFRM Material: Cafco Blaze-Shield II
SFRM Installer: Northern Plasterwork
Installation Date: Week of 5/2/16



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Floor No.	Column/Beam No.	Туре	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	Column C/1.7	W10x49	5/6/16	1.250	2.750	1.813	1.625	1.250			2.125					1.000	1.461	1.156	1.359
Framing					2.500	2.250		1.313			1.875		2.250			1.000			
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	Column C/4.5	W10x39	5/6/16	1.438	2.375	2.000	1.938	1.750	1.313	2.000	1.875	1.625	1.875	2.063	1.875	1.188	1.614	1.618	1.615
Framing	Coldinii Ci iic		0,0,10		2.563	1.875	1.875	2.000	1.438	2.063	2.250	1.188	2.000	1.875	2.000	1.625			
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	Column B/4	W10x54	5/6/16	1.250	1.375	1.750	1.813	1.625	1.625	1.625	1.875	1.625	1.500	1.375	1.625	1.563	1.488	1.484	1.487
Framing	Oolulliii B/4	WIOXOT	5/0/10		1.438	1.875	1.875	1.625	1.875	1.625	1.813	1.688	1.750	1.500	1.563	1.500		1.404	1.407
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th	Column B/3	W10x54	5/6/16	1.250	2.250	1.625	1.625	1.625	1.250	1.813	2.313	2.125	1.875	1.313	1.688	2.000	1.477	1.461	1.471
Framing	Column B/O	WIOXOT	5/0/10		2.750	1.750	1.625	1.563	1.813	1.875	2.125	1.813	2.000	1.375	1.375	2.000	1.477	1.401	1.471
Floor No.	Column/Beam No.	Type	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th																			
Framing																			
Floor No.	Column/Beam No.	Туре	Test Date	Spec.	1	2	3	4	5	6	7	8	9	10*	11*	12*	Faces	Flange Tips	Total
Third Floor / 4th																			
Framing																			

<sup>\*</sup> Not required for beams

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ASTM E-605 8.1.2.1 Note 1- Specific fire resistance rating criteria for beams, trusses, and columns may allow for a reduced thickness on flange tips. These thicknesses are to be averaged apart from other sections of the structural member.

#### **DENSITY**

Test	Framing	Member	Member	Thickness	Area	Density	Specification
Date	Level	Type	Location	(in)	(in <sup>2</sup> )	(pcf)	(pcf)

#### ADHESION/COHESION

Test Date	Framing Level	Member Type	Member Location	Failure Type	Force (lbs)	Bond (psf)	Specification (psf)

Comments: Sampled by: KBG
Reviewed by: RED