

# Fort Needham—interpretive elements

FEBRUARY 6, 2017

Item No. 9.1.1



Fort Needham

title Interpretive elements

date February 6, 2017

page 01

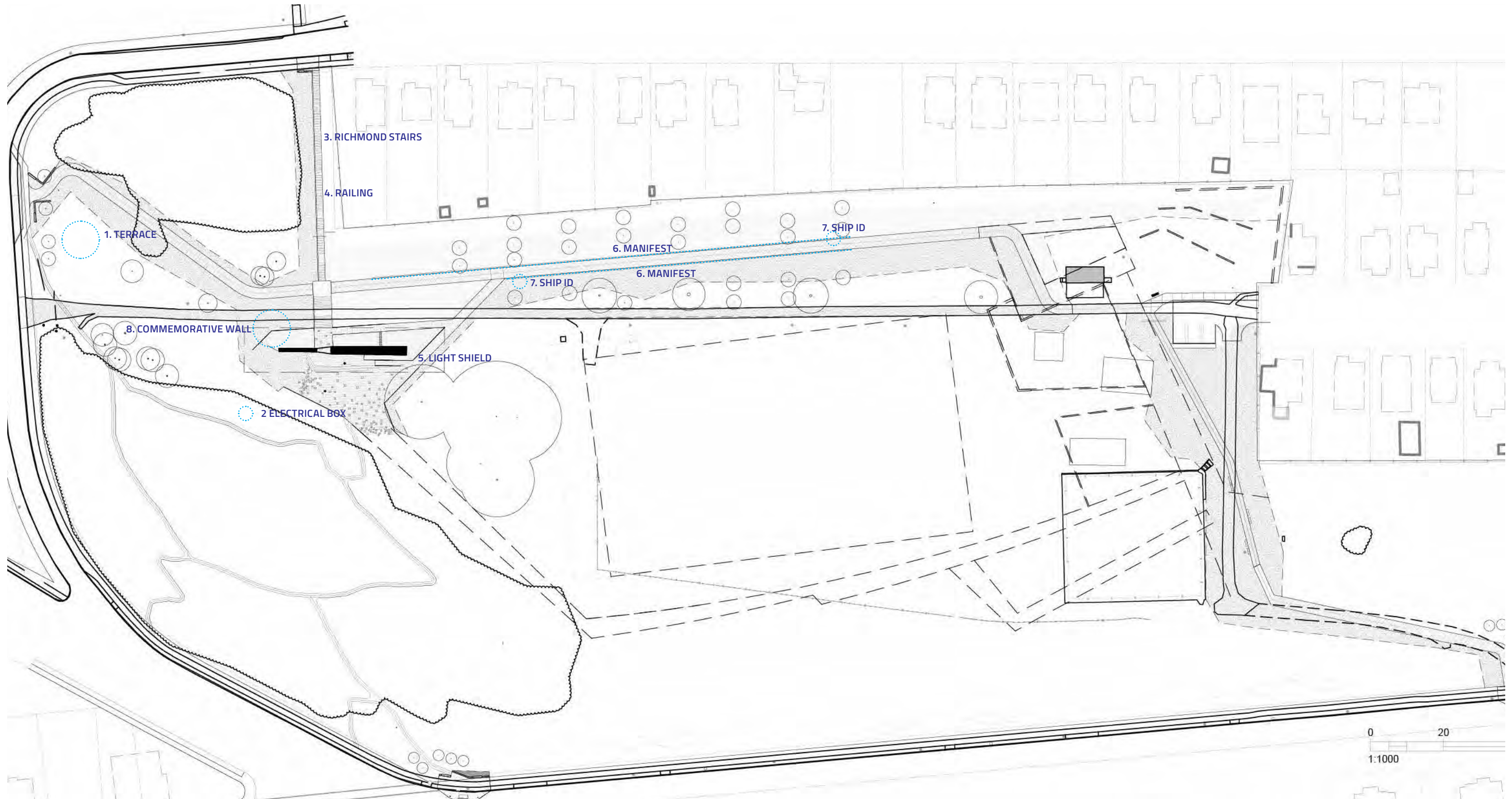


Looking North toward Pier 8  
from Hillis Foundry  
After Great Explosion, Halifax Dec. 6, 1917



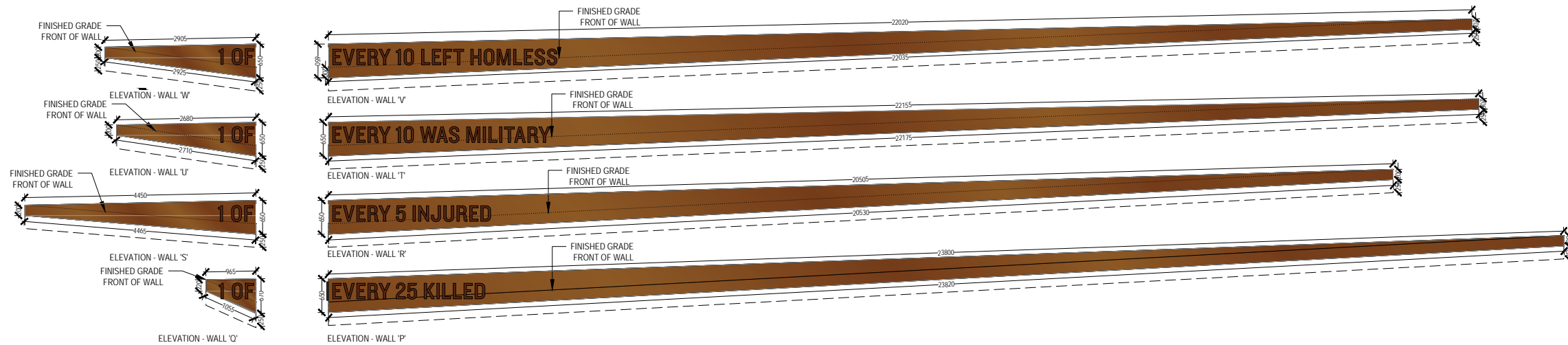
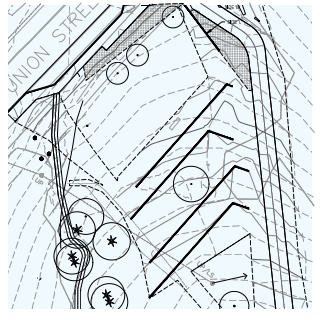
# Fort Needham—interpretive elements

## Location plan



# 1. Terraces

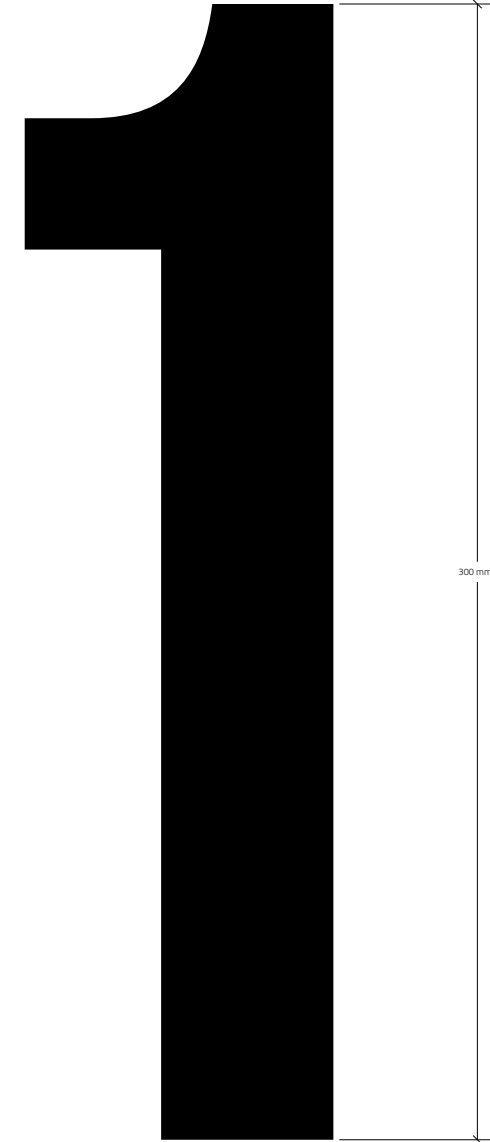
## "One on every..." (memorial walk)



CORTEN TERRACE AT UNION STREET ENTRANCE (WALLS P-W)

### THEME

theme "1 of every..."  
 rationale Numeric information often lacks the visceral punch necessary for compelling interpretation. This node relates several essential statistics essential to contextualizing what the explosion did to the city. What kind of place was the city in 1917, and how was the population affected? When the data are compared to the unit of one—a single individual—it's easy for the visitor relate to the statistics.



300 mm

### DESIGN INTENT

content based on a population in Halifax of approximately 50,000 in 1917<sup>1</sup>, we had proposed the following (seen above):

- 1 of every 10 left homeless<sup>2</sup>
- 1 of every 10 residents was military<sup>3</sup>
- 1 of every 5 injured<sup>4</sup>
- 1 of every 25 killed<sup>5</sup>

### SOURCE(S)

1. per Fifth Census of Canada (1911): 46,619 in Halifax City, 5201 in Dartmouth Town, and 595 naval residents.
2. "6,000 people were left without shelter" from the Maritime Museum of the Atlantic's Halifax Explosion Infosheet, <https://maritimemuseum.novascotia.ca/what-see-do/halifax-explosion/halifax-explosion-infosheet>
3. "Counting the 323 British Army recruits in the city, nearly 5,000 soldiers found themselves in Halifax at the end of 1917, representing about 10 percent of the population of the city." Armstrong, J.G. *The Halifax Explosion and the Royal Canadian Navy*. 2002. UBC Press.
4. the no. of injuries has never been confirmed, but is generally quoted as 9,000–12,000 people <http://www.thecanadianencyclopedia.ca/en/article/halifax-explosion/>

5. number of deaths from the Halifax Explosion Remembrance Book <https://novascotia.ca/archives/remembrance/default.asp>

### ADDITION

The total population of 50,000 was to be included as part of the interpretive marker planned for the Union Street entrance to the park. Now that the marker is out of scope, the population is no longer made clear within this element. 1 in 5 Canadians? Nova Scotians? The element now lacks context which, in an earlier plan, would have been introduced at the entrance.

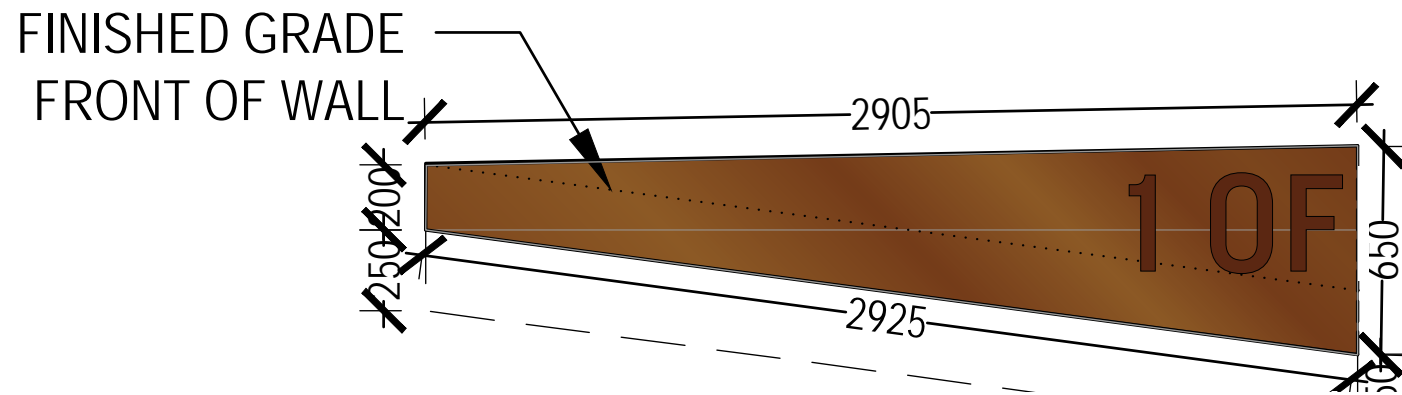
We suggest either: ensuring content (suggested below) is included on the explosion marker to contextualize this element; or adding an element here to frame and emotionalize the content.

content to contextualize the data, we propose the following new content in the form of a design element or added to the marker:

- "In 1917 Halifax was home to approximately 50,000 men, women, and children"
- alternate alternatively, to address the transient military population:
  - "In 1917 Halifax was home to approximately 50,000 residents", or
  - "In 1917 Halifax had a population of approximately 50,000 people"

# 1. Terraces

## "One on every..." (memorial walk)





# 2. Electrical Box

## Electrical box



### THEME

theme rebuild

rationale an electrical box is in clear view from the memorial plaza. To situate the visitor in the time and place—and to disguise the stainless steel structure—we wrap the utility-box with images associated with the aftermath of the explosion.

A potential image is a well-known poster intended to inspire Haligonians to band together and help the relief effort.

### DESIGN INTENT

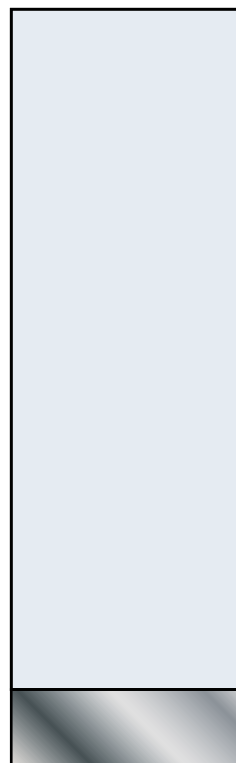
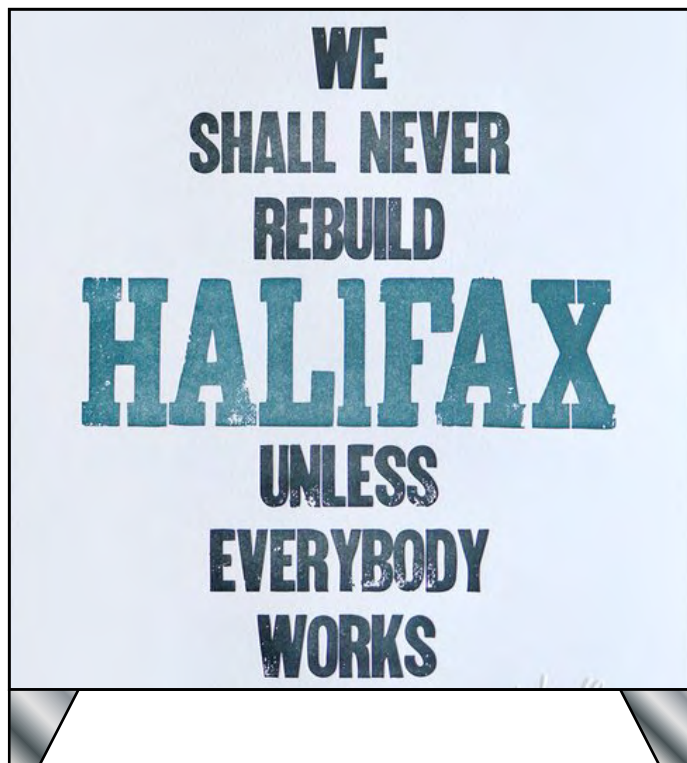
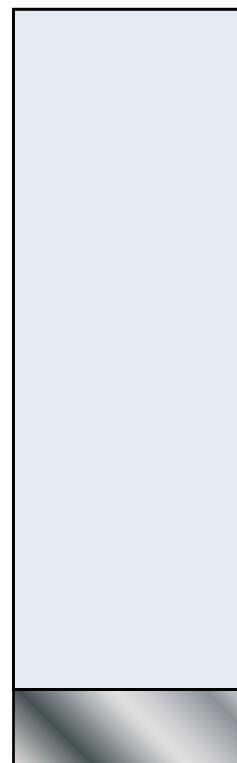
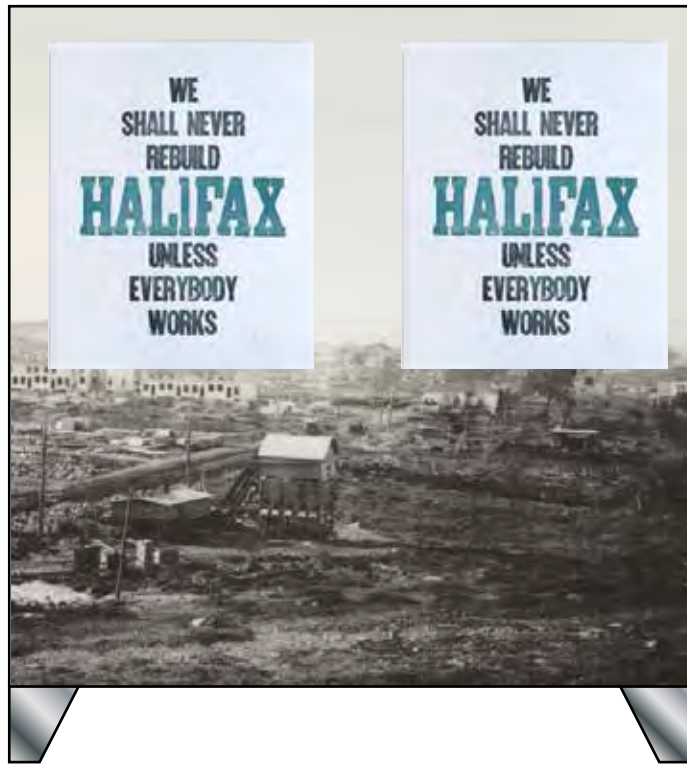
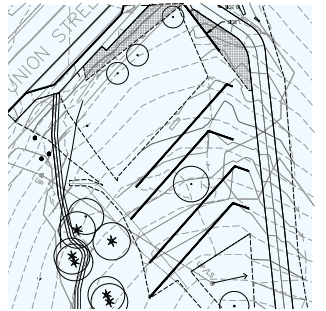
content If an original of the poster exists in the archives, we may use a scanned version as the wrap. If no original of the poster exists, we may license the high-quality letterpress design produced by Inkwell Boutique<sup>1</sup> or create a new modern reimagination of the historic poster.<sup>2</sup> In a recreation—inkwell or otherwise—it is important to contextualize the recreation with a caption.

We suggest a background image, however numerous options are possible (at right).

### SOURCE(S)

1. Inkwell's letterpress design: <https://inkwellboutique.ca/products/rebuild-halifax-print>
2. Poster appears in this photograph: <https://novascotia.ca/archives/Explosion/archives.asp?ID=32>

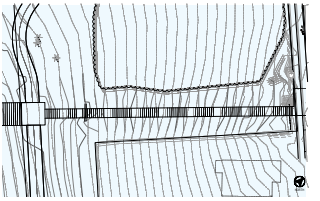
# 2. Electrical Box Electrical box





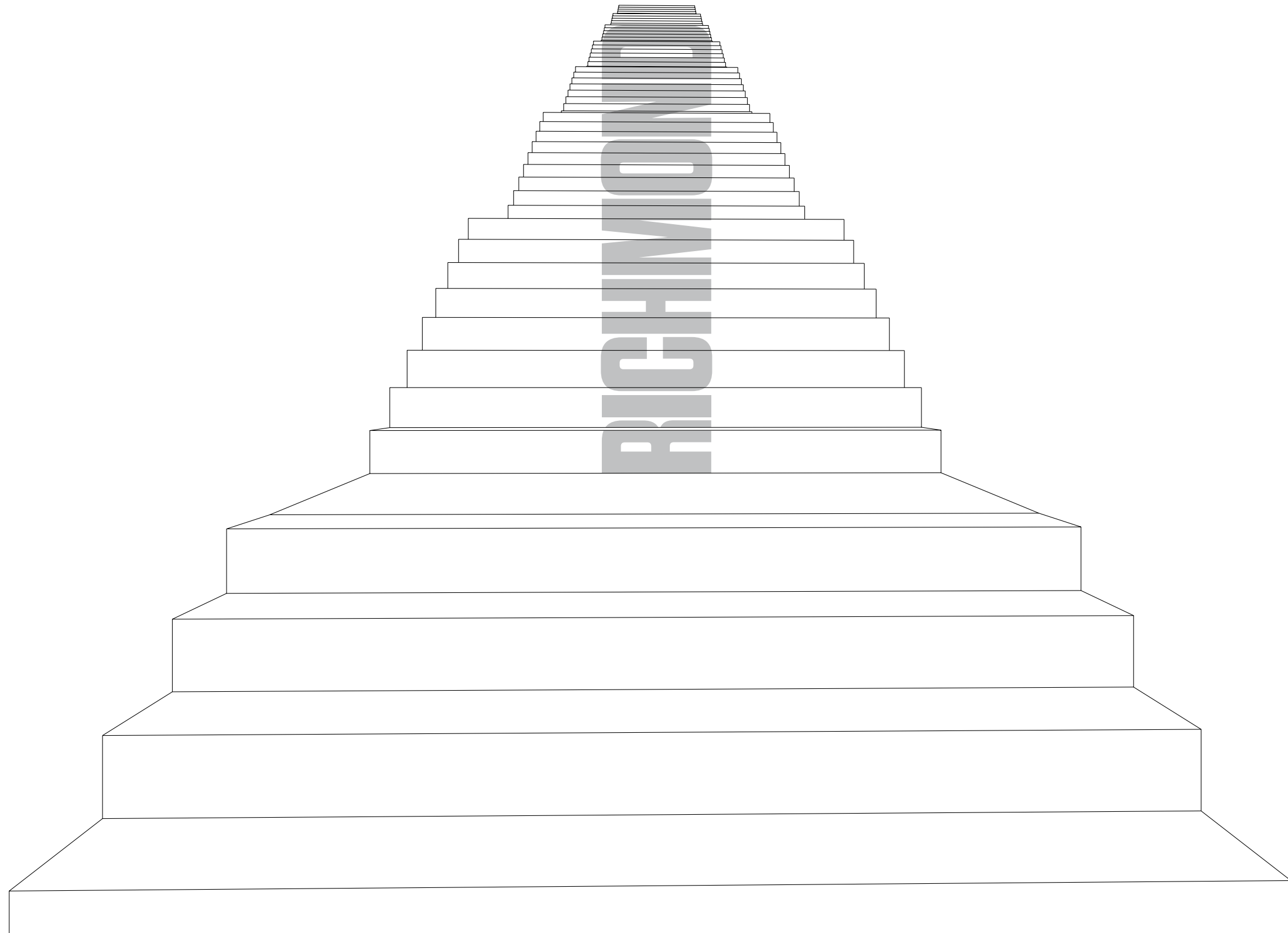
# 3. Stairs

## Richmond Staircase



### THEME

theme community lost  
rationale The now lost  
neighbourhood name of Richmond is preserved in the staircase up Richmond Street. Anamorphic letters leading up to the monument reveal the name Richmond for those standing at the bottom— R-I-C-H-M-O-N-D, one letter per stair. As the visitor ascends, the legibility of the name Richmond slowly dissipates. From the top looking down, the name is not visible at all.

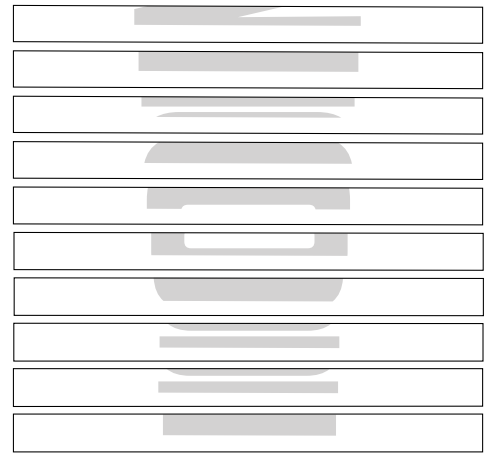


# 3. Stairs

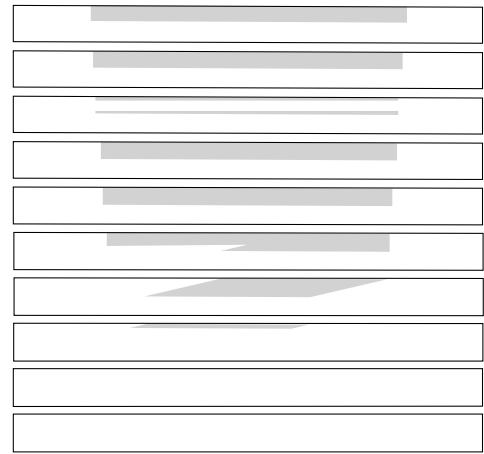
## Richmond Staircase



FLIGHT 3



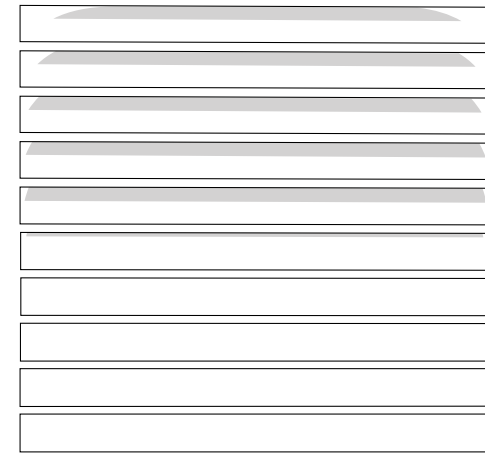
FLIGHT 4



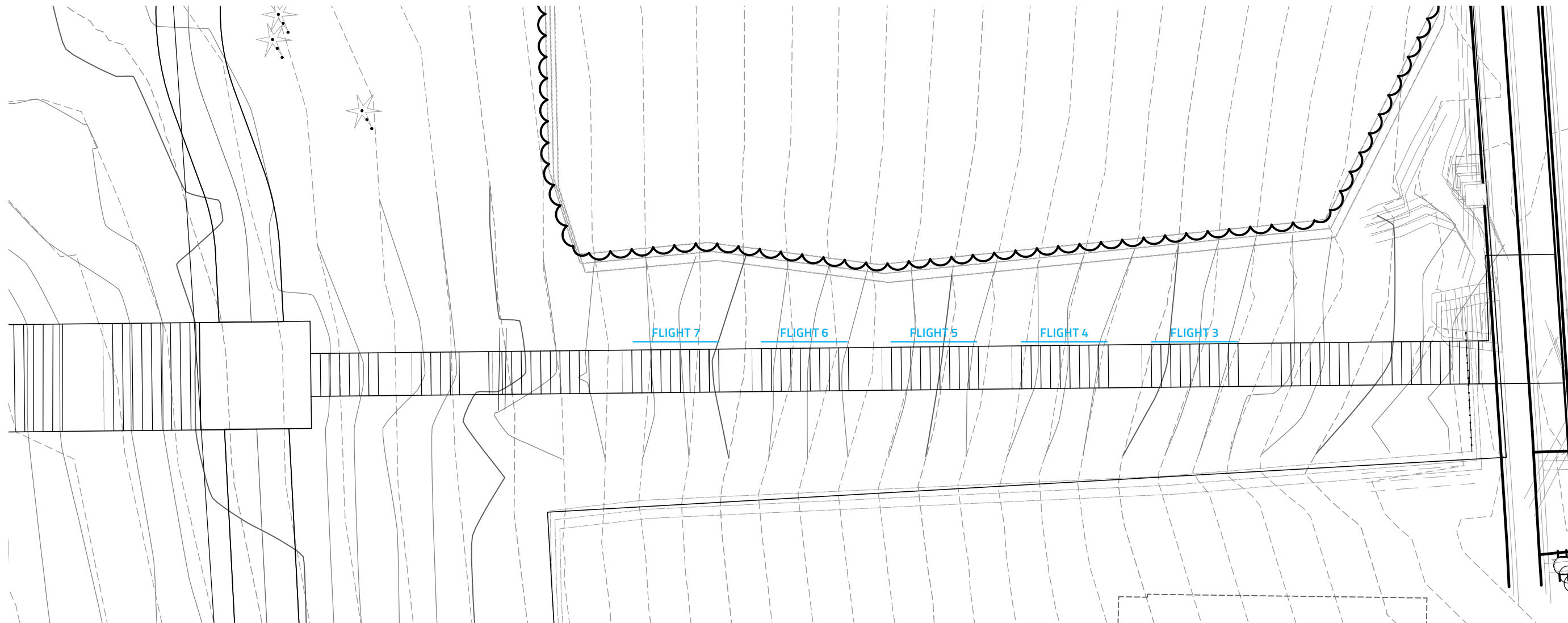
FLIGHT 5



FLIGHT 6



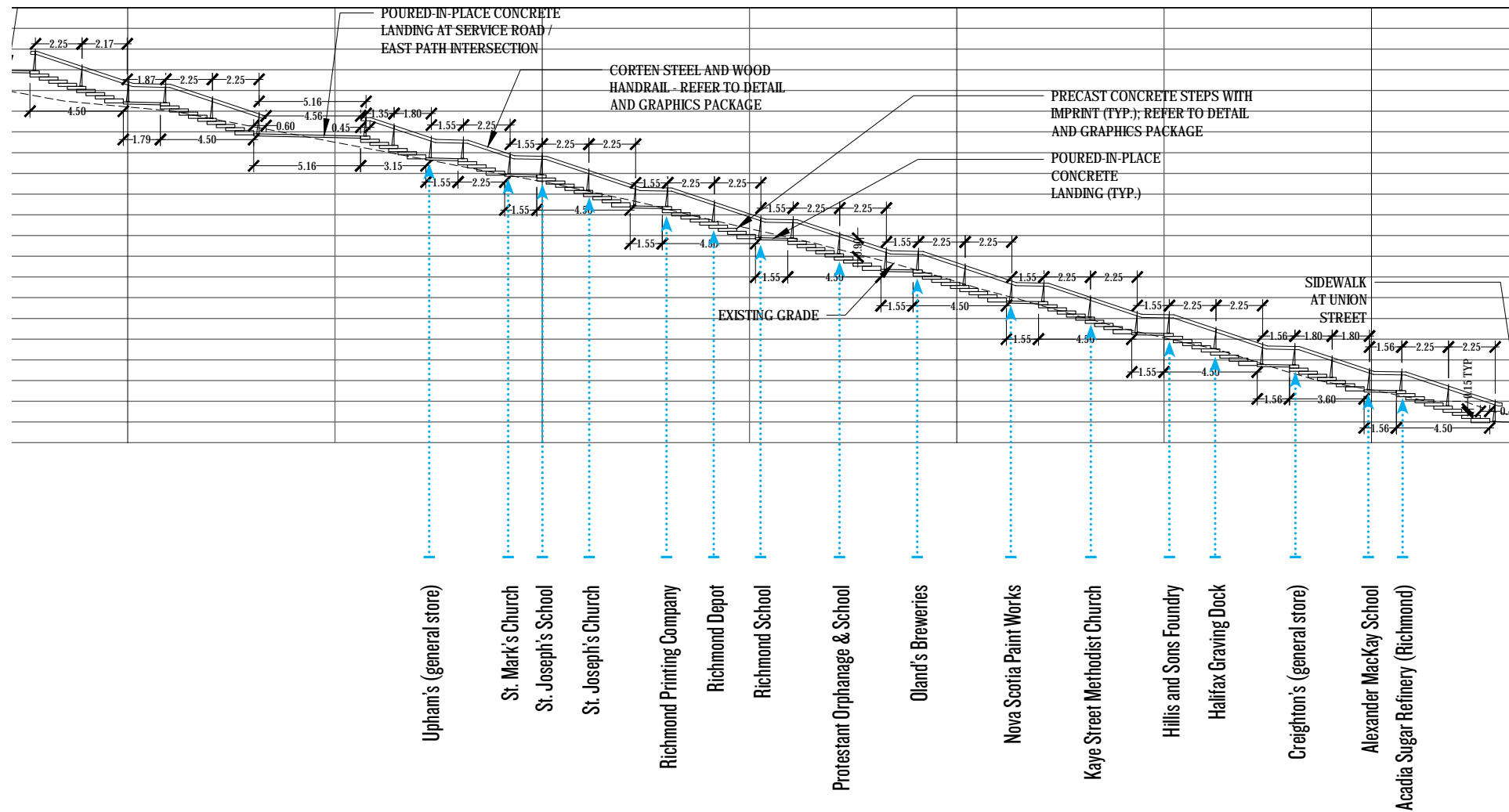
FLIGHT 7





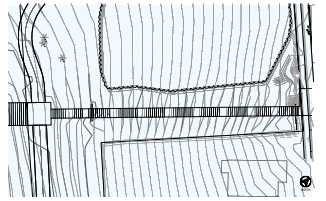
# 4. Railings

## Community Lost Railing



PROTESTANT ORPHANAGE & SCHOOL

7mm minimum gap/lot size



### THEME

theme community lost  
 rationale The vertical parts of the handrail of the staircase (the balusters) list important neighbourhood businesses and institutions which were lost to the explosion. The list is not exhaustive list, but contains major businesses and institutions known to be operating in Richmond in 1917.

### DESIGN INTENT

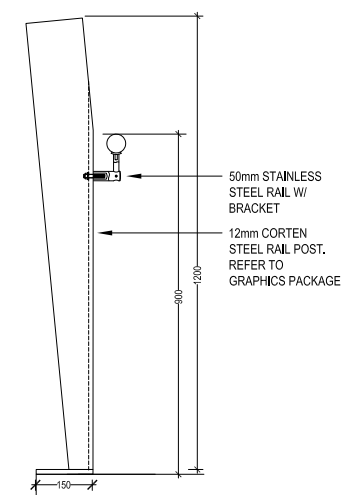
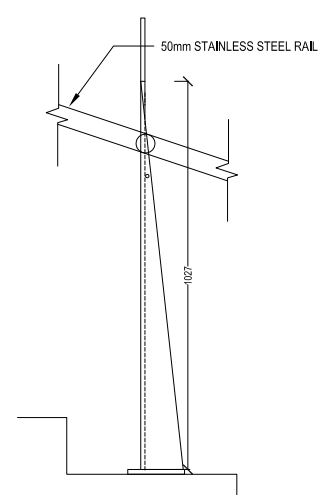
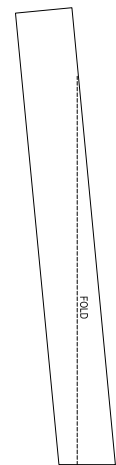
content The following business and institutions are proposed:  
 Upham's (general store)  
 St. Mark's Church  
 St. Joseph's School  
 St. Joseph's Church  
 Richmond Printing Company  
 Richmond Depot  
 Richmond School  
 Protestant Orphanage & School  
 Oland's Breweries  
 Nova Scotia Paint Works  
 Kaye Street Methodist Church  
 Hillis and Sons Foundry  
 Halifax Graving Dock  
 Creighton's (general store)  
 Alexander MacKay School  
 Acadia Sugar Refinery (Richmond)

### SOURCE(S)

1. Kitz, J. and Payzant, J. (2015). December 1917. Nimbus Publishing.
2. Plan showing devastated area of Halifax City, N.S. <https://novascotia.ca/archives/maps/archives.asp?ID=71> Morton, S. (1990).
3. Men and Women in a Halifax Working-Class Neighbourhood in the 1920s. Dalhousie University.

### NOTE

1. We propose type on 16 balusters. In the current design, roughly every second vertical element receives a name. In keeping with this approach, we can add up to two more named balusters.
2. The current design allows for fewer balusters. Every second or third vertical could receive a name, thus the design can handle a reduction in the number of names.
3. The criteria for choosing names was based on known businesses, organizations, and institutions as found in the three sources previously mentioned. We are open to any other criteria. Following these parameters, only 16 names are available.
3. Type style (condensed), type size, and letter-spacing, is determined by longest line length: Protestant Orphanage & School Kaye Street Methodist Church are generally the longest.



# 4. Railings

## Richmond Railings

UPHAM'S GENERAL STORE

ST. MARK'S CHURCH

ST. JOSEPH'S SCHOOL

ST. JOSEPH'S CHURCH

RICHMOND'S PRINTING COMPANY

RICHMOND DEPOT

RICHMOND SCHOOL

PROTESTANT ORPHANAGE & SCHOOL

OLAND'S BREWERIES

NOVA SCOTIA PAINT WORKS

KAYE STREET METHODIST CHURCH

HILLIS AND SONS FOUNDRY

HALIFAX GRAVING YARD

CREIGHTON'S GENERAL STORE

ALEXANDER MAUKAY SCHOOL

ACADIA SUGAR REFINERY



# 5. Light Shield

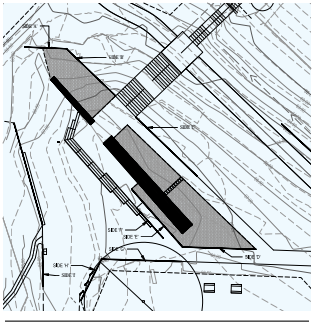
## Morse Code Light Shield

..... - - - - -  
Hold up the train.

- - - - -  
- - - - -  
Ammunition ship afire in harbor making for Pier 6 and will explode.

- - - - -  
Guess this will be my last message.

- - - - -  
Good-bye boys.



### THEME

title Memorial light shield  
rationale We subtly interpret  
Vincent Coleman's selfless act to stop  
trains entering Halifax just before the  
explosion by incorporating his telegraph  
message into a morse-code light show.

### DESIGN INTENT

content [as morse code]: "Hold up the train. Ammunition ship  
afire in harbor making for Pier 6 and will explode. Guess this will be my  
last message. Good-bye boys."

"06 December 1917, 8:XX am—Vince Coleman"

content The time and date, if available, give context to the  
timing of the message. The name, Vince Coleman, suggests there is  
meaning behind the pattern of dots and dashes.

### SOURCE(S)

1 Maritime Museum of the Atlantic [https://  
maritimemuseum.novascotia.ca/what-see-do/halifax-explosion/  
vincent-coleman-and-halifax-explosion](https://maritimemuseum.novascotia.ca/what-see-do/halifax-explosion/vincent-coleman-and-halifax-explosion)

# 5. Light Shield

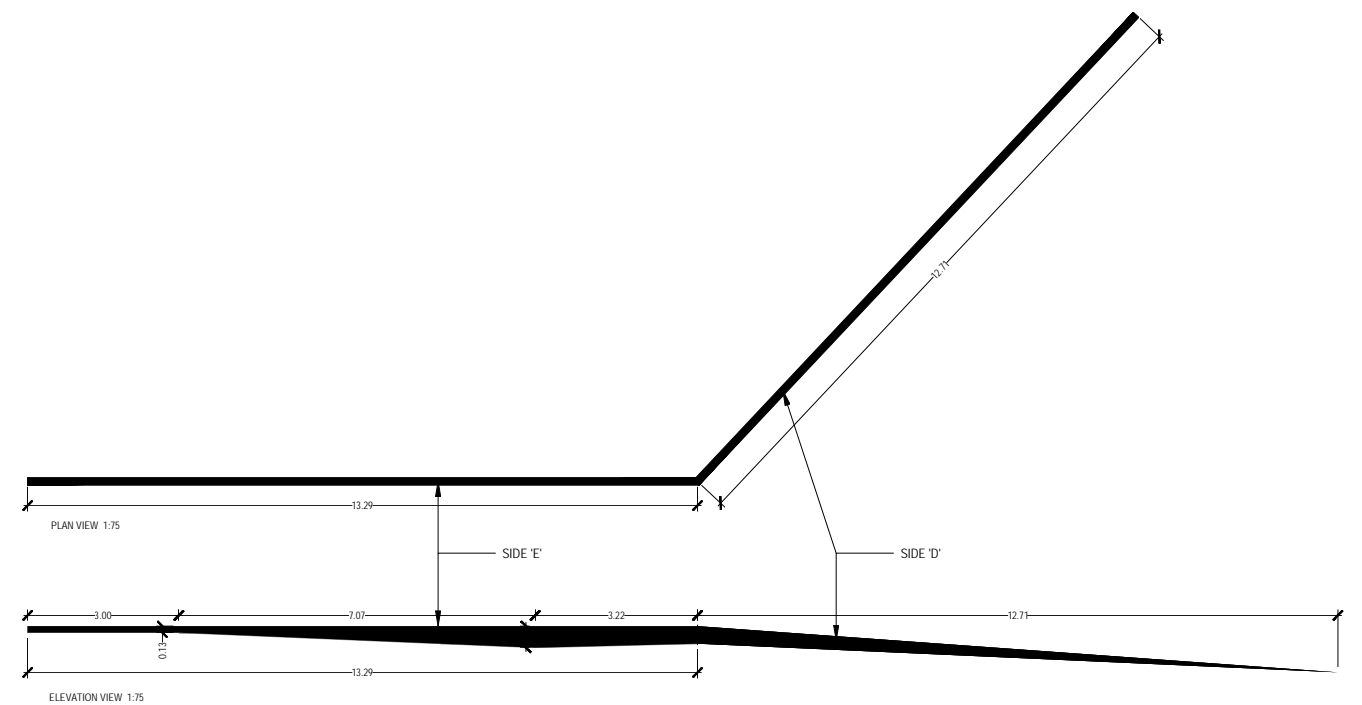
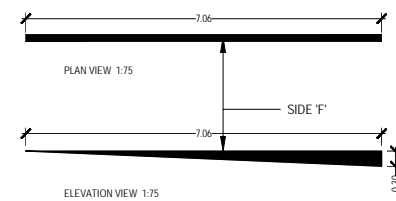
## Morse Code Light Shield

06 DECEMBER 1917, 8:XXAM—VINCE COLEMA

[HOLD UP THE TRAIN. AMMUNITION SHIP AFIRE IN HARBOR MAKING FOR PIER 6 AND WILL EXPLODE. GUESS THIS WILL BE MY LAST MESSAGE. GOOD-BYE BOYS.]

06 DECEMBER 1917, 8:XXAM—VINCE COLEMAN

ELEVATION VIEW 1:75





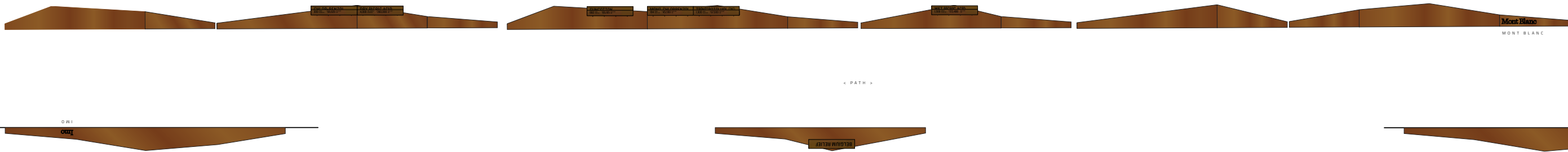
# 5. Light Shield

## Morse Code Light Shield



# 6. Manifest

## Ship cargo manifest



### THEME

theme Ship cargo manifest  
rationale Along the main path, walls with benches contain information about the cargo which was aboard the Mont-Blanc. Each bench will list a different material which appeared in the ship's manifest, including picric acid, trinitrotoluol, benzene and others whose reaction resulted in the explosion.

### DESIGN INTENT

content To provide enough information to indicate the size of the vessels, and the contents they were carrying (Mont Blanc).  
note Design options to be presented at the next meeting.

### SOURCE(S)

1 Specifications as listed in the US Treasury Department, Shipping Export Declarations for the Mont-Blanc, Nov 30 and Dec 3, 1917 (National Archives at New York City)



# 6. Manifest

## Ship cargo manifest

CHLOR-BENZOL	DRY PICRIC ACID	GUNCOTTON	MONO-CHLORBENZOL
	4,000 SMALL BARRELS 400,000 LBS \$ 350,000 VALUE (1917) USD		
	4,000 SMALL BARRELS 400,000 LBS \$ 260,000 VALUE (1917) USD		
300 DRUMS 294,000 LBS \$ 58,826 VALUE (1917) USD	4,000 SMALL BARRELS 400,000 LBS \$ 350,000 VALUE (1917) USD	682 CASES 124,124 LBS \$ 65,165 VALUE (1917) USD	194 DRUMS 198,045 LBS \$ 45,550 VALUE (1917) USD

TRINITROTOLUOL (TNT)	WET PICRIC ACID	BELGIUM RELIEF
	500 SMALL BARRELS 50,000 LBS \$ 24,750 VALUE (1917) USD	
500 SMALL BARRELS 50,000 LBS \$ 24,750 VALUE (1917) USD	1,400 BARRELS 515,160 LBS \$ 425,007 VALUE (1917) USD	
	5,950 BARRELS 2,240,031 LBS \$ 1,344,019 VALUE (1917) USD	
2,500 SMALL BARRELS 250,000 LBS \$ 123,750 VALUE (1917) USD	490 BARRELS 224,010 LBS \$ 168,261 VALUE (1917) USD	
	490 BARRELS 223,749 LBS \$ 121,224 VALUE (1917) USD	
1,500 CASES 150,000 LBS \$ 67,500 VALUE (1917) USD	1,500 BARRELS 330,000 LBS \$ 172,488 VALUE (1917) USD	

# 6. Manifest

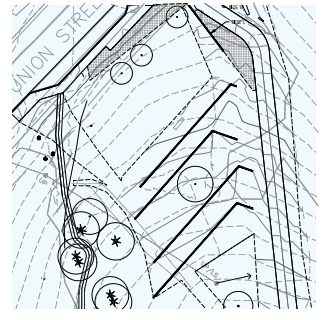
## Ship cargo manifest

shipper	product	Product #	marks	Lot #	pkg	# pkg	net weight (lbs)	net (Mg)	% by weight	kg/unit	producer	source	date	license	consignee	via	value USD	value Franc	exch	\$/Mg
G.W. Sheldon & Co.	trinitrotoluol	289	F-1870-P-98	40253	cases	1500	150000	68	2.6%	45	Hercules Powder Co.	Hercules CA	1917-11-30	RAC14	French gov.t	rail	\$67,500.00	174,750.00 F	0.386266094	\$992.08
G.W. Sheldon & Co.	chlor-benzol	120	F-448-P-33	40124	drums	300	294000	133	5.0%	445	Hooker Electrochemical Co.	Niagara Falls NY	1917-12-03	RAC14	French gov.t	rail	\$58,826.00	346,488.00 F	0.169777886	\$441.12
G.W. Sheldon & Co.	mono-chlorbenzol	120	FO-2129-P-108	40049	drums	194	198045	90	3.4%	463	Dow Chemical Co.	Midland MI	1917-12-03	RAC14	French gov.t	rail	\$45,550.00	237,979.00 F	0.191403443	\$507.06
G.W. Sheldon & Co.	wet picric acid	112	FO-2082-P-106	40313	barrels	1500	330000	150	5.6%	100	New England Mfg. Co.	Woburn MA	1917-12-03	RAC14	French gov.t	rail	\$172,488.00	391,698.00 F	0.440359665	\$1,152.34
G.W. Sheldon & Co.	guncotton	289	F-333-P-28	50877	cases	682	124124	56	2.1%	83	Maas & Waldstein Co.	Newark NJ	1917-12-03	RAC14	French gov.t	rail	\$65,165.00	248,930.00 F	0.26178042	\$1,157.43
Bowring and Co.	wet picric acid	112	FO-2163-P-113	1/490	barrels	490	223749	101	3.8%	207			1917-11-30	RAC14	The Special Agent of the Department of Military Transit of the Port of Bordeaux	? (rail)	\$121,224.00	257,434.00 F	0.470893511	\$1,194.43
Bowring and Co.	wet picric acid	112	F-565-P-31	4980/5469	barrels	490	224010	102	3.8%	207			1917-11-30	RAC14	The Special Agent of the Department of Military Transit of the Port of Bordeaux	? (rail)	\$168,261.00	257,539.00 F	0.653341824	\$1,655.96
Bowring and Co.	wet picric acid	112	FO-2039-P-107	13306/14705 16106/17855 18556/21355	barrels	5950	2240031	1016	38.3%	171			1917-11-30	RAC14	The Special Agent of the Department of Military Transit of the Port of Bordeaux	? (rail)	\$1,344,019.00	2,856,874.00 F	0.470450919	\$1,322.77
Bowring and Co.	wet picric acid	112	F-415-P-31	16206/17605	barrels	1400	515160	234	8.8%	167			1917-11-30	RAC14	The Special Agent of the Department of Military Transit of the Port of Bordeaux	? (rail)	\$425,007.00	656,227.00 F	0.647652413	\$1,818.81
Bowring and Co.	trinitrotoluol	289	FO-2121-P-114	7001/9500	small barrels	2500	250000	113	4.3%	45			1917-11-30	RAC14	The Special Agent of the Department of Military Transit of the Port of Bordeaux	? (rail)	\$123,750.00	285,000.00 F	0.434210526	\$1,091.29
Bowring and Co.	dry picric acid	112	F-240-P-26	76501/80500	small barrels	4000	400000	181	6.8%	45			1917-11-30	RAC14	The Special Agent of the Department of Military Transit of the Port of Bordeaux	? (rail)	\$350,000.00	450,000.00 F	0.777777778	\$1,929.04
Bowring and Co.	dry picric acid	112	F-1562-P-90	4401/4800	small barrels	4000	400000	181	6.8%	45			1917-11-30	RAC14	The Special Agent of the Department of Military Transit of the Port of Bordeaux	? (rail)	\$260,000.00	450,000.00 F	0.577777778	\$1,433.00
Bowring and Co.	dry picric acid	112	F-240-P-26	80501/84500	small barrels	4000	400000	181	6.8%	45			1917-11-30	RAC14	The Special Agent of the Department of Military Transit of the Port of Bordeaux	? (rail)	\$350,000.00	450,000.00 F	0.777777778	\$1,929.04
Bowring and Co.	trinitrotoluol	289	FO-2121-P-114	9501/10000	small barrels	500	50000	23	0.9%	45			1917-11-30	RAC14	The Special Agent of the Department of Military Transit of the Port of Bordeaux	? (rail)	\$24,750.00	57,000.00 F	0.434210526	\$1,091.29
Bowring and Co.	wet picric acid	289	FO-2121-P-114	10001/10500	small barrels	500	50000	23	0.9%	45			1917-11-30	RAC14	The Special Agent of the Department of Military Transit of the Port of Bordeaux	? (rail)	\$24,750.00	57,000.00 F	0.434210526	\$1,091.29
						28006	5849119	2653	100.0%	95							\$3,601,290.00	7,176,919.00 F	0.501787745	\$1,357.38



# 7. Ship ID

## Ship specifications



### NOTES

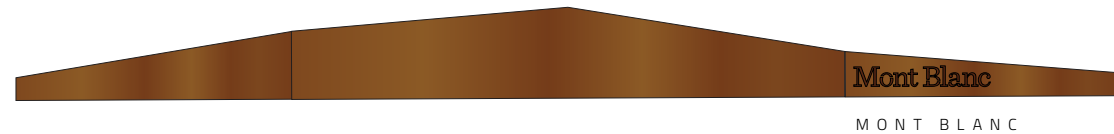
**title** Ship identification  
**rationale** Masts give basic details about the Mont-Blanc and Imo, the ships which caused the explosion. Details include flag, type, location, casualties aboard, and the fate of each craft post-explosion.  
**sources** Maritime Museum of the Atlantic <https://maritimemuseum.novascotia.ca/research/ships-halifax-explosion>

### MONT-BLANC SPECIFICATIONS

**Name** Mont-Blanc  
**Official No.** 173945  
**Signal letters** KHTN  
**Tonnage** 3121 Gross, 2252 Net, 2691 underdeck  
**Dimensions** 320' long, 44.8' breadth, 15.3' deep Forecastle 35', Bridge 76' Poop 30'  
**Built** Middlesboro, Britain  
**Builder** Sir Raylton Dixon & Co. Ltd.  
**Year** 1899  
**Registered port** St. Nazaire, France  
**Owners** Cie Generale Transatlantique  
**Engines** Steam, Triple expansion, Single screw  
**Horsepower** 247 NHP  
**Crew** Captain Aime Le Medec; Halifax Pilot: Francis Mackey  
**Career:** Inbound to Bedford Basin from New York with munitions cargo to join convoy for Bordeaux. Rammed by SS Imo on starboard stem at 8:45 am. Captain and crew abandoned ship and all but one survived. Ship blew up and totally destroyed at 9:05 am.  
**Sources** Lloyd's Register 1916-17; Halifax Explosion Inquiry; Ruffman, Alan Argonauta, Vol. XX, No. 3, July 2003, 9-15; No. 4, October 2003, 12-15; Vol. XXI, No. 1, January, 2004, 3.

### IMO SPECIFICATIONS

**Name** Imo  
**Official No.** 93837  
**Signal Letters** MJGB  
**Name changes** Runic (I) 1889; Tampican 1895; Guvernoren 1920  
**Tonnage** 5043 Gross, 3405 under deck, 3161 Net  
**Dimensions** 430.7' long, 45.2' breadth, 30.3' deep Forecastle 48', Bridge 30', Poop 41'  
**Built** Belfast  
**Builder** Harland & Wolff  
**Year** 1889  
**Registered port** Christiania, Norway  
**Owners** South Pacific Whaling Co.  
**Engines** Steam, triple expansion, single screw  
**Horsepower** 424 NHP  
**Crew** Captain Haakon From, Halifax Pilot William Hayes  
**Career** Built as the White Star cargo liner/livestock carrier Runic (I), later renamed Tampican. Sold and renamed Imo in 1912 as supply ship for whaling operation. Under charter to carry Belgian Relief supplies in 1917. Outbound from Halifax in ballast (empty) to load relief supplies in New York. Collided with munitions ship Mont Blanc. Heavily damaged by blast and driven ashore in Dartmouth. Six men were killed of the crew of 39 aboard. Rebuilt and renamed Guvernuren to serve as whale oil tanker. On November 30, 1921 abandoned off Falkland Islands after running onto the rocks.  
**Sources** Lloyd's Register 1889, 1893, 1916; North Atlantic Seaway, N.R.P. Bonsor, II, 758; White Star, Ray Anderson, 74, 91, 202, 1900; Proceedings of Drysdale Inquiry, p. 253; and additional research by Alan Ruffman



Mont Blanc  
MONT BLANC



Imo  
I M O

### DESIGN INTENT

**content** To relate the scale and volume of contents of the ship, by using a retaining wall as a representation of two ships: the Mont-Blanc and the Imo.

**note** Design options to be presented at the next meeting.

### SOURCE(S)

1 Materials as listed in the Maritime Museum of the Atlantic website: <https://maritimemuseum.novascotia.ca/research/ships-halifax-explosion/mont-blanc>

# 8. Commemorative Wall

## 6 December 1917/2017 wall

### NOTES

title Commemorative wall  
rationale Visible as the visitor approaches the monument from the entrance, the CORten retaining wall will be adorned with text marking the 100 years since the explosion in the form of a date. Above-grade elements will be perforated to ensure visibility through the wall.

