

Fort Needham—interpretive elements

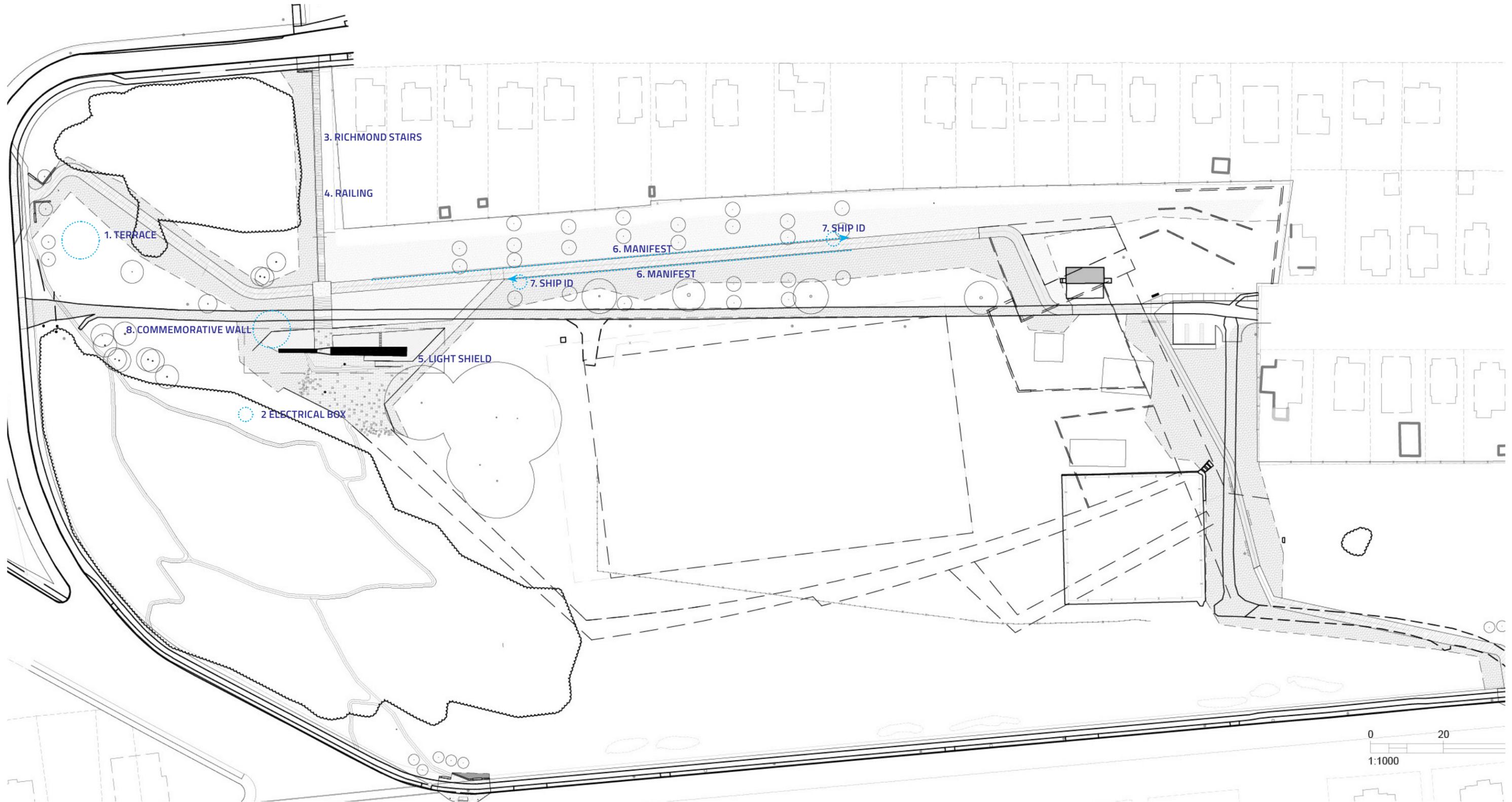
JUNE 13, 2017



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

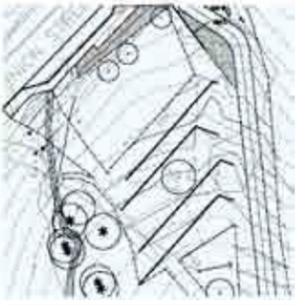
Fort Needham—interpretive elements

Location plan



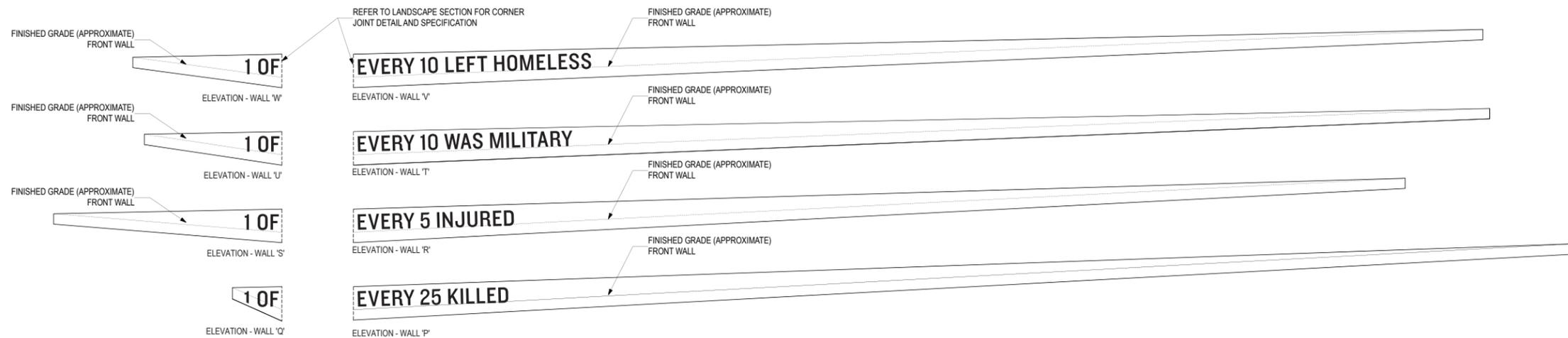
1. Terraces

"One of every..." (memorial walk)

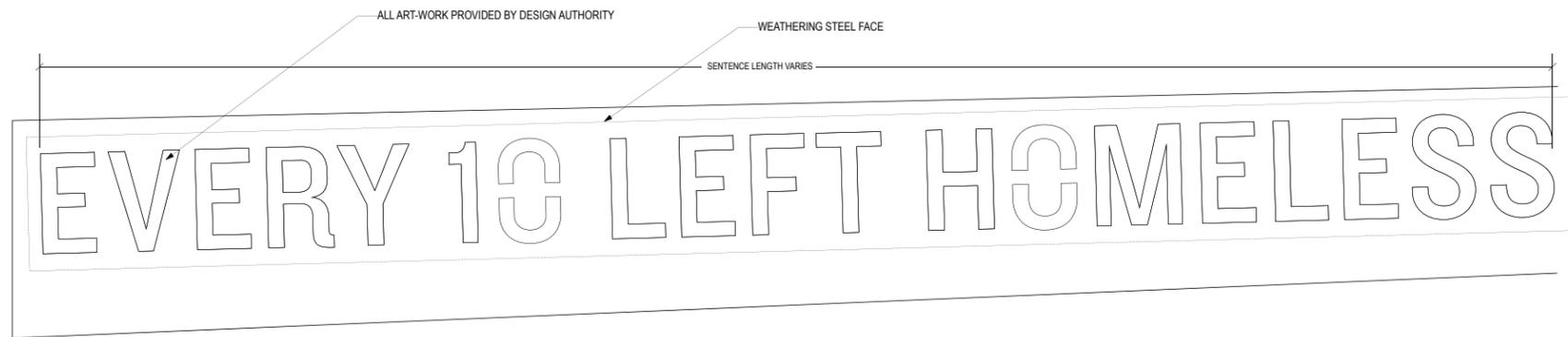


THEME

theme "1 of every..."
 rationale Numeric information often lacks the visceral punch necessary for compelling interpretation. This node relates 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 to relate.



1 VERTICAL COR-TEN TERRACE WALL ELEVATIONS (WALLS P Q R S T U V W)
SCALE 1:50



2 TERRACE WALL ELEVATIONS, TYPICAL (FACE)
SCALE 1:10



3 MEDALLION, PLAN
SCALE 1:5

DESIGN INTENT

content based on an urban population of approximately 50,000–60,000 in 1917¹, we had proposed the following (seen above):

- 1 of every 10 left homeless²
- 1 of every 10 residents was military³
- 1 of every 5 injured⁴
- 1 of every 25 killed⁵

SOURCE(S)

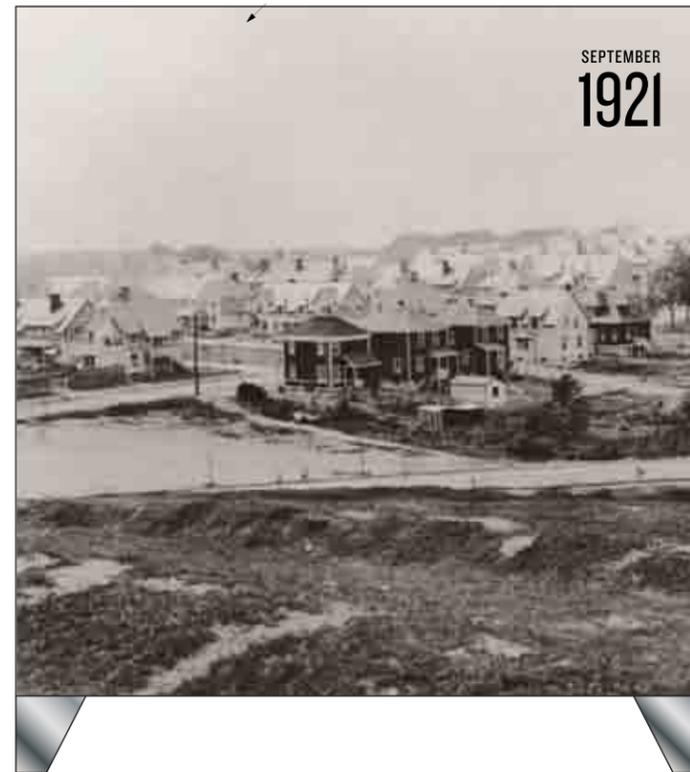
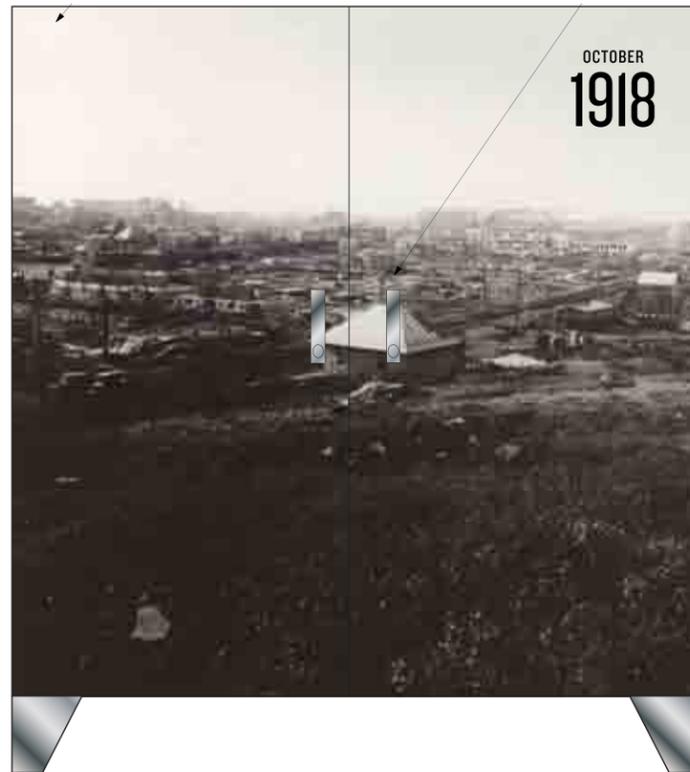
1. per Fifth Census of Canada (1911): 46,619 in Halifax City, 5201 in Dartmouth Town, and 595 naval residents.
2. "6,000 people were left without shelter" from the Maritime Museum of the Atlantic's Halifax Explosion Infosheet, <https://maritimemuseum.novascotia.ca/what-see-do/halifax-explosion/halifax-explosion-infosheet>
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>

MEDALLION

We include a medallion with the city's population of the time to contextualize for the visitor. We selected the 1911 census because it is the last population count prior to the explosion.

2. Electrical Box



1 ELECTRICAL BOX (SOUTH ELEVATION)
SCALE 1:10

2 EAST ELEVATION
SCALE 1:10

3 NORTH ELEVATION
SCALE 1:10

4 WEST ELEVATION
SCALE 1:10

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 reconstruction of the neighbourhood post-explosion.

DESIGN INTENT

Views from Fort Needham hill show the reconstruction underway, looking towards Gottingen St. (now Novalea). The photo at left is from October 1918 (same as Option 2) and the one at right shows September 1921.

This is an appealing interpretive option, because it shows the same views a park visitor would have now, in historical photos. As opposed to option 2, this design shows progress from 1918 to 1921 (and naturally to today).

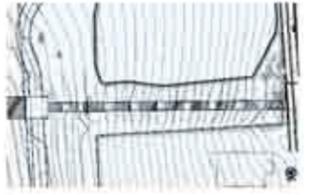
It might be worth adding a year to each photo to clarify the context to the visitor.

SOURCE(S)

1. NS Archives <https://novascotia.ca/archives/explosion/archives.asp?ID=107>
2. NS Archives <https://novascotia.ca/archives/explosion/archives.asp?ID=108>

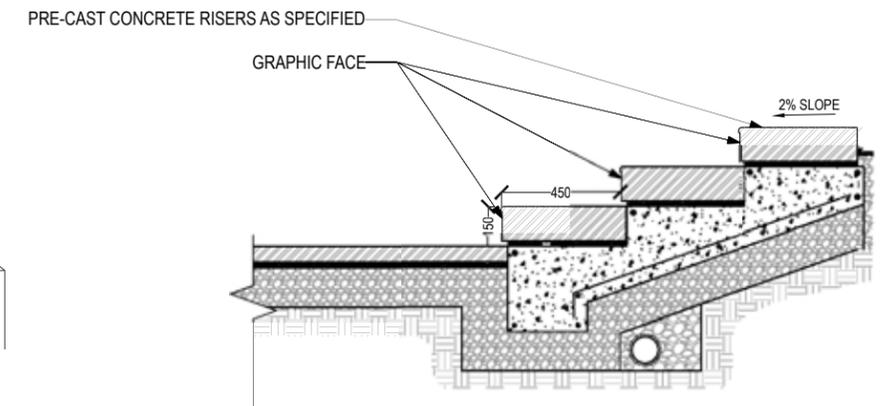
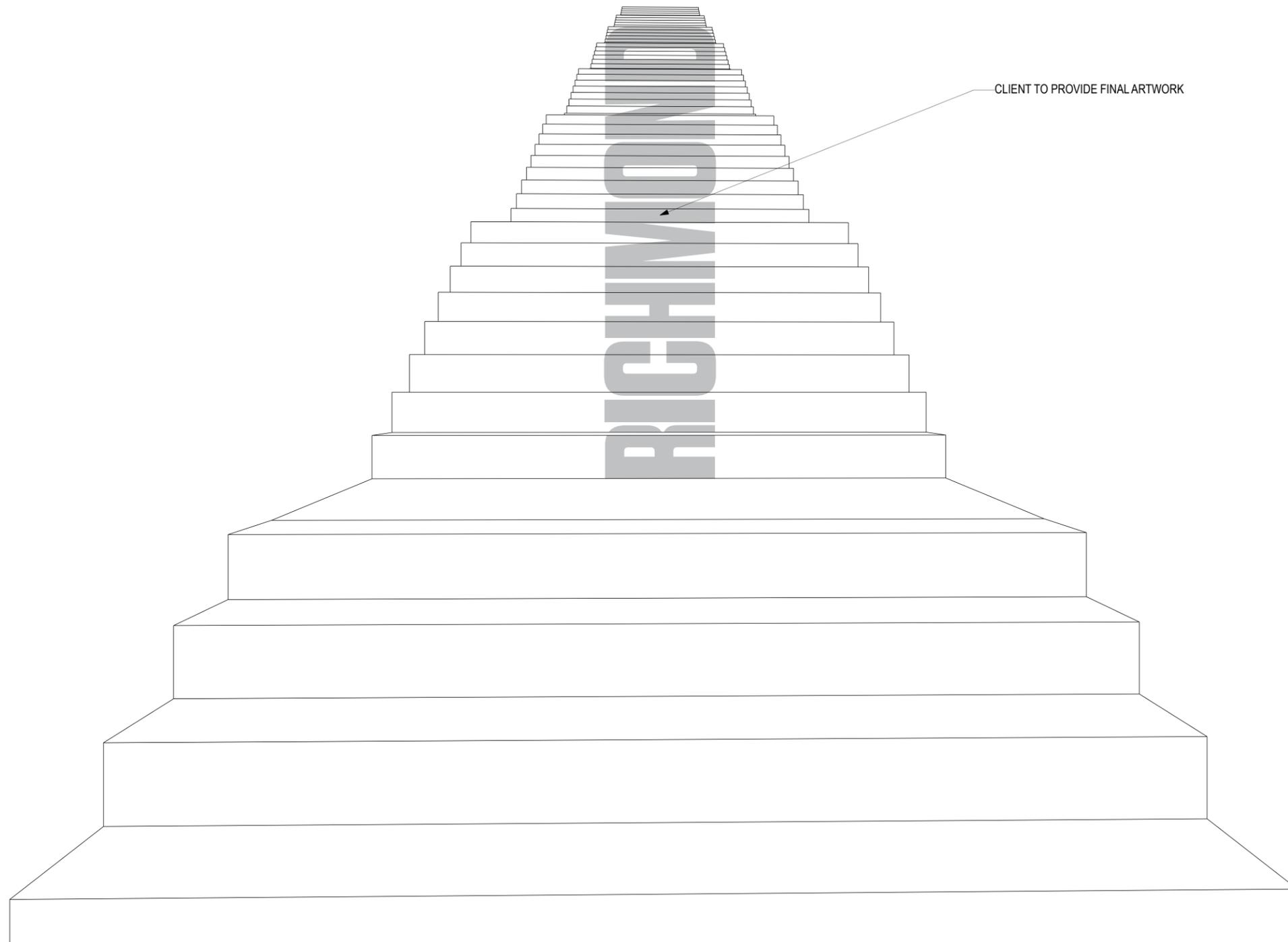
3. Stairs

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. As the
 visitor ascends, the legibility of the
 name Richmond slowly dissipates. From
 the top looking down, the name is not
 visible at all.

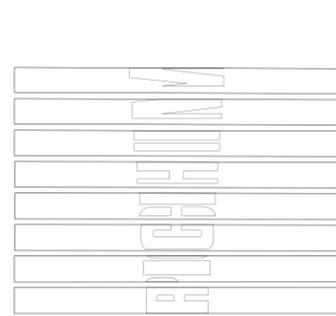


1 RICHMOND STAIRCASE (PERSPECTIVE)
 SCALE: NOT TO SCALE

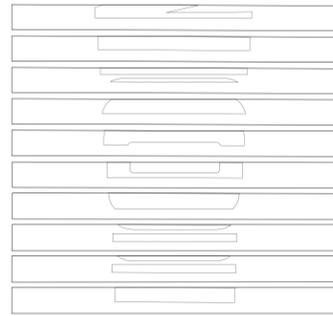
2 STAIR SECTION, TYPICAL
 SCALE: 1:20

3. Stairs

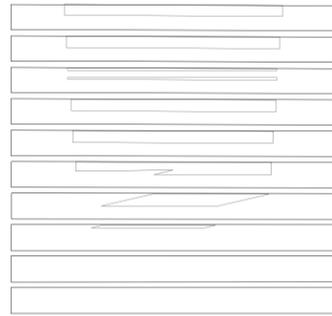
Richmond Staircase



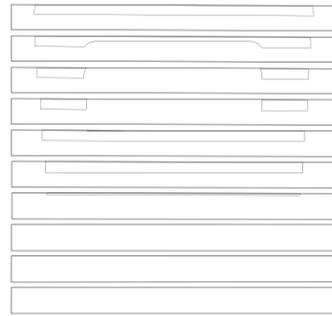
3 FLIGHT 3 (8/8 RISERS)
SCALE: 1:20



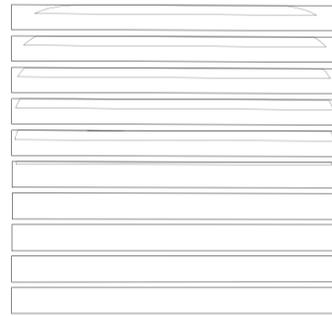
4 FLIGHT 4 (10/10 RISERS)
SCALE: 1:20



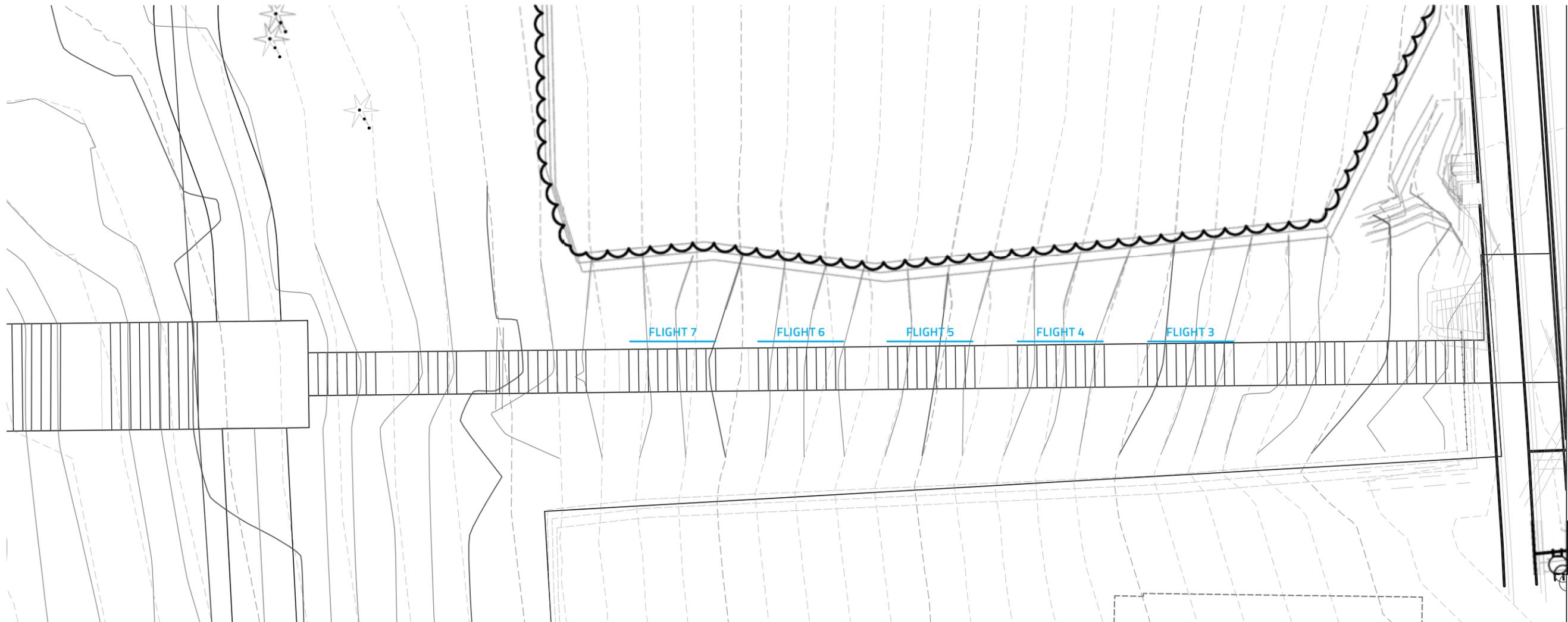
5 FLIGHT 5 (8/10 RISERS)
SCALE: 1:20



6 FLIGHT 6 (7/10 RISERS)
SCALE: 1:20

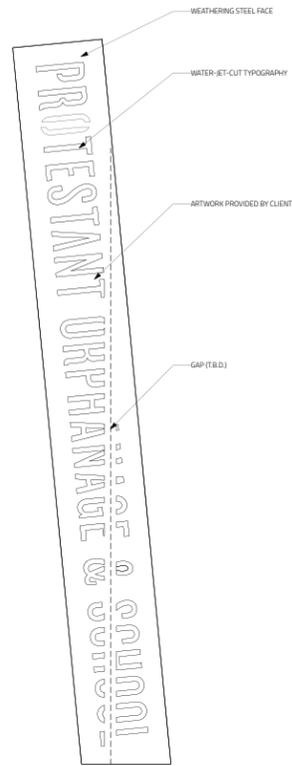
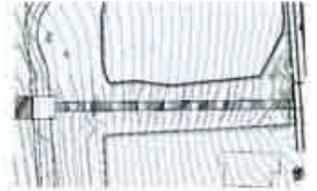


6 FLIGHT 7 (6/10 RISERS)
SCALE: 1:20

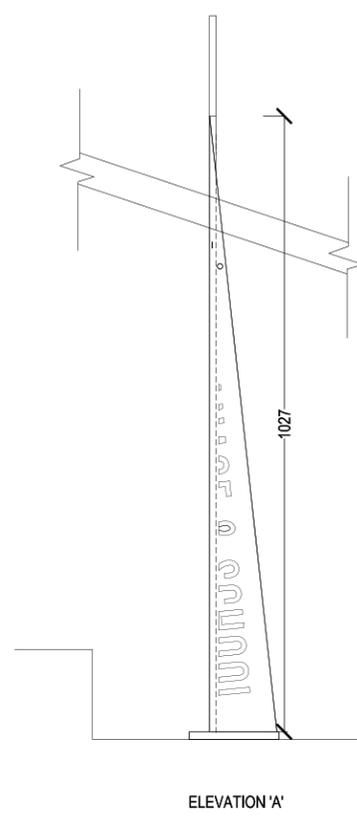


4. Railings

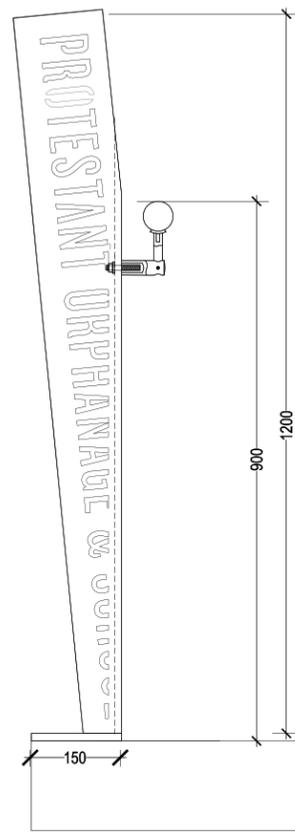
Community Lost Railing



1 RAILING (FLATTENED ELEVATION)
SCALE 1:5



2 RAILING (SOUTH ELEVATION)
SCALE 1:5



3 RAILING (EAST ELEVATION)
SCALE 1:5

DESIGN INTENT

- content
- GROVE PRESBYTERIAN CHURCH
 - HALIFAX GRAVING DOCK
 - HILLIS AND SONS FOUNDRY
 - ISAAC CREIGHTON AND CO. STORE
 - KAYE STREET METHODIST CHURCH
 - NOVA SCOTIA PAINT WORKS
 - PROTESTANT ORPHANAGE
 - RICHMOND PRINTING COMPANY
 - RICHMOND SUGAR REFINERY
 - RICHMOND SCHOOL
 - RICHMOND YARDS
 - ROYAL NAVAL COLLEGE OF CANADA
 - ST. JOSEPH'S ROMAN CATHOLIC CHURCH
 - ST. JOSEPH'S GIRLS SCHOOL
 - ST. MARK'S ANGLICAN CHURCH
 - UPHAM'S STORE

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>
3. Morton, S. (1990). Men and Women in a Halifax Working-Class Neighbourhood in the 1920s. Dalhousie University.
4. McAlpine's Halifax City Directory 1917, Halifax Regional Library, call# RH 917.1622 H17 1917

RATIONALE

To choose names for this element, we cross-referenced known institutions and businesses in the area with fire-insurance plans showing destroyed buildings. The list is representative, but cannot be considered exhaustive.

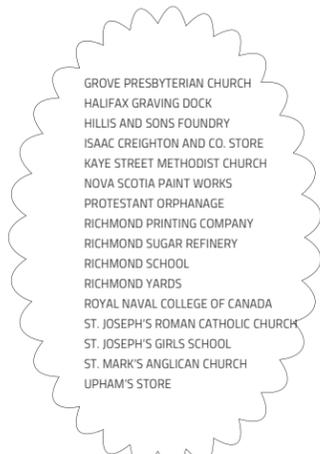
Names and spelling were based on McAlpine's Directory for 1917 and the Kitz/Payzant (2015). Spelling and naming were not standardized in 1917, so we chose common / functional names for the facility in Richmond wherever possible, over official corporate names. We limited the list to institutions which were in what was known as Richmond, including a few which were nearby. Richmond never had any recognized official boundary.

In several cases we normalized names of churches to include their denomination.

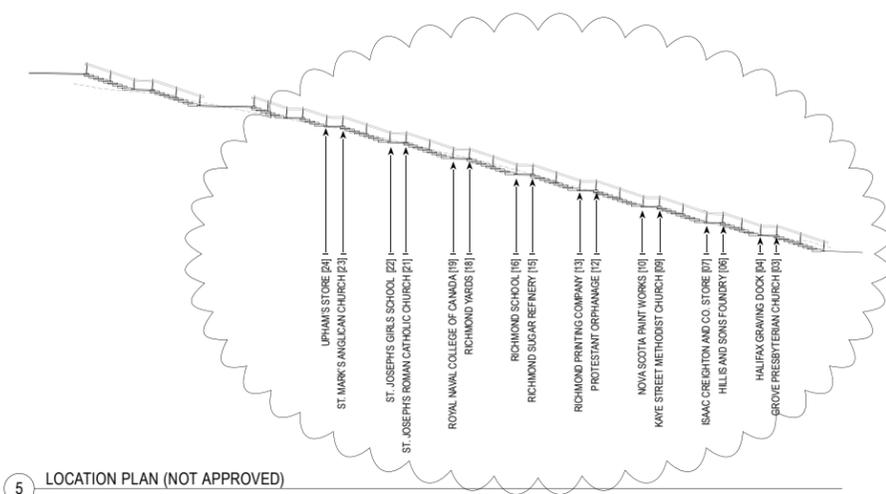
On the next page we have a map showing the locations of the destroyed businesses and institutions, and some information about sources and dates.

THEME

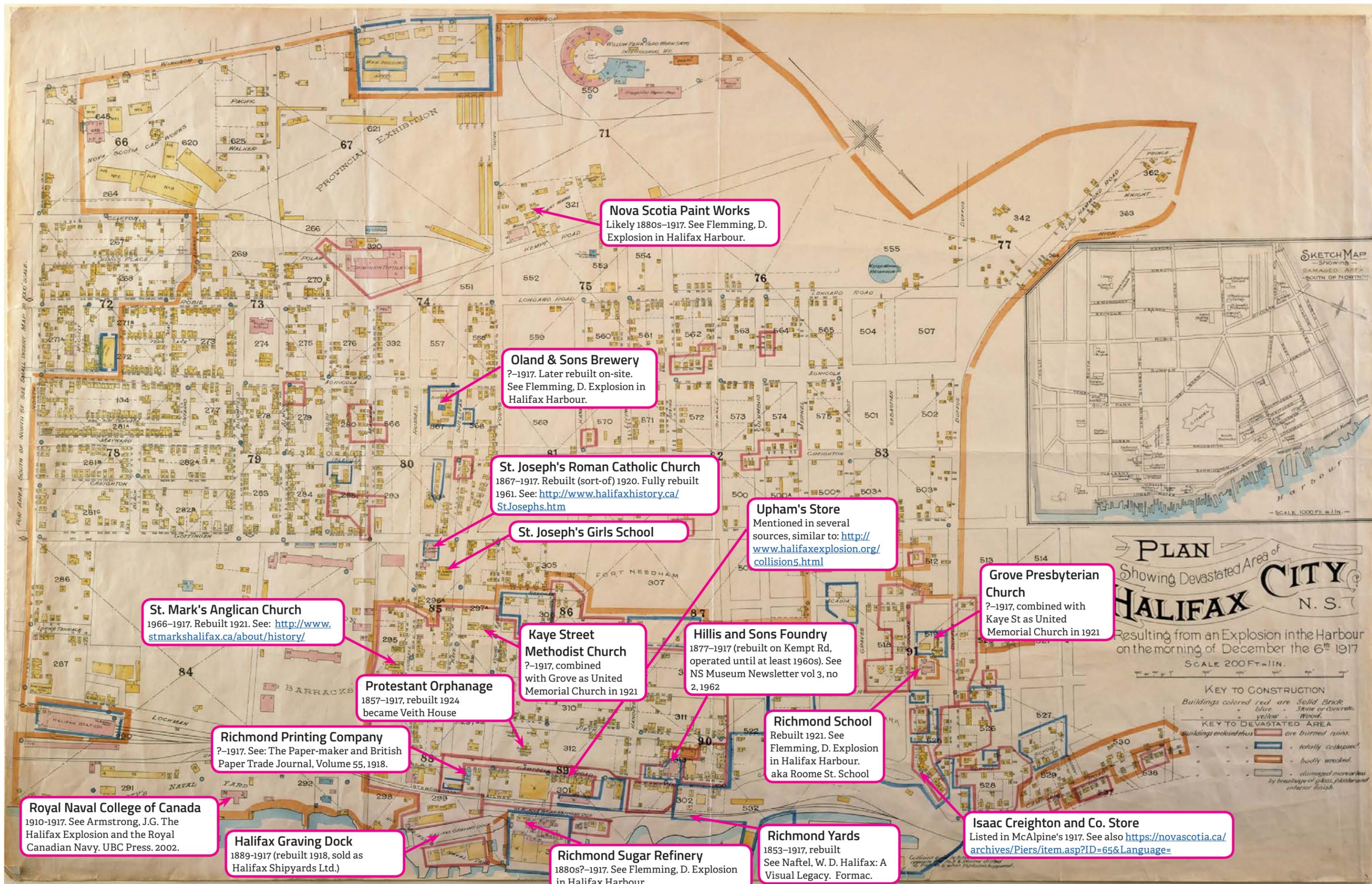
- theme community lost
- rationale The vertical parts of the handrail of the staircase (the balusters) list some important neighbourhood businesses and institutions which were lost to the explosion. The list is not exhaustive list, but contains major businesses and institutions known to be operating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



4 MESSAGE SCHEDULE (MAX. QTY.)
SCALE N/A



5 LOCATION PLAN (NOT APPROVED)
SCALE: N.T.S.



Nova Scotia Paint Works
Likely 1880s–1917. See Flemming, D. Explosion in Halifax Harbour.

Oland & Sons Brewery
?–1917. Later rebuilt on-site. See Flemming, D. Explosion in Halifax Harbour.

St. Joseph's Roman Catholic Church
1867–1917. Rebuilt (sort-of) 1920. Fully rebuilt 1961. See: <http://www.halifaxhistory.ca/StJosephs.htm>

St. Joseph's Girls School

Upham's Store
Mentioned in several sources, similar to: <http://www.halifaxexplosion.org/collision5.html>

Grove Presbyterian Church
?–1917, combined with Kaye St as United Memorial Church in 1921

St. Mark's Anglican Church
1966–1917. Rebuilt 1921. See: <http://www.stmarkshalifax.ca/about/history/>

Kaye Street Methodist Church
?–1917, combined with Grove as United Memorial Church in 1921

Hillis and Sons Foundry
1877–1917 (rebuilt on Kempt Rd, operated until at least 1960s). See NS Museum Newsletter vol 3, no 2, 1962

Protestant Orphanage
1857–1917, rebuilt 1924 became Veith House

Richmond School
Rebuilt 1921. See Flemming, D. Explosion in Halifax Harbour. aka Roome St. School

Richmond Printing Company
?–1917. See: The Paper-maker and British Paper Trade Journal, Volume 55, 1918.

Royal Naval College of Canada
1910–1917. See Armstrong, J.G. The Halifax Explosion and the Royal Canadian Navy. UBC Press. 2002.

Halifax Graving Dock
1889–1917 (rebuilt 1918, sold as Halifax Shipyards Ltd.)

Richmond Sugar Refinery
1880s?–1917. See Flemming, D. Explosion in Halifax Harbour.

Richmond Yards
1853–1917, rebuilt See Naftel, W. D. Halifax: A Visual Legacy. Formac.

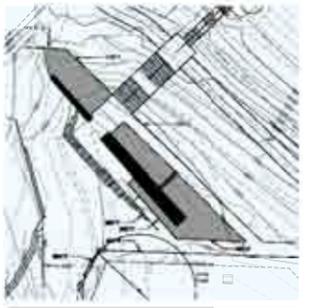
Isaac Creighton and Co. Store
Listed in McAlpine's 1917. See also <https://novascotia.ca/archives/Piers/item.asp?ID=65&Language=>



PLAN Showing Devastated Area of HALIFAX CITY N. S.
Resulting from an Explosion in the Harbour on the morning of December the 6th 1917
SCALE 200 FT. = 1 IN.

KEY TO CONSTRUCTION
Buildings colored red are Solid Brick.
blue Stone or Concrete.
yellow Wood.
KEY TO DEVASTATED AREA
Buildings enclosed thus [red box] are burned ruins.
[blue box] totally collapsed.
[orange box] badly wrecked.
[grey box] damaged more or less by breakage of glass, plaster and interior finish.

5. Light Shield Morse Code



THEME

title Memorial light shield
 rationale We 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

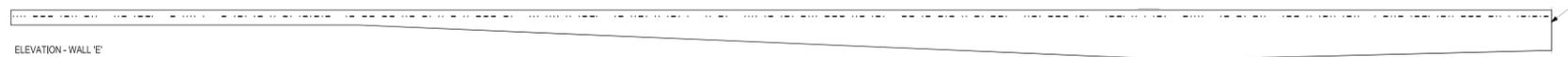
content [as morse code]: "Hold up the train. Ammunition ship afire in harbor making for Pier 6 and will explode. Guess this will be my last message. Good-bye boys."

"06 December 1917—Vince Coleman"

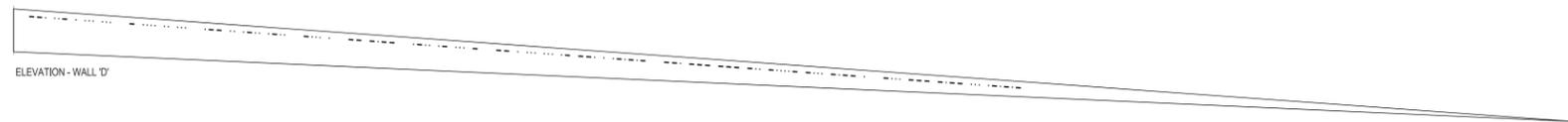
content The date gives context to the timing of the message. The name, Vince Coleman, suggests there is meaning behind the pattern of dots and dashes.

SOURCE(S)

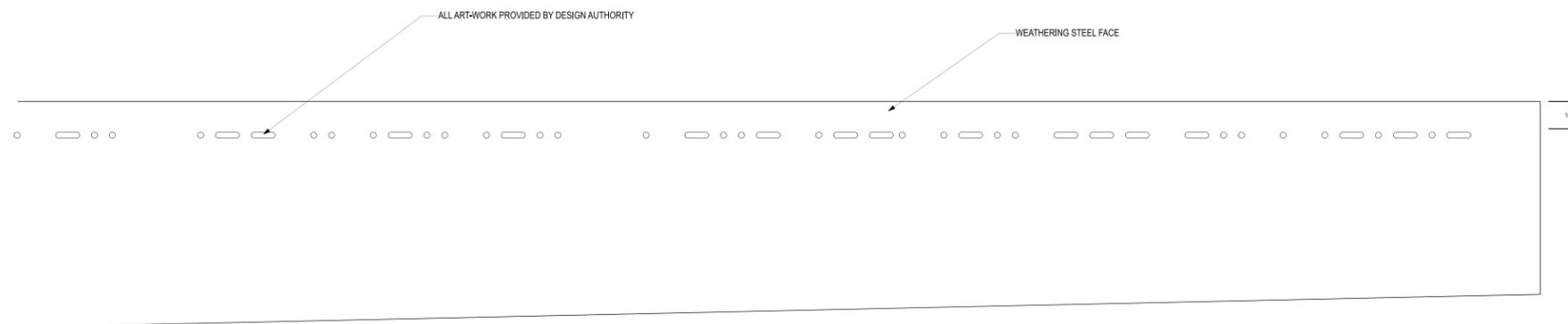
1 Maritime Museum of the Atlantic
<https://maritimemuseum.novascotia.ca/what-see-do/halifax-explosion/vincent-coleman-and-halifax-explosion>



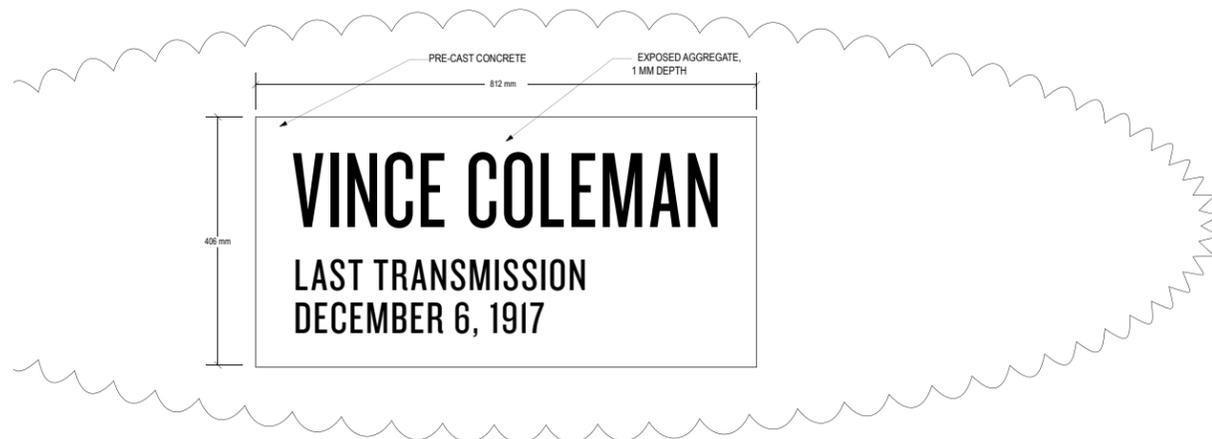
1 LIGHT SHIELD WALL ELEVATION (WALL E) [HOLD UP THE TRAIN. AMMUNITION SHIP AFIRE IN HARBOUR MAKING FOR PIER 6 AND WILL EXPLODE.]
 SCALE 1:25



2 LIGHT SHIELD WALL ELEVATION (WALL D) [GUESS THIS WILL BE MY LAST MESSAGE. GOOD-BYE BOYS.]
 SCALE 1:25



3 LIGHT SHIELD WALL DETAIL (WALL D)
 SCALE 1:5



4 PAVER
 SCALE 1:5

6. Manifest

Ship cargo manifest

(BACK)	500 SMALL BARRELS 50,000 LBS \$ 24,750 VALUE (1917) USD			
(SLAT 6)	1,400 BARRELS 515,160 LBS \$ 425,007 VALUE (1917) USD	500 SMALL BARRELS 50,000 LBS \$ 24,750 VALUE (1917) USD		
(SLAT 5)	5,950 BARRELS 2,240,031 LBS \$ 1,344,019 VALUE (1917) USD			
(SLAT 4)	490 BARRELS 224,010 LBS \$ 168,261 VALUE (1917) USD	2,500 SMALL BARRELS 250,000 LBS \$ 123,750 VALUE (1917) USD		
(SLAT 3)	490 BARRELS 223,749 LBS \$ 121,224 VALUE (1917) USD			
(SLAT 2)	1,500 BARRELS 330,000 LBS \$ 172,488 VALUE (1917) USD	1,500 CASES 150,000 LBS \$ 67,500 VALUE (1917) USD	194 DRUMS 198,045 LBS \$ 45,550 VALUE (1917) USD	682 CASES 124,124 LBS \$ 65,165 VALUE (1917) USD
(SLAT 1)	WET PICRIC ACID	TRINITROTOLUOL (TNT)	MONO-CHLORBENZOL	GUNCOTTON

5 MONT BLANC MANIFEST BENCH 1
SCALE 1:10



4,000 SMALL BARRELS
400,000 LBS \$ 350,000 VALUE (1917)
USD

4,000 SMALL BARRELS
400,000 LBS \$ 260,000 VALUE (1917)
USD

4,000 SMALL BARRELS
400,000 LBS \$ 350,000 VALUE (1917)
USD

DRY PICRIC ACID

P MONT BLANC MANIFEST BENCH 5
SCALE 1:10

6 MONT BLANC MANIFEST BENCH 2
SCALE 1:10



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

CHLOR-BENZOL

10 MONT BLANC MANIFEST BENCH 6
SCALE 1:10

7 MONT BLANC MANIFEST BENCH 3
SCALE 1:10



11 IMO MANIFEST BENCH-BACK 1
SCALE 1:10

8 MONT BLANC MANIFEST BENCH 4
SCALE 1:10

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)

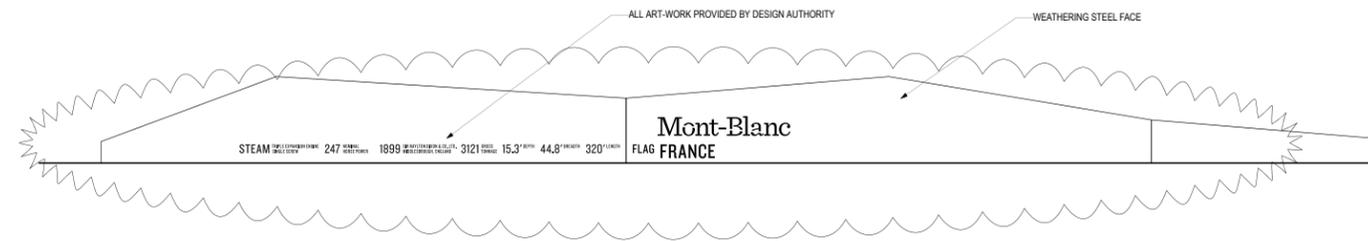
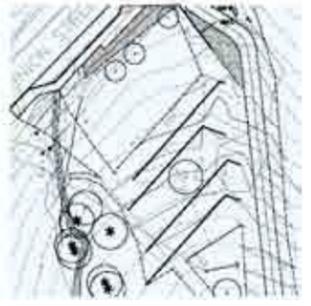
1 Specifications as listed in the US Treasury Department, Shipping Export Declarations for the Mont-Blanc, Nov 30 and Dec 3, 1917 (National Archives at New York City)

THEME

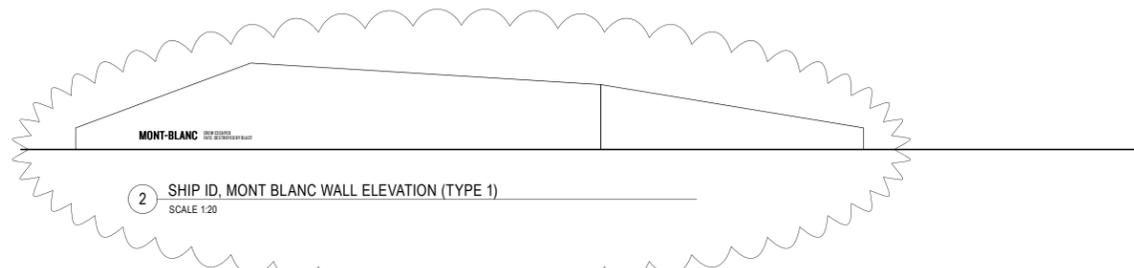
theme Ship cargo manifest
rationale Along the main path, walls with benches contain information about the cargo which was aboard the Mont-Blanc. Each bench will list a different material which appeared in the ship's manifest, including picric acid, trinitrotoluol, benzene and others whose reaction resulted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

7. Ship ID

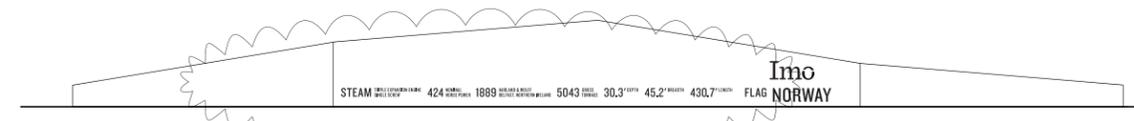
Ship specifications



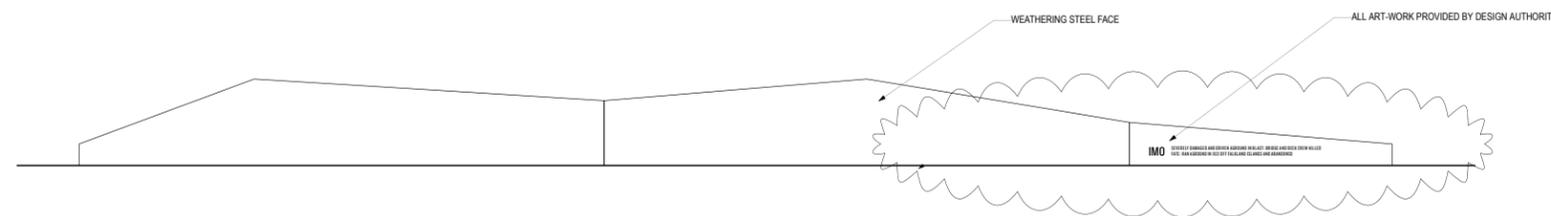
1 SHIP ID, MONT BLANC WALL ELEVATION (TYPE 3)
SCALE 1:20



2 SHIP ID, MONT BLANC WALL ELEVATION (TYPE 1)
SCALE 1:20



3 SHIP ID, IMO WALL ELEVATION (TYPE 6)
SCALE 1:20



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	Middlesbrough, 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 Guvernoren 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

THEME

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 advice

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.

SOURCE(S)

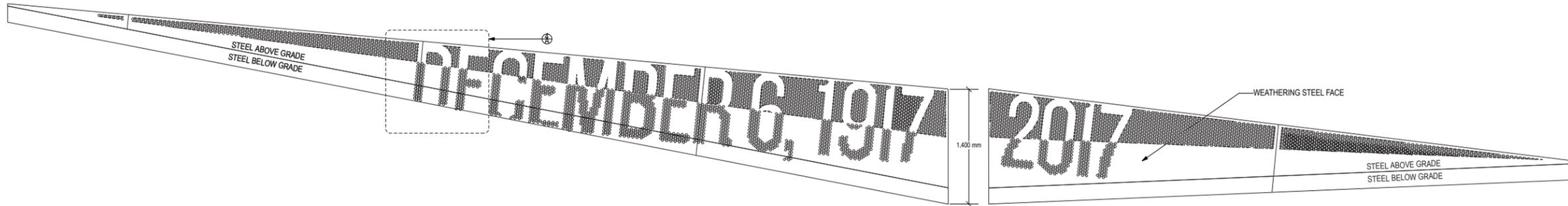
1 Materials as listed on the Maritime Museum of the Atlantic website. Middlesbrough UK was misspelled as "Middlesboro".

8. Commemorative Wall

6 December 1917/2017 wall

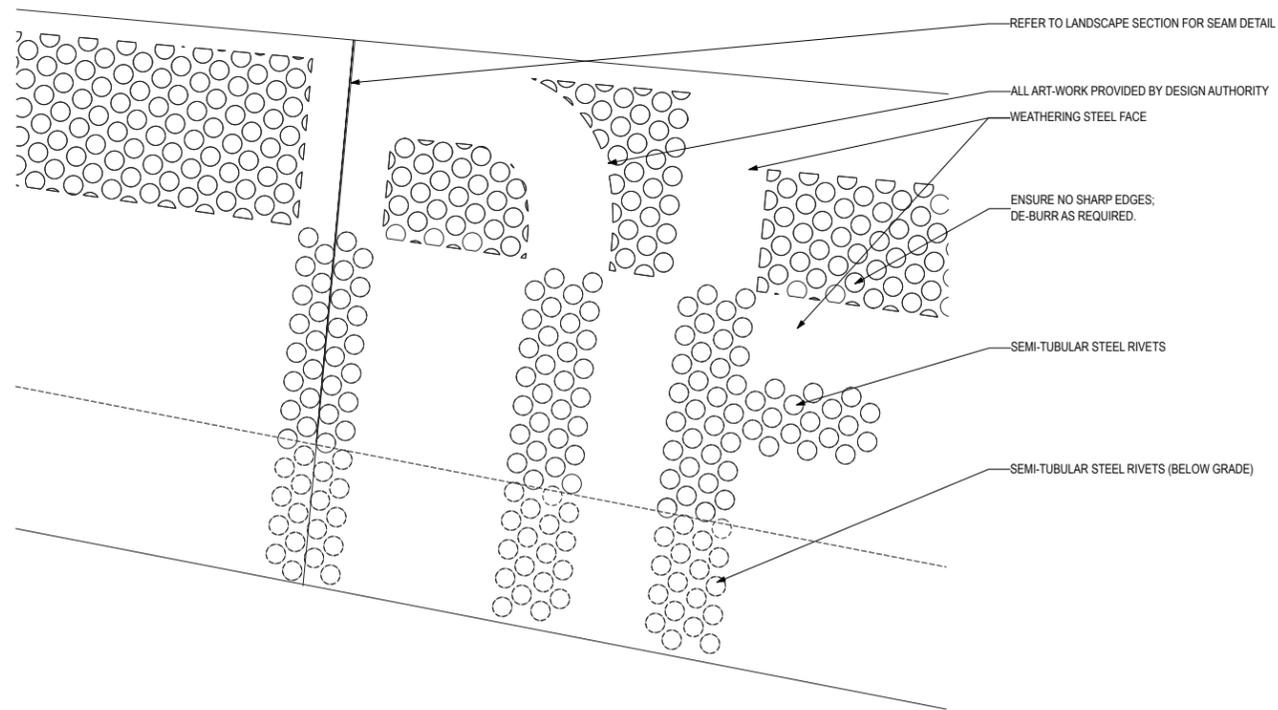
NOTES

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.



1 COMMEMORATIVE DATE WALL ELEVATION (WALL B)
SCALE 1:30

2 COMMEMORATIVE DATE WALL ELEVATION (WALL A)
SCALE 1:30



3 COMMEMORATIVE DATE WALL ELEVATION (WALL B)
SCALE 1:30

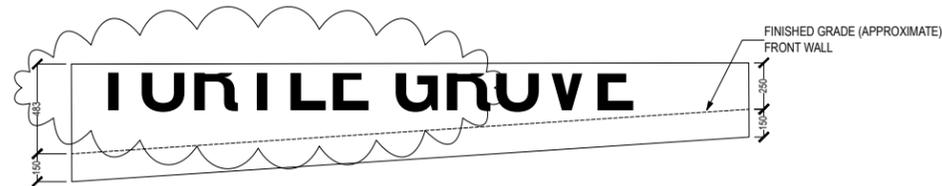
9. Marker Turtle Grove / Kepe'kek

NOTES

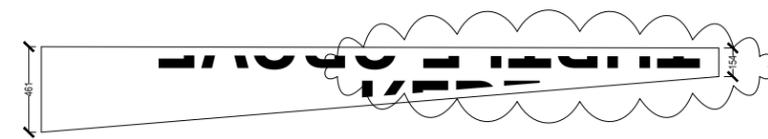
title Marker: Kepe'kek
 rationale The loss of the Mi'kmaw community of Kepe'kek (Turtle Grove) will be commemorated in an element found in the landscape. Located at the top of the hill, oriented in the direction of community, the element will shed light on this community lost.



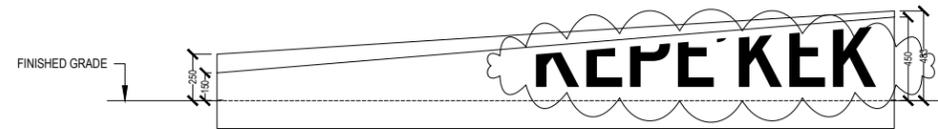
1 TURTLE GROVE MARKER (FLAT)
SCALE 1:50



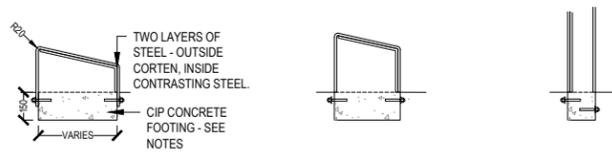
2 TURTLE GROVE MARKER (BACK ELEVATION)
SCALE 1:50



3 TURTLE GROVE MARKER (TOP ELEVATION)
SCALE 1:50

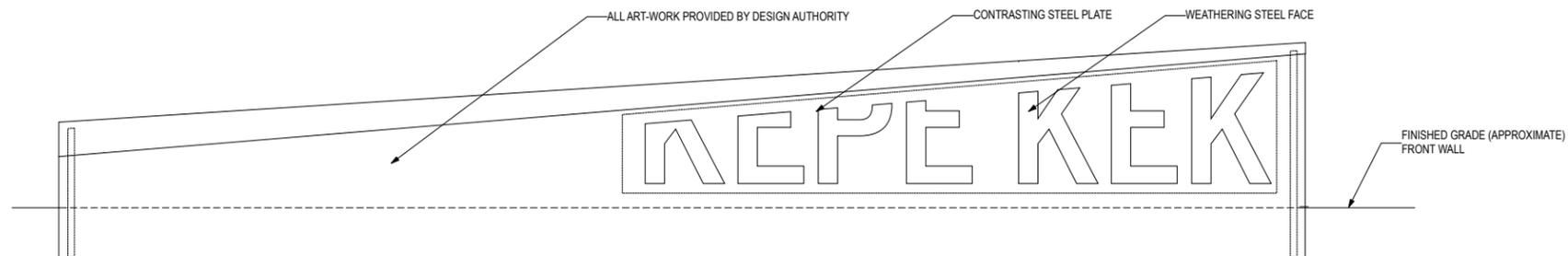


4 TURTLE GROVE MARKER (FRONT ELEVATION)
SCALE 1:50



REFER TO LANDSCAPE SECTION FOR CONTRASTING LAYER CONSTRUCTION

5 TURTLE GROVE MARKER (TYPICAL CONSTRUCTION)
SCALE 1:50



6 TURTLE GROVE MARKER (TYPICAL ELEVATION)
SCALE 1:25