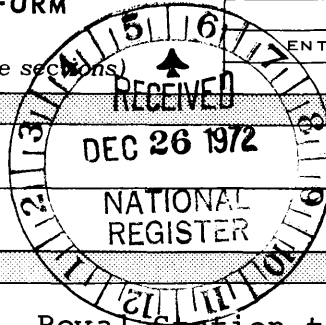


NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM

STATE: Maryland	
COUNTY: Baltimore City	
FOR NPS USE ONLY	
ENTRY NUMBER JUL 2 1973	DATE

(Type all entries - complete applicable sections)



1. NAME

COMMON:
Howard Street Tunnel

AND/OR HISTORIC:

2. LOCATION

STREET AND NUMBER:
Beneath Howard Street from Mt. Royal Station to Camden Station

CITY OR TOWN:
Baltimore

STATE Maryland	CODE 24	COUNTY: Baltimore City	CODE 510
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3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP	STATUS	ACCESSIBLE TO THE PUBLIC
<input type="checkbox"/> District <input type="checkbox"/> Building <input type="checkbox"/> Site <input checked="" type="checkbox"/> Structure <input type="checkbox"/> Object	<input type="checkbox"/> Public <input checked="" type="checkbox"/> Private <input type="checkbox"/> Both	Public Acquisition: <input type="checkbox"/> In Process <input type="checkbox"/> Being Considered	<input checked="" type="checkbox"/> Occupied <input type="checkbox"/> Unoccupied <input type="checkbox"/> Preservation work in progress
PRESENT USE (Check One or More as Appropriate)			
<input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial <input type="checkbox"/> Educational <input type="checkbox"/> Entertainment	<input type="checkbox"/> Government <input type="checkbox"/> Industrial <input type="checkbox"/> Military <input type="checkbox"/> Museum	<input type="checkbox"/> Park <input type="checkbox"/> Private Residence <input type="checkbox"/> Religious <input type="checkbox"/> Scientific	<input checked="" type="checkbox"/> Transportation <input checked="" type="checkbox"/> Other (Specify) <u>tunnel</u>

4. OWNER OF PROPERTY

OWNER'S NAME:
Baltimore & Ohio and Chesapeake & Ohio Railroad Companies

STREET AND NUMBER:
Baltimore and Charles Streets

CITY OR TOWN: Baltimore	STATE: Maryland	CODE 24
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5. LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.:
Baltimore City Courthouse

STREET AND NUMBER:
St. Paul and Fayette Streets

CITY OR TOWN: Baltimore	STATE: Maryland	CODE 24
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6. REPRESENTATION IN EXISTING SURVEYS

TITLE OF SURVEY:
Maryland Register of Historic Sites and Landmarks

DATE OF SURVEY: 1970 Federal State County Local

DEPOSITORY FOR SURVEY RECORDS:
Maryland Historical Trust

STREET AND NUMBER:
2525 Riva Road

CITY OR TOWN: Annapolis	STATE: Maryland	CODE 24
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SEE INSTRUCTIONS

Recorded
11/28/73
1973

STATE: Maryland
COUNTY: Baltimore City
ENTRY NUMBER: JUL 2 1973
DATE: JUL 2 1973
FOR NPS USE ONLY

7 DESCRIPTION

CONDITION	(Check One)					
	<input type="checkbox"/> Excellent	<input checked="" type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Deteriorated	<input type="checkbox"/> Ruins	<input type="checkbox"/> Unexposed
	(Check One)			(Check One)		
	<input type="checkbox"/> Altered	<input checked="" type="checkbox"/> Unaltered		<input type="checkbox"/> Moved	<input checked="" type="checkbox"/> Original Site	

DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE

The Howard Street Tunnel provides cover for an underground rail connection beneath Howard Street in downtown Baltimore between the Mount Royal and Camden Stations of the Baltimore and Ohio Railroad. The tunnel is 7,341 feet long, 21 feet 3 inches at extreme height, 27 feet wide, and averages between 50 and 65 feet below the pavement. It is built of brick with iron-ring centerings shaped in an arch. The flooring is a flat reverse arch which provides additional strength to the walls. The tunnel has a grade of 0.8 degrees which allows the southbound trains to coast from Mount Royal Station to Camden Station.

The tunnel was constructed beneath one of Baltimore's busiest streets; through relatively soft gravel with the everpresent threat of water seepage, hidden underground streams and patches of quicksand. The City of Baltimore placed restrictions on the construction which limited the length of uncompleted tunnel sections and insisted th t no uncompleted sections be contiguous. The City's fears proved groundless, for no buildings were injured by the tunnel construction. Even the street car line remained undisturbed.

The tunnel is still in use.



SEE INSTRUCTIONS

8. SIGNIFICANCE

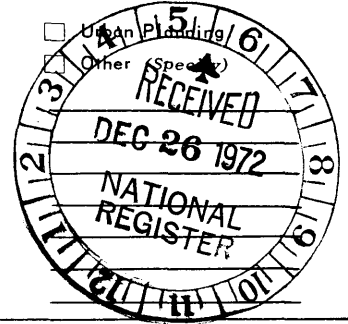
PERIOD (Check One or More as Appropriate)

- Pre-Columbian; 16th Century 18th Century 20th Century
 15th Century 17th Century 19th Century

SPECIFIC DATE(S) (If Applicable and Known) 1890-1895

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

- | | | |
|---|---|--|
| <input type="checkbox"/> Aboriginal | <input type="checkbox"/> Education | <input type="checkbox"/> Political |
| <input type="checkbox"/> Prehistoric | <input checked="" type="checkbox"/> Engineering | <input type="checkbox"/> Religion/Philosophy |
| <input type="checkbox"/> Historic | <input type="checkbox"/> Industry | <input type="checkbox"/> Science |
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Invention | <input type="checkbox"/> Sculpture |
| <input type="checkbox"/> Architecture | <input type="checkbox"/> Landscape Architecture | <input type="checkbox"/> Social/Humanitarian |
| <input type="checkbox"/> Art | <input type="checkbox"/> Literature | <input type="checkbox"/> Theater |
| <input type="checkbox"/> Commerce | <input type="checkbox"/> Military | <input checked="" type="checkbox"/> Transportation |
| <input type="checkbox"/> Communications | <input type="checkbox"/> Music | |
| <input type="checkbox"/> Conservation | | |



STATEMENT OF SIGNIFICANCE

The Howard Street Tunnel is a monument in the history of American engineering. The construction of a 7,341-foot tunnel through soft ground under a busy street, and the innovational use of electricity for illumination and for powering the tunnel locomotives, represent an outstanding accomplishment for its time.

The Baltimore Belt Railroad, chartered in 1888, built the Howard Street Tunnel. The seven-mile-long railroad connected the main branch of the Baltimore and Ohio Railroad that extends westward with its Philadelphia branch. Previously, trains had taken a circuitous route around Baltimore, which included ferrying all trains across the Patapsco River. Two decades earlier, the Pennsylvania Railroad had constructed tracks directly through Baltimore. In order for the B & O to remain competitive with the Pennsylvania company, the Baltimore Belt Railroad was built. The growth of the city eliminated the possibility of an above-ground track, necessitating the construction of a tunnel.

Samuel Raw was the Chief Engineer of the tunnel. A native of Pennsylvania, he previously had worked on the New York tunnel extension of the Pennsylvania Railroad and on the Hell Gate Bridge of the New York Connecting Railroad.

Construction of the tunnel began in 1890. On May 1, 1895, the first passenger train passed through it.

The power for the locomotives moving the trains through the tunnel was provided by electricity--a novel idea in the 1890's as electricity was then only beginning to be used by railroads. The General Electric Company designed electric locomotives especially for the Howard Street Tunnel, and an electric power station was built on the Camden Station yard to power them. The electricity that provided the illumination for the tunnel was another innovative achievement.

SEE INSTRUCTIONS

9. MAJOR BIBLIOGRAPHICAL REFERENCES

"The Baltimore Belt Railroad." Engineering News. XXVI (December 12, 1891), 557-559; (December 19, 1891), 585-587.

"The Baltimore and Ohio Railroad Tunnel at Baltimore." Scientific American Supplement. Vol. XL (August 10, 1895), 16346-16348.

Hungerford, Edward. The Story of the Baltimore and Ohio Railroad. 2 vols. New York: G. Putnam's Sons, 1928.

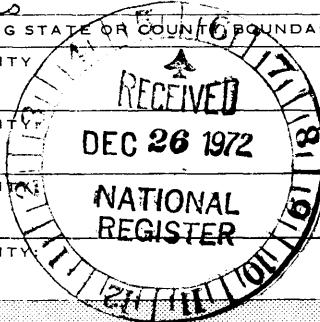
10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY			O R	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES		
CORNER	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	
NW	Degrees Minutes Seconds 39° 18' 17"	Degrees Minutes Seconds 76° 37' 15"		Degrees Minutes Seconds ° ' "	Degrees Minutes Seconds ° ' "	
NE	39° 18' 17"	76° 37' 13.5"				
SE	39° 17' 07"	76° 37' 9.5"				
SW	39° 17' 07"	76° 37' 11"				

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: 3 Acres

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE



SEE INSTRUCTIONS

11. FORM PREPARED BY

NAME AND TITLE:
Nancy Miller, Historian

ORGANIZATION: **Maryland Historical Trust** DATE: **Aug. 17, 1972**

STREET AND NUMBER:
2525 Riva Road

CITY OR TOWN: **Annapolis** STATE: **Maryland 21401** CODE: **24**

12. STATE LIAISON OFFICER CERTIFICATION

NATIONAL REGISTER VERIFICATION

As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:

National State Local

Name Orlando Ridout IV
Orlando Ridout IV

Title State Liaison Officer for Maryland

Date Aug. 17, 1972

I hereby certify that this property is included in the National Register.

Robert M. Utley
Chief, Office of Archeology and Historic Preservation

Date 7/2/73

ATTEST:
W. Smiley R.
Keeper of The National Register

Date 6 18 73

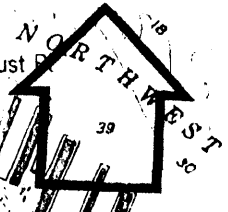
BALTIMORE EAST QUADRANGLE
USGS 7.5 minute map
scale: 1: 24 000
photorevised 1966

lat. 39° 18' 17"
long. 76° 37' 15"

lat. 39° 17' 07"
long. 76° 37' 11"



RECEIVED
DEC 26 1972
NATIONAL
REGISTER



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