

NATIONAL HISTORIC LANDMARK

THEME: Travel & Communications

Form 10-300
(Rev. 6-72)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

STATE: Maryland <i>BA-14B</i>
COUNTY: Baltimore
FOR NPS USE ONLY
ENTRY DATE

NATIONAL REGISTER OF HISTORIC PLACES
NATIONAL HISTORIC INVENTORY - NOMINATION FORM
(LANDMARKS)

(Type all entries - complete applicable sections)

1. NAME

COMMON:
Thomas Viaduct

AND/OR HISTORIC:
Thomas Viaduct

2. LOCATION

STREET AND NUMBER: C&O-B&O Railroad where it crosses the Patapsco River, 2200 feet northwest of U.S. Route 95

CITY OR TOWN: Relay CONGRESSIONAL DISTRICT: 7th

STATE: Maryland 21228 CODE: 24 COUNTY: Baltimore CODE: 005

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 type="checkbox"/> Transportation <input checked="" type="checkbox"/> Other (Specify) <u>Viaduct</u>
ACCESSIBLE TO THE PUBLIC: Yes: <input type="checkbox"/> Restricted <input checked="" type="checkbox"/> Unrestricted <input type="checkbox"/> No			

4. OWNER OF PROPERTY

OWNER'S NAME: President, Mr. John Hanifin, Chesapeake & Ohio--Baltimore & Ohio Railroad.

STREET AND NUMBER: 2 North Charles Street

CITY OR TOWN: Baltimore STATE: Maryland CODE: 24

5. LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Howard County Court House--Clerk of Circuit Court

STREET AND NUMBER: 8360 Court Avenue

CITY OR TOWN: Ellicott City STATE: Maryland CODE: 24

6. REPRESENTATION IN EXISTING SURVEYS

TITLE OF SURVEY: Historic American Building Survey (4 photos)

DATE OF SURVEY: 1936 Federal State County Local

DEPOSITORY FOR SURVEY RECORDS: Library of Congress/Annex

STREET AND NUMBER: Division of Prints and Photographs

CITY OR TOWN: Washington STATE: D.C. CODE: 11

SEE INSTRUCTIONS

STATE: Maryland
COUNTY: Howard
ENTRY NUMBER
DATE
FOR NPS USE ONLY

7. DESCRIPTION

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

DESCRIBE THE PRESENT AND ORIGINAL (If known) PHYSICAL APPEARANCE

Constructed of local granite, the Thomas Viaduct has proven to be a lasting tribute to its designer, Benjamin H. Latrobe. The viaduct is 612 feet in length formed of eight semicircular arch spans varying in length from 58 feet 5 inches to 58 feet, 10-1/2 inches. Because of the route alignment at the time of construction, the structure was built on a four degree curve and stands 59 feet above the river. The floor is 26-feet wide, broad enough to hold a double track. In addition to the track, a wooden-floored walkway, 4-feet in width and supported by cast-iron brackets, is located on the deck of the viaduct. To aid pedestrians, ornamental cast iron railings were erected upon the outermost edge of the walkway. The granite is ashlar, roughly squared and dressed, laid in cement mortar, with openings at the crown of each arch. Pilasters, made of the same material, run from the top of each pier to the base. Crude in execution, they visually support the massive form of the viaduct while enhancing the harmonious proportion and inherent grace of the Roman arches. The structure contains 24,476 cubic yards of stone and cost \$142,236.51, to build. To counteract deterioration, the viaduct underwent repairs in 1938, performed by the Baltimore and Ohio Maintenance of Way Department. The work consisted mainly of improvements for drainage and the application of a grout mixture to the stone spandrel filling. At an unknown date railing blocks were removed from the north side of the deck and a bracketed walkway added, giving more lateral clearance. Thomas Viaduct is in excellent condition and has been in continuous service since its construction in 1835.

Thomas Viaduct is located on the Chesapeake and Ohio--Baltimore and Ohio Railroad at the point where it crosses the Patapsco River. This is approximately 2200 feet northwest of Interstate 95 at the point where it crosses the tracks of the C&O-B&O Railroad.

The Thomas Viaduct exists today in an area heavily built up with major highways extending from Baltimore to Washington. A modern road bridge towers above the viaduct on the south and tends to diminish the massive construction of the earlier structure. Because of existing intrusions the landmark boundary is drawn only to protect the structure itself and its approaches, a distance of 50-feet from each end of the Thomas Viaduct along the tracks of the railroad, including the railroad right of way property and the McCartney monument.

SEE INSTRUCTIONS

B. SIGNIFICANCE

PERIOD (Check One or More as Appropriate)

<input type="checkbox"/> Pre-Columbian	<input type="checkbox"/> 16th Century	<input type="checkbox"/> 18th Century	<input type="checkbox"/> 20th Century
<input type="checkbox"/> 15th Century	<input type="checkbox"/> 17th Century	<input checked="" type="checkbox"/> 19th Century	

SPECIFIC DATE(S) (If Applicable and Known) 1835

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

<input type="checkbox"/> Aboriginal	<input type="checkbox"/> Education	<input type="checkbox"/> Political	<input type="checkbox"/> Urban Planning
<input type="checkbox"/> Prehistoric	<input checked="" type="checkbox"/> Engineering	<input type="checkbox"/> Religion/Philosophy	<input type="checkbox"/> Other (Specify) _____
<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	<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

SEE INSTRUCTIONS

Still in use today, the Thomas Viaduct, located on the Chesapeake and Ohio-Baltimore and Ohio Railroad line at the point where it crosses the Patapsco River, is the world's oldest multiple stone arched railroad bridge as well as America's earliest notable example of railroad bridge construction. Designed in 1835 by Benjamin H. Latrobe, a civil engineer and son of the architect of the same name, the bridge was, for its day, of massive size, the largest in the country, dwarfing all contemporary masonry works and marking the real beginning of the major railway structure in America. Still impressive today, the structure has required no major repairs or changes in its many years of service.

The original route of the Baltimore and Ohio Railroad left Baltimore City near its southwest corner, following the Patapsco River to Ellicott's Mills on its way westward. Shortly after this portion of the main stem had been in operation it was realized that a rail connection with the Nation's Capital was essential to the company's success, and construction was begun in 1832. Where the new line branched from the old at Relay, site of a former postroad hotel and changing point for stage horses, a crossing of the Patapsco River was necessary. The Patapsco span, designed by Benjamin H. Latrobe in 1835, was a structure remarkable in every aspect of its conception. In laying out the route, Latrobe had to provide for passage over the river which flowed through a deep ravine between Relay and Elkridge Landing. The route alignment required that the viaduct follow a four degree curve, giving rise to almost unprecedented problems of design and construction. The present structure illustrates his answer to the problem. Latrobe's design was executed by John McCartney, contractor, under the direction of Jonathan Knight, principal assistant engineer and Caspar Wever, superintendent of construction. When the structure was finished a 15-foot monument with the names of the builder, directors of the railroad, the architect, engineer, and others associated with the viaduct was constructed by the builder, John McCartney.

Until after the Civil War the B&O was the only railroad into Washington and was used by Federal forces for supply trains, with heavy guards stationed along the viaduct. The Baltimore and Ohio named the bridge the "Thomas Viaduct" after the company's president, Philip E. Thomas, illustrating the company's confidence in the structure. Some skeptical engineers however, thinking the bridge would collapse under its own weight,

(continued)

NATIONAL REGISTER OF HISTORIC PLACES

(NATIONAL HISTORICAL INVENTORY - NOMINATION FORM
LANDMARKS)

(Continuation Sheet)

STATE Maryland	
COUNTY Baltimore	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

(Number all entries)

8. Statement of Significance: (1) Thomas Viaduct

nicknamed the viaduct "Latrobe's Folly." The error in these predictions is proven by the bridge itself. Since August 25, 1835, the viaduct has remained in constant service, carrying every type of locomotive used in the B&O's long history from the original six-ton engines of the period to the 300-ton engines of today, with no alteration or major repair. All main line traffic between Baltimore and the west passed over the Thomas Viaduct until about 1870, when the main line was rerouted along the Washington Branch.

BA-143

Form 10-300a
(July 1969)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

STATE Maryland	
COUNTY Baltimore	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM

(NATIONAL HISTORIC
LANDMARKS)

(Continuation Sheet)

(Number all entries)

6. Representation (1)

Historic American Building Survey -- large property file, data sheets--
photographs.

9. MAJOR BIBLIOGRAPHICAL REFERENCES

"The Oldest Stone-Arch Railroad Bridge in the World: The Thomas Viaduct, Across the Patapsco River," The Scientific Monthly, XLI (October 1935), 381-383.

Hungerford, Edward, The Story of the Baltimore and Ohio Railroad, New York, 1928, vol. I, pp. 153, 166-67, 171-72.

Vogel, R. M., Unpublished report, Historic American Engineering Record, Office of Archeology and Historic Preservation, National Park Service, Department of the Interior, Washington, D.C., 1965.

10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY			LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES	
CORNER	LATITUDE	LONGITUDE		
	Degrees Minutes Seconds	Degrees Minutes Seconds		
NW	° ' "	° ' "		
NE	° ' "	° ' "		
SE	° ' "	° ' "		
SW	° ' "	° ' "		

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: .5

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

STATE:	CODE	COUNTY	CODE
Maryland	24	Howard County	027
Maryland	24	Baltimore County	005
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE

SEE INSTRUCTIONS

11. FORM PREPARED BY

NAME AND TITLE: Patricia Heintelman, Architectural Historian, Landmarks Review Project; original form prepared by S. Sydney Bradford, 1963.

ORGANIZATION: Historic Sites Survey, National Park Service DATE: 7/30/74

STREET AND NUMBER: 1100 L Street NW

CITY OR TOWN: Washington STATE: D.C. CODE:

12. STATE LIAISON OFFICER CERTIFICATION	NATIONAL REGISTER VERIFICATION
<p>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:</p> <p>National <input type="checkbox"/> State <input type="checkbox"/> Local <input type="checkbox"/></p> <p>Name _____ (NATIONAL HISTORIC LANDMARKS)</p> <p>Title _____</p> <p>Date _____ (NATIONAL HISTORIC LANDMARKS)</p>	<p>I hereby certify that this property is included in the National Register.</p> <p>(NATIONAL HISTORIC LANDMARKS), Landmark Designated: Jan. 1967 Director, Office of Archeology and Historic Preservation date</p> <p>(NATIONAL HISTORIC LANDMARKS), Boundary Certified: Cornelius Whelan - 6-19-75 Date _____ date</p> <p>ATTEST: Chief, Hist. & Arch. Surveys</p> <p>Boundary Affirmed: _____ date Keeper of The National Register Director, O.A.H.P.</p>

NATIONAL REGISTER OF HISTORIC PLACES
PROPERTY MAP FORM

(Type all entries - attach to or enclose with map)

STATE Maryland	
COUNTY Baltimore	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

SEE INSTRUCTIONS

1. NAME			
COMMON:		Thomas Viaduct, Baltimore & Ohio Railroad	
AND/OR HISTORIC:		Thomas Viaduct	
2. LOCATION			
STREET AND NUMBER:			
CITY OR TOWN:			
Relay			
STATE:		CODE	COUNTY:
Maryland		24	Baltimore
			CODE
			005
3. MAP REFERENCE			
SOURCE:			
U.S.G.S. Map, 7.5 Relay Quadrangle			
SCALE:			
1:24000			
DATE:			
1957 Photorevised 1966			
4. REQUIREMENTS			
TO BE INCLUDED ON ALL MAPS			
1. Property boundaries where required.			
2. North arrow.			
3. Latitude and longitude reference.			

BA-143

NATIONAL REGISTER OF HISTORIC PLACES
PROPERTY PHOTOGRAPH FORM

(Type all entries - attach to or enclose with photograph)

STATE Maryland 07-143	
COUNTY Anne Arundel	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

SEE INSTRUCTIONS

1. NAME			
COMMON: Thomas Viaduct		AND/OR HISTORIC: Thomas Viaduct	
2. LOCATION			
STREET AND NUMBER: C&O-B&O Railroad where it crosses Patapsco River, 2200 feet northwest of U.S. Route 95.			
CITY OR TOWN: near Relay			
STATE: Maryland	CODE: 24	COUNTY: Baltimore	CODE: 005
3. PHOTO REFERENCE			
PHOTO CREDIT: National Park Service			
DATE OF PHOTO: 1964, verified July 1974			
NEGATIVE FILED AT: National Park Service, Washington Negative File			
4. IDENTIFICATION			
DESCRIBE VIEW, DIRECTION, ETC. View of Thomas Viaduct looking North.			

NATIONAL REGISTER OF HISTORIC PLACES
PROPERTY PHOTOGRAPH FORM

(Type all entries - attach to or enclose with photograph)

STATE Maryland	
COUNTY Baltimore	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

SEE INSTRUCTIONS

1. NAME			
COMMON: Thomas Viaduct		AND/OR HISTORIC: Thomas Viaduct	
2. LOCATION			
STREET AND NUMBER: C&O-B&O Railroad where it crosses Patapsco River, 2200 feet northwest of U.S. Route 95.			
CITY OR TOWN: near Relay			
STATE: Maryland	CODE: 24	COUNTY: Baltimore	CODE: 005
3. PHOTO REFERENCE			
PHOTO CREDIT: Patricia Heintzelman			
DATE OF PHOTO: July 1974			
NEGATIVE FILED AT: Historic Sites Survey, National Park Service			
4. IDENTIFICATION			
DESCRIBE VIEW, DIRECTION, ETC. View of intrusions around viaduct			

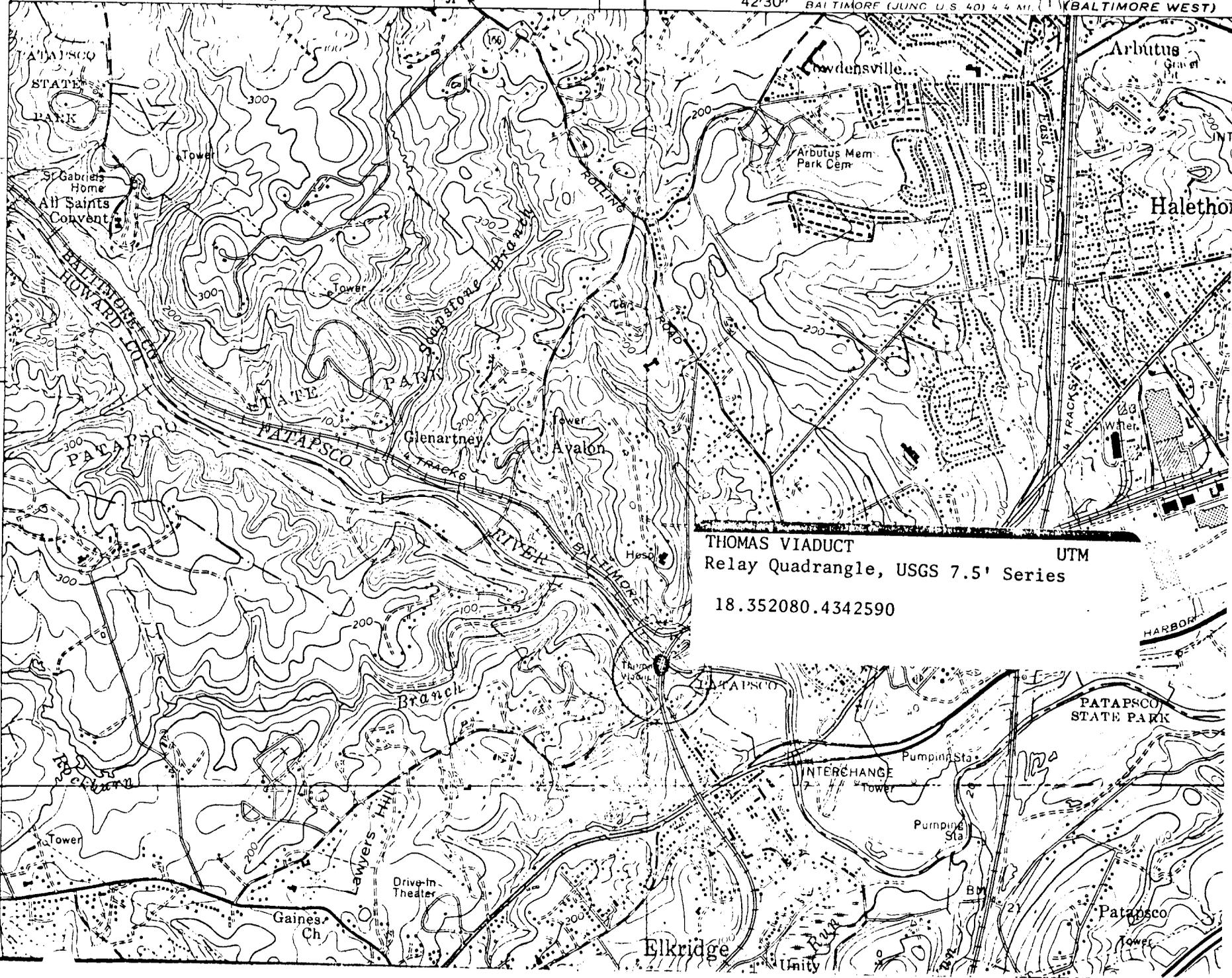
BA-143

4345000m N

4344

4343

4342



THOMAS VIADUCT
 Relay Quadrangle, USGS 7.5' Series
 UTM
 18.352080.4342590

HARBOR

PATAPSCO STATE PARK

INTERCHANGE

Pumping Sta.

Pumping Sta.

Drive-In Theater

Gaines Ch.

Lawyers Hill

Elkridge

Unity

Patapsco

Tower

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

