



## DC STATE HISTORIC PRESERVATION OFFICE DETERMINATION OF ELIGIBILITY FORM

### PROPERTY INFORMATION

Property Name(s): Streetcar tracks and substructure  
Street Address(es): 8th Street SE between Virginia Avenue SE and L Street SE  
Square(s) and Lot(s): West of square 929 in 8th Street SE  
Property Owner(s): District of Columbia Department of Transportation  
Please include a current map(s) to indicate the location of the property/properties.

The property/properties is/are being evaluated for potential historical significance as/for:

- An individual building or structure.
- A contributing element of a historic district (specify):
- A possible expansion of a historic district (specify):
- A previously unevaluated historic district to be known as (specify):
- An archaeological resource with site number(s) (specify):
- An object (e.g. statue, stone marker etc.) (specify):
- A new multiple property/thematic study regarding (specify):
- Association with a multiple property/thematic study (specify): Streetcar and Bus Resources of Washington, DC, 1862-1962, listed on the NRHP in 2006
- Other (specify):

Description, rationale for determination, photos & other pertinent information (enter below):

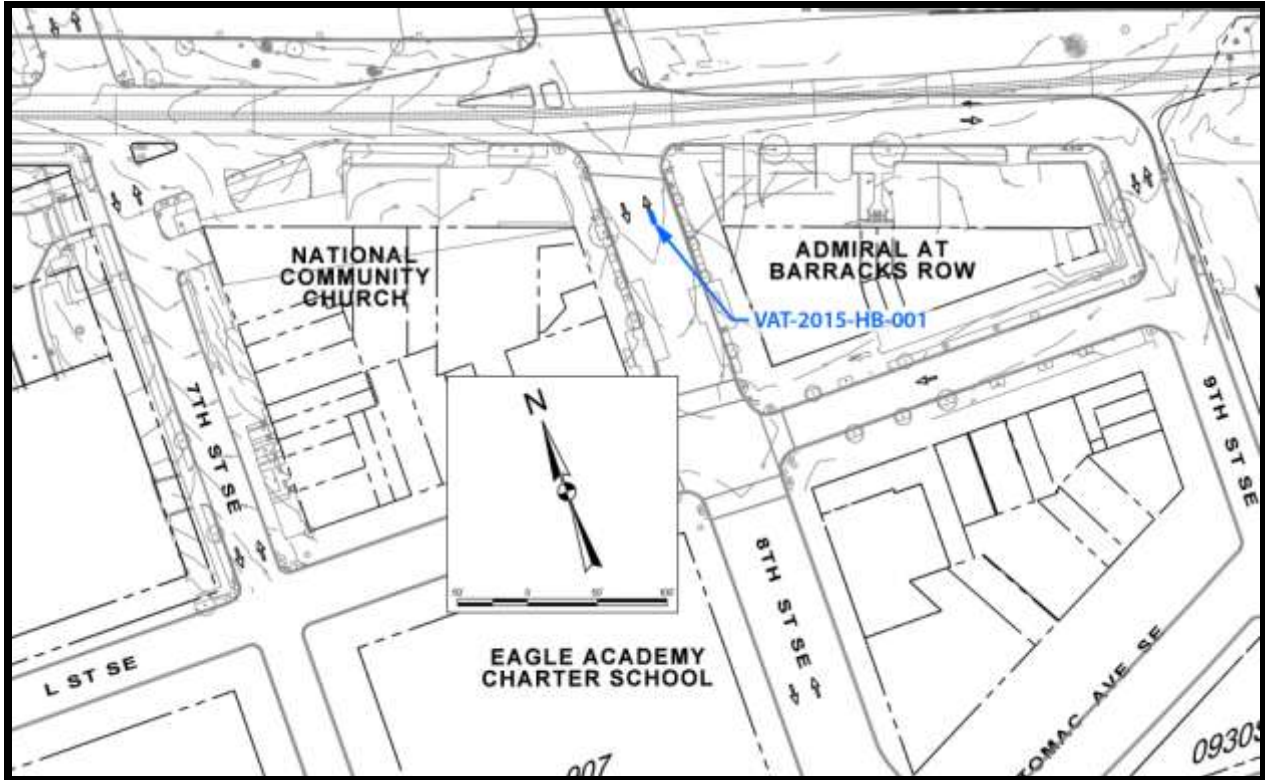
#### Property Description

One set of streetcar tracks were encountered in the east center lane of 8th Street SE under approximately 10 cm of roadway asphalt and concrete (temporary field number VAT-2015-HB-001). The intact elements at this location include one slot rail, two wheel rails, two access panel frames, and two access panels for the streetcar system. Based on the presence of the access panels, this set of streetcar tracks was part of the underground conduit system installed in 1892 by the Washington and Georgetown (W & G) Railroad Company (National Capital Trolley Museum 2012).

Although only a small portion of the 8th Street SE streetcar tracks were recently uncovered, it is expected that a second set of tracks will be intact in the west center lane and the underground yokes which hold the rails and electrical conduit in place will also be extant.

These two sets of streetcar tracks represent the northbound and southbound routes leading to and from the Navy Yard Car Barn on the northwest corner of 8th Street SE and M Street SE; the tracks loop around and into the Navy Yard Car Barn. The Navy Yard Car Barn was constructed in 1891 by the W & G Railroad Company, enlarged in 1909 by the Capital Traction Company, and was listed on the National Register of Historic Places (NHRP) in 2006 (Trieschmann and Bunting 2005).

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Location of Streetcar Tracks on 8th Street SE (Temporary field number VAT-2015-HB-001)



Streetcar slot and wheel rail and access panel frame (VAT-2015-HB-001) on  
8th Street SE, looking south



1892 streetcar slot and wheel rail and access panel frame (VAT-2015-HB-001) on 8th Street SE, with the Navy Yard gate in the center background and the Navy Yard Car Barn (blue brick building) on the right background, looking south

### **Historic Context**

On May 17, 1862, Congress enacted a law that established a local street railway company. The W & G Railroad Company broke ground on the installation of the metal rails near the Capitol building on June 12, 1862. Performed by nearly one hundred men, the work progressed steadily with service starting at the Capitol and extending to the State Department (now the site of the north annex of the Treasury Building, next to the Riggs Bank at 15th Street and New York Avenue) near the White House on July 29, 1862. The W & G Railroad Company's well established, centralized lines served as the backbone of the street railway system in Washington, D.C. throughout the horse-drawn era, a period that extended from July 29, 1862 to May 26, 1900. The company's Pennsylvania Avenue line served the major business and commercial districts in the city, passing the White House, the Treasury, Center Market, the Navy Yard, and the Capitol.

As early as 1872, a successful cable road was built and operated in San Francisco, California. Slowly, during the late 1870s and early 1880s, thirty other American cities deployed cable for some of their major routes. The system used stationary power sources to operate underground steel cables. The transition to underground cable cars was boosted by the 1889 Congressional legislation that mandated the phasing out of horse-drawn railway vehicles and prohibited the use of overhead electric wires. Since the only feasible electric traction system in use during this period required overhead electric wires, the law gave great funding advantage to underground cable car railways within the original boundaries of the District of Columbia. Although short lived, the cable system replaced the use of horsepower on four major lines by 1890.

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City of Washington Streetcar Routes, 1880 (King 1989:15).

On May 12, 1890, the District of Columbia's first cable car operation opened along the existing 7th Street line. Established by the W & G Railroad Company, the single line was three-and-one-half miles long with its stationary powerhouse located at the Arsenal terminus (now Fort McNair, located at 4th and P Streets, SW). Following the immediate success of their 7th Street line, the W & G quickly converted its other two lines -- along Pennsylvania Avenue and 14th Street -- to cable operation. In 1895, the W & G Railroad Company merged with the Rock Creek Railway Company to form the Capital Traction Company.

By the turn of the twentieth century, public transportation in central Washington, D.C. had been converted entirely to underground electric traction systems. Electric underground systems provided speed, comfort, and ease of travel far more effectively than cable power. The cable system proved to be an expensive technology with limited application and its use in the nation's capital had clearly been propelled by congressional mandates that banned both horse-power and overhead electric power lines.

With the rush of new railway charters in the latter part of the nineteenth century, Washington, D.C. had a dozen independent streetcar lines by 1895. In the late nineteenth century, consolidation of utilities was a national trend. Although outside interests played a part in the consolidation of streetcar companies in Washington, D.C., management generally remained in the hands of local companies. Although a few minor independent street railway lines operated in Washington, D.C. after 1902, the majority of routes and services were provided by two dominant companies: the Capital Traction Company and the Washington Traction and Electric Company. The formation of the Capital Traction Company in 1895 provided high frequency service on four major routes, while a score of smaller firms were consolidated in the Washington Railway & Electric Company, which was formed in 1902.

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The underground conduit was a means of current collection for streetcars. While many experimental systems were designed in the late 1880s and 1890s, and a few experimental lines were built for demonstration purposes, only Washington and Manhattan Island ever used the technology to any extent. In both cases, this was because legislation was passed that mandated its use, as opposed to the almost universal practice of overhead wire. The system was extremely expensive to build and to operate and maintain, and also posed safety issues which would probably render it too hazardous for modern usage. Because of this, even in Washington and on Manhattan Island, other methods of current collection were used wherever possible; overhead wire on parts of several lines in the District of Columbia and battery cars on the light crosstown lines in Manhattan (overhead wire being used in the other four Boroughs).

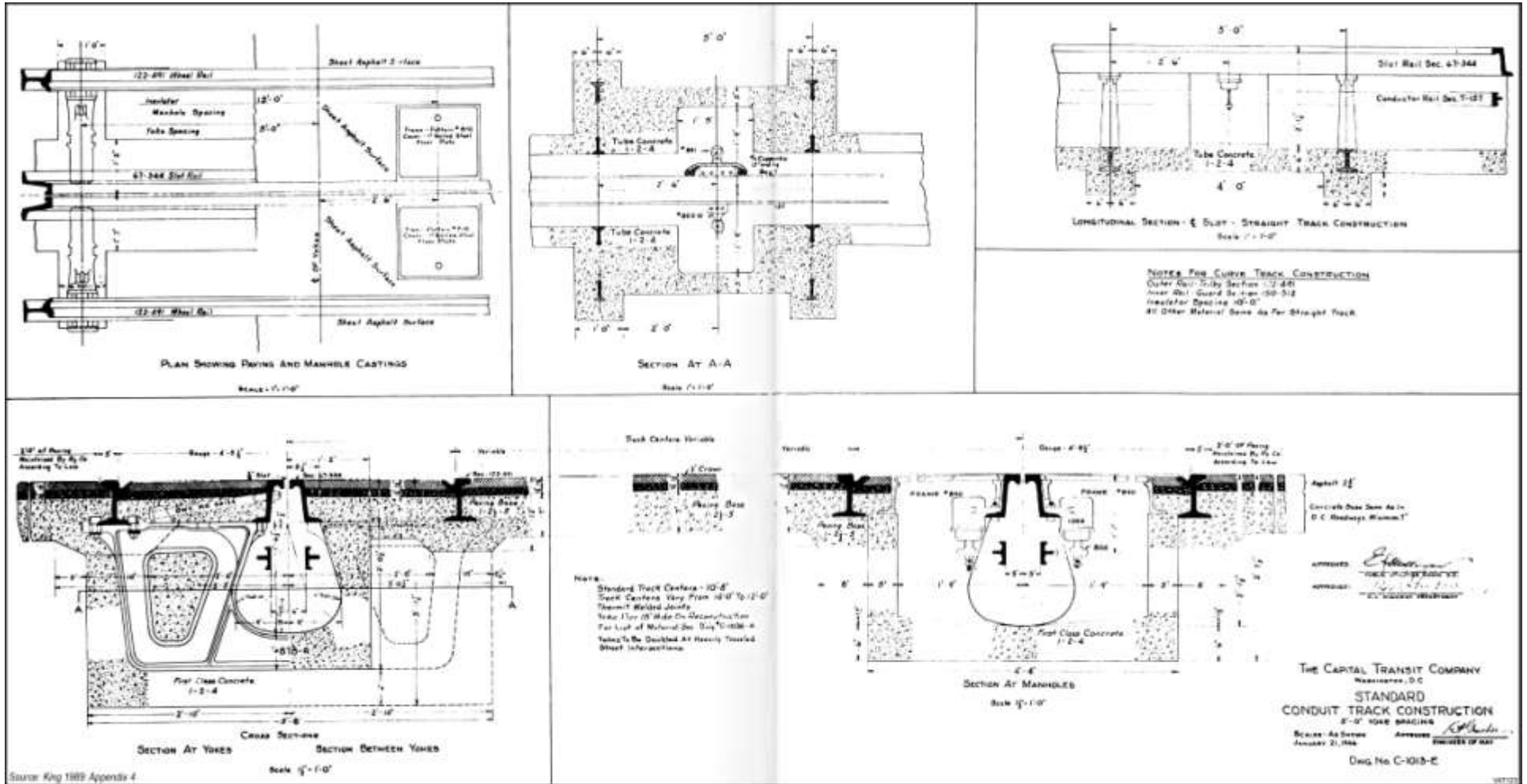
Perhaps the most cogent technical description of the conduit system of current collection was written by the late John E. Merrikan, as found in *100 Years of Capital Traction* (King 1989: 303):

The underground conduit current collection system used by Washington streetcars was very complex and expensive to construct. Generally speaking, because of this, it was confined to old downtown while suburban sections used overhead trolley. Essential to the system were 350 lb. cast iron yokes at five-foot intervals beneath the streets. To these yokes were attached the running rails and slot rails at street surface level. A concrete conduit ran beneath the slot rails and in that conduit were "T" shaped conductor rails supported by insulators hung from the bottom flange of the slot rail. A "plow" suspended from the truck of the car had two sliding shoes which collected positive and returned negative current from and to the two conductor rails.

At switches there was a necessary break in the conductor rails – so that the positive and negative conductors would not meet on crossing. This break, though short, required coasting and current cut off. The switch mechanism, in addition to directing the car wheels, had to direct the plow in the proper direction. This was accomplished with an underground moveable plate which moved with the switch points.

There were hatches at the surface to gain access for cleaning, maintenance and repair of the conduit system. These were of two varieties. First there were hatches between the running rails and slot rails above each insulator. Then there were hatches in the slot rail, periodically, to allow for removal of damaged plows.

The route additions during the pre-World War I era essentially completed Washington, D.C.'s street railway system (King 1989:92). By the early 1920s, Washington, D.C.'s streets were filled with a variety of transportation modes, including pedestrians, streetcars, buses, automobile jitney services, and increasing numbers of private automobiles, not to mention the outmoded horse-drawn vehicles still traveling the streets. Right-of-way rules were lax and the few traffic signals that existed were uncoordinated, causing major street congestion. As cars wove their way across lanes in order to avoid other stopped vehicles, including streetcars and horse-drawn carriages, automobile pile-ups became commonplace. Pedestrian safety was compromised, as streetcar riders tried to thread their way across the traffic to the streetcar stops located at the center of the wide city streets. Streetcars came to be seen as a cause, rather than a victim of this congestion.



Original design drawings for the underground conduit streetcar system (King 1989: 304-305).

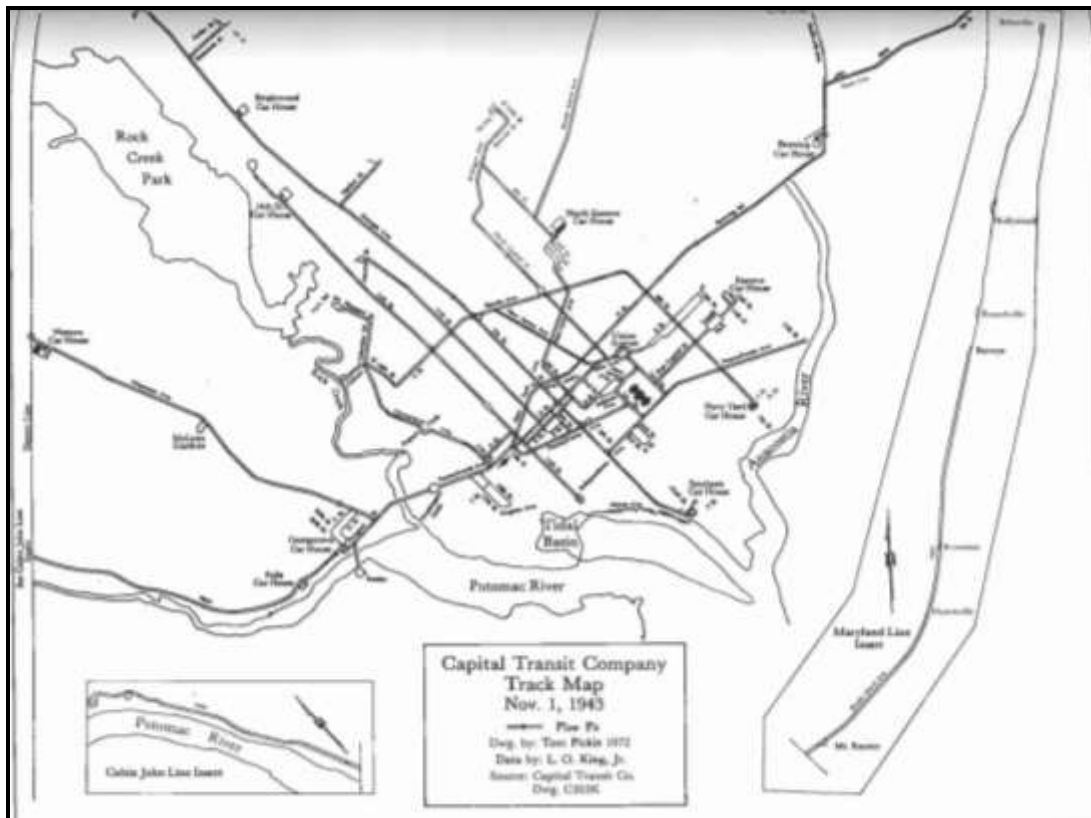


Street Railway Trackage of the District of Columbia, 1925 (King 1989:129).

Peak usage, congestion, re-organization, and the gradual replacement of the street railway system by the more economical and flexible bus system marked the final chapter in the story of Washington, D.C.'s streetcars. This transformation was under the direction of the Capital Transit Company (CTC), which was formed in December 1933. The company joined all street railways in the District of Columbia and the Washington Rapid Transit (an independent bus company established in 1921) under one management for the first time.

The new company—more receptive to the growing anti-streetcar sentiment, but primarily interested in increasing company profitability—was quick to begin the systematic substitution of streetcar lines with all-bus routes. Eventually, political and economic pressures combined to force the elimination of Washington, D.C.'s streetcar system altogether. In 1935, five major lines or segments of the Capital Transit Company were replaced by bus service. The P Street line from Dupont Circle to Wisconsin Avenue was converted to bus service, as was the Anacostia-Congress Heights line east of 1st and B Streets, SE. One year later, in 1936, the CTC reorganized its remaining streetcar routes. The routes that were established in 1936 remained the basic routes for the rest of the streetcar era.

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Capital Transit Company Track Map, 1943 (King 1989: 173).

Between 1956 and early 1962, all the remaining streetcar lines were either eliminated or converted to bus routes. The streetcars, which had provided transit in and around Washington, D.C. since 1862, made their last trips on January 28, 1962, thereby ending an era of transportation that had profoundly affected the residential development and economic growth of the nation's capital.

### **National Register of Historic Places (NRHP) Determination of Eligibility**

As identified in the NRHP multiple property listing, Streetcar and Bus Resources of Washington, D.C., 1862-1962 (Trieschmann *et al.* 2005), rail infrastructure including but not limited to streetcar tracks and alignments, were identified as a property subtype and contributing element to the multiple property listing. Various configurations and elements of the rail infrastructure, such as tunnels, loops, corner configurations, plow pits, and turn-arounds, were identified with the potential to yield archaeological information on the underground conduit technology.

This portion of the 8th Street SE streetcar tracks represents the basic configuration of slot and wheel rails, access panels, and subsurface yokes in a straight alignment. Unique elements such as loops, corner configurations, or plow pits are not likely to occur at this specific location.



**References Cited**

King, LeRoy O.

1989 *100 Years of Capital Traction: The Story of Streetcars in the Nation's Capital*. National Capital Trolley Museum, Silver Spring, Maryland. Original publication 1972.

Kohler, Peter C.

2001 *Capital Transit, Washington's Street Cars, The Final Era: 1933-1962*. National Capital Trolley Museum, Colesville, Maryland.

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2005 *Washington and Georgetown Railroad Car House (Navy Yard Car Barn)*. *National Register of Historic Places, Nomination Form*. Prepared by EHT Traceries, Inc., Washington, D.C.

Trieschmann, Laura V., Robin J. Weidlich, Jennifer J. Bunting, Amanda Didden, and Kim Williams

2005 *Streetcar and Bus Resources of Washington, D.C., 1862-1962*. *National Register of Historic Places, Multiple Property Documentation Form*. Prepared by EHT Traceries, Inc., Washington, D.C. Available on line at: <http://focus.nps.gov/pdfhost/docs/NRHP/Text/64500948.pdf>.

National Capital Trolley Museum

2012 DC Street Railway Archeology #1. Available on line at: [https://www.facebook.com/permalink.php?id=183298035045286&story\\_fbid=455096424505285](https://www.facebook.com/permalink.php?id=183298035045286&story_fbid=455096424505285)

**PREPARER'S DETERMATION**

Eligibility Recommended

Eligibility Not Recommended

Applicable National Register Criteria:

A B C D

Applicable Considerations:

A B C D E F G

Susan L. Bupp, Cultural Resources Specialist, Parsons

September 14, 2015

Prepared By: (specify Name, Title & Organization):

Date:

**DC SHPO DETERMINATION AND COMMENTS**

Determined Eligible

Determined Not Eligible

Reviewed By (specify):

Date:

DC Government Project/Permit Project Log Number (if applicable): \_\_\_\_\_