

APPENDIX 6: HISTORIC PRESERVATION REVIEW BOARD STAFF REPORTS

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HISTORIC PRESERVATION REVIEW BOARD STAFF REPORT AND RECOMMENDATION

Landmark/District: **Decatur Street Car Barn/Northern Bus Garage** (X) Agenda
Address: **4701 14th Street, NW** () Consent Calendar
Meeting Date: **May 28, 2020** (X) New Construction
H.P.A. Numbers: **20-176** (X) Alteration
(X) Demolition

The Washington Metropolitan Area Transit Authority (WMATA), Beyer Blender Belle Architects and Wendel Architects seek conceptual design review for an extensive renovation of the historic Decatur Street Car Barn and its substantial additions. The goal of the project, which includes rehabilitation, demolition and new construction, is to modify the facility so it meets current bus garage standards.

Decatur Street Car Barn

The Decatur Street Car Barn was designed in the Italian Renaissance style by the local architectural firm of Wood, Donn and Deming, and constructed for the Capital Traction Company in 1906-1907. The National Register nomination describes the building as "...a high style and sophisticated piece of architecture...deliberately designed to serve as a company landmark..." Its most prominent façade, which faces 14th Street, resembles a 16th century Italian villa and features a prominent tower, large arched streetcar openings, a long arcade of windows, and decorative stone detailing such as keystones, quoins and belt courses. The building was originally 537 feet by 208 feet and occupied approximately half of its site, but that changed significantly as the carbarn was converted for bus garage use over time.

Bus-related modifications began as early as 1926 when the lower level started being used for bus storage and an addition was constructed on the east side for similar purposes. By 1959, the entire building was converted to a bus garage. WMATA assumed ownership of the property upon its creation in 1967 and substantially expanded the building in 1989-1992 via construction of a large, one-story bus maintenance facility and storage area. This expansion replaced virtually the entire roof of the original building, destroyed a great deal of historic interior fabric, altered the original exterior, and enclosed Decatur Street to provide additional bus egress, thus effectively engulfing the historic car barn in new construction. Upon completion, the bus garage occupied its entire site. However, the historic building still retained sufficient integrity to be designated a DC landmark in 2012 and listed in the National Register of Historic Places in 2013.

Proposal

Substantial renovation is necessary to accommodate WMATA's expanding and modernizing bus fleet. Larger spaces are required to allow 40' and 60' articulated buses to circulate

through the facility; additional clearance is necessary for taller diesel buses and planned overhead charging equipment for electric buses; more service bays and storage areas are needed to meet future needs; and additional space is required to house updated air filtration equipment, solar panels and office space for WMATA employees. In order to meet these project goals, WMATA proposes to gut most of the existing building, reconfigure the interior, and construct new levels above and below.

Evaluation

The proposed extensive modifications will destroy practically all remaining historic interior fabric, the original eastern wall, and the majority of the car barn's north and south elevations, thus resulting in substantial demolition that is inconsistent with the purposes of the DC Historic Landmark and Historic District Protection Act (Act). To offset this loss, the 14th Street elevation will be largely restored, and portions of the north and south façades will be retained and revealed to express the car barn's historic configuration.

Restoration of the primary 14th Street elevation will include in-kind replacement of slate roofs, substitution of 1980s windows with historically accurate replacements, removal of brick infill, demolition of a non-historic stair tower, and a variety of standard preservation treatments such as repointing, crack repair and cleaning of the brick facade. The large arched openings that originally provided ingress and egress for streetcars will be glazed with new storefront entries to facilitate adaptive use of former administrative areas for community retail. One of the historic arcade windows will be also be converted to a door to provide additional retail ingress/egress.

On the southern end, new construction will be set back to expose the distinctive rounded corner and two bays of the former streetcar barn as well as the original smokestack that is located just beyond. These features will provide historic interest and offer a sense of the building's original form, especially when viewed from the intersection of 14th and Buchanan Streets. The design of the newly constructed office wing nearer to the intersection has been made compatible with the historic building by echoing the horizontal belt courses and rhythm of its windows, and by using similarly scaled brick that is similar in color to the stone details of the streetcar barn.

To the north, the new stair tower required to provide access to all existing and proposed levels of the facility has been designed as a simple glazed structure that maximizes views to the remaining portions of the historic north façade while the 1980s historicist Decatur Street enclosure has been redesigned as a simple contemporary structure that is clearly distinguishable as new construction.

The newly constructed upper levels, including the anticipated solar arrays, will be sufficiently set back to allow the Decatur Street Car barn to read like a historic building rather than a mere façade. These new levels will also be positioned far enough to the east to be minimally visible from 14th Street.

Even though the remaining elevations of the bus garage do not adjoin any historic fabric, are not visible from historic portions of the building, and are not located within a historic district, their relationship with the surrounding community could be improved. As the landmark's 14th Street elevation illustrates, it is possible for large-scale industrial buildings to compatibly co-exist with much smaller residential buildings if they have a commensurate scale, materials and detailing. The Historic Preservation Office (HPO) encourages the design team to revise the elevations proposed for Iowa and Arkansas Avenues and for Buchanan Street so that they reflect the smaller residential scale and detailing that are characteristic of the surrounding neighborhood.

Recommendation

HPO recommends that the Board:

- 1. Acknowledge that extensive renovations are necessary to meet project goals;*
- 2. Find that those aspects of the proposed concept relating to restoration of the 14th elevation and preservation of portions of the northern and southern elevations are appropriate for the historic Decatur Street Car barn;*
- 3. Find the proposed demolition of remaining historic fabric inconsistent with the purposes of the DC Historic Landmark and Historic District Protection Act, and recommend that the case proceed to the Mayor's Agent for review; and*
- 4. If the Mayor's Agent determines that the project is found to constitute a project of special merit and/or consistent with the Act, request that the Mayor's Agent direct the applicants to return to HPO for further design review to ensure final plans include an appropriate scope of preservation and restoration work to offset the loss of historic fabric.*

Staff Contact: Andrew Lewis

HISTORIC PRESERVATION REVIEW BOARD STAFF REPORT AND RECOMMENDATION

Landmark/District:	Decatur Street Car Barn/Northern Bus Garage	☒ Agenda
Address:	4701 14th Street, NW	☐ Consent Calendar
Meeting Date:	December 17, 2020	☒ New Construction
H.P.A. Numbers:	20-176	☒ Alteration
		☒ Demolition

On May 28, 2020, the Historic Preservation Review Board heard a presentation by the Washington Metropolitan Area Transit Authority (WMATA), Beyer Blinder Belle Architects and Wendel Architects regarding a proposed extensive renovation of the historic Decatur Street Car Barn. The Board did not find the concept design compatible with the landmark, citing the need to revise aspects of the newly proposed elevations on all sides. The Board also directed WMATA and its architects to seek input from the community and return with a revised concept that reflected public comments. Subsequently, on September 24, 2020, HPRB determined that the extensive demolition associated with the renovation project was inconsistent with the purposes of the DC Historic Landmark and Historic District Protection Act (Act) and referred the demolition permit filed by WMATA to the Mayor's Agent for review. The project team is now seeking approval for its revised concept in advance of the Mayor's Agent hearing.

Decatur Street Car Barn

The Decatur Street Car Barn was designed in the Italian Renaissance style by the local architectural firm of Wood, Donn and Deming, and constructed for the Capital Traction Company in 1906-1907. The original building occupied approximately half of its site but was expanded over time while being converted for use as a bus garage, most notably, when WMATA significantly enlarged the building in 1989-1992 via construction of a one-story bus maintenance facility and storage area. This expansion replaced most of the roof, destroyed a great deal of historic interior fabric, altered the original exterior, and enclosed Decatur Street to provide additional bus egress, thus effectively engulfing the historic car barn in new construction. Upon completion, the bus garage occupied its entire site. However, the historic building still retained sufficient integrity to be designated a DC landmark in 2012 and listed in the National Register of Historic Places in 2013.

Proposal

Substantial renovation is necessary to accommodate WMATA's expanding and modernizing bus fleet. To meet these project goals, WMATA proposes to gut most of the existing building, reconfigure the interior, and construct new levels above and below. To offset the loss of historic fabric, the remaining portions of the original carbarn along 14th Street, NW will be preserved and restored along with the smokestack on the southern end of the building and a good portion of the northern and southern elevations. The preservation scope was outlined during the previous HPRB review and favorably received.

Evaluation

As indicated above, the extensive demolition necessary to modify the historic structure for contemporary use will result in substantial demolition inconsistent with the purposes of the Act. This matter will be evaluated by the Mayor's Agent in the coming month. In the meantime, WMATA has responded to HPRB's earlier comments and worked with the community to revise its new construction plans as directed by the Board.

As part of its outreach, WMATA hosted several virtual community meetings, prepared three new design alternatives and conducted an on-line survey to determine which approach would be most liked by the community. Although not unanimous, a majority supported "Option 3" – the alternative that best integrated the design of the new construction with that of the historic building. This alternative was then further refined based upon comments provided in the November 2, 2020 virtual community meeting.

The most notable integration was achieved via a modified materials palette that more closely resembles the reddish colors and masonry characteristics of the historic brick building. As a result, the majority of the new construction will be clad in horizontally laid high performance concrete panels featuring a range of reddish colors similar to those used to construct the car barn walls. Although these panels will be larger than the historic brick, similarly scaled brick of a dark grey color will also be used in several areas to anchor the new building to the ground and provide a pedestrian scale, primarily at the corners where a human scale is most needed. Matching cast stone panels will also be incorporated to provide highlights that echo the decorative sandstone banding of the original building and provide interest to the façades.

In some locations, the brick and concrete panels will be laid in a screen pattern and overlapped to further break down the scale of the sizeable new construction and maximize the play of light and shadow on exterior walls. Blind brick panels reminiscent of 14th Street's long line of arched windows and inset reveals acting as "recessed piers", created by recessing areas of brick approximately 1" behind the building plane of the building, will also be utilized in some locations to provide an architectural rhythm complementary to the surrounding built environment.

As requested by the community, public art will be introduced along Iowa Avenue and potentially in other areas to minimize the scale of some larger walls and provide elements of interest. Rather than being randomly placed, however, the as yet-to-be-determined artwork will be framed between the "recessed piers" to provide a more direct dialogue between the art and the architecture. Some community comments suggested the artwork relate to the history of the building. HPO would support this approach since it would serve an educational/interpretive purpose as well as beautify the building. The previously proposed vegetative panels have been eliminated.

Another notable improvement of the revised design is the significant reduction in overall height. In addition to relating better to the strong horizontality of the historic car barn, the lower scale significantly improves the primary entrance at the southwest corner of the site.

The elimination of the large entry stair/ramp originally proposed for this corner also greatly improves the new design as does an overall simplification of massing and fenestration.

On the northwest corner, views to the historic carbarn will be substantially improved by eliminating the previously proposed glazed stair/elevator tower and restoring two original windows and more of the carbarn's northern wall. This significant revision will reduce the perception that the 14th Street elevation is merely a façade.

Finally, while some of the project renderings do include trees, it is unclear whether these fulfill the Board's earlier recommendation to incorporate more trees in the project plans and whether a landscape plan has been developed. Further study and development of landscape features may better incorporate the new facility into its surroundings.

Recommendation

For the reasons outlined above, HPO recommends that the Board:

- 1. Find the revised concept compatible with the historic Decatur Street Carbarn and its site;*
- 2. Provide any additional comments that may further improve the overall design; and*
- 3. If the Mayor's Agent determines that the project is a project of special merit and/or consistent with the Act, request that the Mayor's Agent direct the applicants to return to HPO for final design review and to ensure final plans include an appropriate scope of preservation and restoration work to offset the loss of historic fabric.*

Staff Contact: Andrew Lewis

HISTORIC PRESERVATION REVIEW BOARD STAFF REPORT AND RECOMMENDATION

Landmark/District: Decatur Street Car Barn/Northern Bus Garage	(X) Agenda
Address: 4701 14th Street, NW	() Consent Calendar
Meeting Date: October 28, 2021	(X) New Construction
H.P.A. Numbers: 21-553	(X) Alteration
	(X) Demolition

The Washington Metropolitan Area Transit Authority (WMATA), Beyer Blinder Belle Architects and Wendel Architects seeks final concept review for an extensive renovation of the historic Decatur Street Car Barn. HPRB first reviewed the concept on May 28, 2020, a related demolition permit on September 24, 2020, and a revised concept on December 17, 2020. The latter was unanimously approved by the Board conditioned upon a few minor revisions and an additional review after the Mayor’s Agent hearing of the demolition permit was complete. That hearing occurred on March 26, 2021 and the order to clear the permit was issued on September 17, 2021. The project team is now seeking approval for its final design.

Decatur Street Car Barn

The Decatur Street Car Barn was designed in the Italian Renaissance style by the local architectural firm of Wood, Donn and Deming, and constructed for the Capital Traction Company in 1906-1907. The car barn was adapted for use as a bus garage over time and significantly altered when WMATA enlarged the building in 1989-1992. This expansion left most, but not all of the remaining historic fabric along the 14th Street, NW elevation. The entire site was designated a DC landmark in 2012 and listed in the National Register of Historic Places in 2013.

Proposal

Substantial renovation is necessary to accommodate WMATA’s expanding and modernizing bus fleet. To meet these goals, WMATA proposes to gut most of the existing building, reconfigure the interior, and construct new levels above and below. To offset the loss of historic fabric, the remaining portions of the original carbarn along 14th Street, NW will be preserved and restored along with the smokestack and portions of the northern and southern elevations.

Evaluation

The most recent concept continues to reflect community input gathered via virtual meetings and an on-line survey of various design alternatives. It has also been modified to address the two specific “edits” recommended by HPRB during its last review.

Firstly, the light-colored, high performance masonry panels on the southwest corner and the Buchanan Street elevation, which the Board determined inappropriately read as a “posts & beams,” have been eliminated. These have been replaced with red masonry and grey metal panels to better integrate these elements into the overall composition. The light-colored panels

above the garage entrance on the northwest corner have also been eliminated. Subtle detailing consisting of dark-colored brick have been introduced in this area to better relate this entrance to the highly ornamented historic garage entrance immediately to the south.

Secondly, the Board's direction to better relate the east elevations to the row houses across the street has been addressed by introducing perforated screens above the previously proposed recessed panels, incorporating a dark brick belt course above the screens, setting the wall above the new belt course back 1' 4", and revising the cladding of the recessed wall from variegated red to a single shade of red. These revisions establish a more direct architectural dialogue with the residences across the street by accentuating a rowhouse rhythm, suggesting first and second story fenestration, establishing a cornice-like element at a proportionally-related height, and by playing down the greater height of the new building above the "cornice line."

Recommendation

HPO recommends that the Board approve the revised design and delegate all remaining review to HPO.

Staff Contact: Andrew Lewis

APPENDIX 7: CONSULTING PARTIES REPORT AND MEETING MINUTES

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**Consulting Parties Report
Significance, Effects, and Mitigation
November 19, 2021**

Contents

Overview
Project Background
Historic Significance and Integrity
Effects of Undertaking
Historic Fabric Analysis
Public Outreach and Comment
Potential Mitigation
Summary and Next Steps
Bibliography

Appendixes

Appendix A: Historic Fabric Analysis
Appendix B: Sample Initial Consultation Public Notification
Appendix C: Public Comment including March 11, ANC Meeting Minutes and Written
Comment provided at March 11, 2020 ANC Meeting and May 28 OP-HPO Staff
Report and Meeting Minutes and Recommendations
Appendix D: Virtual Community Engagement Meeting Announcement
Appendix E: Section 106 Consulting Parties Meeting, July 29, 2021 Meeting Minutes and Power
Point Presentation
Appendix F: Northern Bus Garage Reconstruction Memorandum of Agreement (draft)

Overview

The purpose of this document is to provide project information and guide consulting party input relevant to the drafting of a Memorandum of Agreement (MOA) that will mitigate the adverse effect(s) of the proposed Northern Bus Garage Replacement. A brief project background is provided along with a discussion of the building's historic significance and integrity. Effects of the project on the building and its historic significance will be examined, and potential measure of mitigation of adverse effects identified.

The Washington Metropolitan Area Transit Authority (WMATA) plans major reconstruction of its Northern Bus Garage facility, located at 4615 14th Street NW in Washington, D.C. The building occupies Squares 2811 and 2015 and has a 5-sided footprint. The property is defined by the north end (formerly a section of Decatur Street), and an east boundary consisting of Iowa and Arkansas Avenues NW. The south boundary is Buchanan Street NW and the west side elevation is the building façade and fronts 14th Street NW.

The Northern Bus Garage is designated a historic property, despite substantial additions and alterations made to the original 1906 building. The entire building was designated a DC Historic

Landmark in 2012 and listed in the National Register of Historic Places (NRHP) as the Capital Traction Company Car Barn the following year (listed May 22, 2013, #13000290). The period of significance for the NRHP listing is 1906 – 1959, the end date marking the conversion of the building from a streetcar facility to a bus garage.

WMATA's proposed replacement of the Northern Bus Garage is funded with federal money from the Federal Transit Administration (FTA), requiring compliance with Section 106 of the National Historic Preservation Act (Section 106). Section 106 consultation began in Spring of 2019 and involved WMATA, the Federal Transit Authority (FTA), and the District of Columbia State Historic Preservation Office (DC SHPO). A site visit consultation and inspection of the facility to assess remaining historic fabric resulted in the FTA and the DC SHPO informally agreeing that the undertaking would result in an adverse effect.

Subsequent design has changed the initial concept plans, requiring further consultation with FTA and the DC SHPO. Public outreach has occurred, and FTA and the DC SHPO have received 5 requests from community groups for consulting party status. All these requests were granted. The public has been invited to provide comment at an Advisory Neighborhood Commission (ANC) and the DC Historic Preservation Review Board (DC HRPB) meeting to review concept design. Following these public outreach meetings, consulting parties reviewed the property's significance and the undertaking's effects and is being asked to consider commensurate mitigation for the adverse effects, which will be memorialized in a Memorandum of Agreement (MOA).

Project Background

A 2018 Metrobus Facilities Plan summarizes facility requirements from 2018 through 2025 based on 2017 fleet projections and facility capacities for fleet maintenance and storage. This plan confirmed that the location and capacity of the Northern Bus Garage is important to the operation of major bus lines that serve high capacity downtown bus routes (Office of Bus Planning 2018, 22). The study estimated that relocating the facility operations to another site would increase annual operating costs by 30% to 50%, yet the existing facility is functionally obsolete and costly to operate.

Further analysis determined the facility is in poor condition and has structural deficiencies (Office of Bus Planning 2018, 22). The building has very limited ability to accommodate future Metrobus needs, such as long, articulated bus capacity, conversion to an electrically powered bus fleet, and converting to an alternative energy source. Major reconstruction of the facility is needed to correct current structural and operational deficiencies and accommodate future system needs (Office of Bus Planning 2018, 22).

Specific recommendations in the 2018 report includes planning for a major reconstruction of the Northern Bus Facility that will expand all or most service bays to accommodate large articulated buses needed for downtown routes. Additional recommendations for the replacement garage include structural column spacing to support 14 ft. minimum stall width, limit external access points, level grade changes, and provide for counterclockwise bus circulation.

Concept plans were developed early in 2019 for the reconstruction of the Northern Bus Garage, which included preservation of the 14th Street NW façade. In April 2019, WMATA and FTA initiated consultation with the DC SHPO requesting concurrence with the Area of Potential Effects (APE) and identification of historic properties in the APE based on review and comment on the submitted materials and plans (Lewis 2019, 3). The DC SHPO responded with concurrence with the APE and adverse effect determination. In addition, the DC SHPO noted that the entire building is listed in the NRHP and is a designated DC Historic Landmark, not just the 14th Street NW façade. A consultation and site inspection with WMATA, the FTA, and the DC SHPO occurred in July of 2019. Historic fabric was apparent in areas beyond the façade, including the original 1906 east wall, sections of the original north wall, and sections of wall in the basement. In addition, areas of the 14th Street NW façade included non-historic fabric, notably some infill construction.

The DC SHPO requested development of future plans include the identification of all fabric dating from the period of significance (1906-1959) and an analysis of the potential to include and preserve historic fabric in the design that is in addition to the façade. They further suggested that opportunities to restore historic fabric be identified. FTA formally notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect finding in July of 2019 and invited them to participate in continuing consultation. ACHP declined to participate.

The project consultant's Secretary of the Interior qualified professionals completed site visits and research on the history and development of the Northern Bus Garage and identified the extant historic fabric of the building. The resulting Historic Fabric Analysis report also discusses options for preservation of historic materials in addition to the 14th Street NW façade, and identified areas that have been altered and could be restored. The Historic Fabric Analysis report is attached as Appendix A.

Historic Significance and Integrity

The Northern Bus Garage was constructed in 1906 as the Capital Traction Company car barn. The building was designed by the prominent architectural firm of Wood, Donn, and Deming and was constructed by the firm of Richardson and Burgess. The building became operational in 1907.

In 1926, the Capital Traction Company carbarn began its dual role as a streetcar and bus garage facility. An addition was built on the east side of the building for bus storage and the space was leased to the Washington Rapid Transit Company. It is likely that many interior alterations were made in 1959 due to the building's conversion to a bus garage. For example, the streetcar interior tracks and turn tables were removed and the floors were rebuilt. Exterior photographs show new openings were added on the 14th Street NW façade, between 1949 and 1962, adjacent to the north face of the original tower. A 1914 real estate valuation plan indicates the area adjacent to the north elevation of the streetcar entrance as open and mid-century documentation indicate this area containing a wall. Photographic evidence from 1974 indicates an arched window toward the south end of the façade was changed to a door. Plans from 1978 depict this area as walled in and it now contains a door. Another change that could have occurred was an

expansion of the 1926 east addition, as this section is larger in a 1974 aerial photograph than depicted in earlier aerial images.

In 1983 WMATA built a wall around the facility to help lessen impacts to residences, and in 1985 sought plans to expand the footprint of the existing facility and conducted major renovations of the interior but did not “adversely impact the exterior of the 14th Street façade” (Resource Application, Inc, 1985, 3-33). Correspondence associated with review of the Environmental Assessment document states the 14th Street NW façade of the building contains the most historic integrity (Valge 1985, 1). WMATA’s demolition and reconstruction of major areas of the garage, included constructing additions on the north and south ends and adding roof parking for staff. The resulting building has a footprint that completely covers 2 city squares.

The Northern Bus Garage is a designated DC Historic Landmark (2012) and was listed in the NRHP in 2013. Prior to these designations, the 1998 NRHP Multiple Property Document *Resource Streetcar and Bus Resources of Washington, D.C., 1862-1962* identified the Northern Bus Garage as eligible for NRHP listing. The building is significant for association with a broad series of events (NRHP Criterion A), specifically a strong association with the development patterns of the District of Columbia’s northern suburbs. The building is also significant for its architecture as an important example of the Italian Renaissance Revival style in Washington, D.C. (NRHP Criterion C). The work of noted architects Wood, Donn, and Deming, the building, like many streetcar barns of the time, was designed to attract passengers to the developing residential areas. The high aesthetic standards for streetcar barn design not only had to promote the neighborhood, the design of these buildings was intended to promote the streetcar line companies, which were very competitive prior to the era of consolidation (Buell 2013, 2).

The ability of a property to convey its historic significance is determined by the property’s level of historic integrity. The seven aspects of historic integrity are design, location, setting, workmanship, feeling, association and materials. The Northern Bus Garage has a high level of integrity of location, setting, feeling and association. The building has not been moved, and its general setting remains intact, although the 13 ft. high wall surrounding the east, north and south elevations does substantially diminish the visual relationship between the building and its setting. This wall is not considered part of the nominated or designated property. The retention of most of the original high style façade with large vehicle openings to the street and original form and shed-like appearance convey integrity of feeling and association with 19th – 20th century streetcar barns in Washington, D.C., as required by the registration requirements for the Streetcar Barn property type in the 1998 MPD (Tracerics #64500948 2013, 8).

Effects of Undertaking

The National Historic Preservation Act, Protection of Historic Properties 36 CFR Part 800 identifies criteria for adverse effects. The first criterion is “Physical destruction of or damage to all or part of the property” and the second is “Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilize, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary’s Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines” (Assessment of Adverse Effects, 36 CFR Part 800.5). The proposed undertaking meets both criteria. Therefore, FTA has found

and DCSHPO has concurred that the project may result in adverse effects to historic properties. While minimization measures are being pursued in order to retain and restore historic fabric, as noted in Project Background, the avoidance of effects to this project is not feasible or prudent. Internal bus circulation requirements and new technologies, such as developing an electric bus fleet, could not be accommodated while preserving the interior walls that represent the east and interior and exterior walls of the 1906 car barn.

Historic Fabric Identification and Analysis

To further understand the undertaking's effects and to guide further design development, an analysis of the existing historic fabric was conducted. The complete historic fabric analysis is found in Appendix A.

WMATA acquired the 1906 Capital Traction Company car barn in 1966. This architect designed Italian Renaissance Revival style building was constructed to store, maintain and repair streetcars. Alterations over the years included construction of a basement (1926), an eastern addition, (since removed), and changes resulting from the 1959 building conversion from a streetcar car barn to a motorbus garage. At this time, several changes were made to the basement level's east side in order to accommodate the storage, maintenance, and servicing of buses.

Substantial renovations were again done to the building in the 1980s and early 1990s. In 1983, a 12 ft. high brick wall was built around the facility's north, east, and south side to screen the garage and act as a noise barrier (Valge 1985, 1). Additional renovation work done in 1987 included replacing all the original windows with metal frames and replacing the original roof with a steel frame roof (NRHP 2013, 11). In 1989 major renovation and new construction started on the building. Five rowhouses, a store, and an autobody repair shop all on Buchanan Street were demolished, along with the 1926 east addition. These buildings and the garage addition were replaced by a one-story addition to the garage. The new addition resulted in the Northern Bus Garage covering almost the entirety of Squares 2811 and 2815 and including a one-story open parking deck to the north and east of the original car barn. At the north end of the building a new bus entrance and ramp down to the basement was constructed, and an elevator tower was added. This work was completed in 1992.

The original 1906 building footprint is retained inside the current, much larger building but this historic fabric contains many alterations. The lower level contains historic columns, ceiling slabs, original brick walls and stepped concrete foundation. The basement floor is new and lower than the original, and new bases were added to the original columns. Outlines of high bricked-in windows are visible in the basement, along with an original smokestack that was altered, but it retains the original coal chute door.

Sections of the original north façade of the building are evident adjacent to the 1987 north end bus entrance. Brick walls with stone quoins and stone stringcourses, water tables and bases are evident. A pavilion with truncated hip roof contains slate shingles, and a coved entablature with stucco finish. This feature dates from the original construction, however it caps walls containing large bus openings cut into the walls during the late 1980s. The angled wall on the north

elevation is also original, but it also has a non-original large rectangular bus opening cut into the wall face.

Additional upper level extant historic fabric includes a perpendicular brick wall that extends south from the original north wall. A long north-south section of the east or rear wall of the original building is also evident and contains bricked-in large arch windows similar to windows that pierce the façade. These window opening have 3 brick header row arches and are infilled with CMU block, brick, louvers, and some have partial or full glazing. An oculus window is located above and features square muntins. This round window marks the apex of the shallow slope gable feature of the original rear wall. The south interior wall of the original building appears to have been replaced with CMU block.

The exterior north end of the façade is marked by an arched bus opening dating from 1980s renovation work and consisting of brick with cast stone detailing to resemble the original architecture of the streetcar barn. South of this non-historic opening, the next section of the façade consists of an original streetcar/bus entry, administrative building, another original streetcar entrance and the original tower, a grand campanile addition to the Italian villa Administrative Building. Behind the original vehicle entrance opening and the administrative building is another tower that houses the elevator stair added in the late 1980s renovation. Similar to the northern most vehicular opening, the 1980s tower was designed to blend in with the 1906 architecture.

The diagonal streetcar opening next to the original tower contains a modern overhead door and the adjacent wall has been bricked in and a centered solid single leaf door added. The 3-story tall tower dominates the façade and marks the location of the southern half of the façade fronting the maintenance areas with the original transfer tables. The adjacent bus entry was added between 1949 and 1962, along with two flanking doors. The pediment over this opening is original to the 1906 building. Additional bus entrance and doors were added 1987 – 1992. The south end pedimented bay contains a bricked-in window arch with stone keystone. Flanking this pedimented pavilion are more alterations, including a large bus entry to the north of the replaced two large arch windows. This opening like the others added in the late 1980s has cast stone molded trim and keystone. The last two, or southernmost, arch windows were changed to double doors with arch transoms and concrete stairs accessing a community room.

Public Outreach and Comment

As part of the initiation of consultation in 2019, notification letters were sent out to organizations that were considered potential consulting parties due to their interest in the preservation of historic properties. Notification of the project and basic project description was provided, along with the concept site plan and draft APE (Attachment B). Recipients were the National Capital Planning Commission, the DC Preservation League and the Advisory Neighborhood Commission, ANC-4C. These parties were asked to comment on the undertaking's potential to effect historic properties. No responses or comments were received.

Subsequent public meetings conducted to meet WMATA Program Comment requirements elicited response from public groups. Both the 16th Street Neighborhood Association and the

Uptown Main Street organization requested the DC SHPO and FTA grant them consulting party status under 26 CFR Part 800. The Northern Busbarn Neighbors also requested consulting party status. All three requests were granted. In addition, ANC 4C02 representative Maria Barry and Ulysses Campbell, ANC 4C03 Commissioner requested and received consulting party status in November of 2020.

The March 11 ANC-4C meeting included discussion of the project and provided the public an opportunity to comment on the undertaking's effect on historic properties at the meeting or via an email or mail sent to WMATA. The meeting was used to announce the opportunity for public comment at the March 26, DC Historic Preservation Review Board (HPRB) meeting. Due to the COVID lockdown, the meeting was changed to a virtual meeting and held on May 28, 2020. The meeting included the preservation office staff report and recommendation, public comment from a representative of the Northern Busbarn Neighbors and a concept level presentation of the project by WMATA.

The DC HPO staff report for the HPRB May 28, 2020 meeting stated concern over the scale of the building not reflecting the scale of the residential neighborhood. Recommendations included further refinement of the Arkansas and Buchanan street elevations and breaking down the exterior walls' large voids. DC HPO staff noted that the presentation materials included vegetative panels that were not part of the application submission. Public comment was provided by a Northern Busbarn Neighbors representative Mr. Talib Uqdah, who questioned the overall building design stating that the building would not fit in with the early 20th century architecture of the neighborhood. He stated that the presentation did not contain renderings of the Arkansas and Iowa Street elevations. After some discussion between the applicant and the HPRB Board, the chairman of the HPRB moved the applicant revise the plans and return to the board for further review. The motion was unanimously passed. Minutes from this HPRB meeting are included in this report as Attachment C.

WMATA had applied to the DCRA for a demolition permit in September of 2020. This triggered another review by the HPRB and WMATA presented three alternative designs to HPRB during their virtual meeting on September 24, 2020. The Staff Report, again, referred the project to the Mayor's Agent to determine if the project was of special merit and recommended "further design review to ensure final plans include an appropriate scope of preservation and restoration work to offset the loss of historic fabric" (Lewis September 24, 2020).

WMATA developed a revised Community Engagement plan and used the second of four public meetings (November 11, 2020) for a Section 106 Consulting parties' consultation. A copy of the flyer for this public outreach effort is attached as Appendix D. The four (4) virtual community engagements took place in October and November of 2020. Community members were asked to register, and the presentations included question and answer sessions.

The first of four virtual community engagement meeting updated the public on the project status and design developments. A summary of project developments over the past few months included value engineering and budget issues. The value engineering resulted in the project plan or footprint being reduced and the amount of bedrock substantially reduced. Three new exterior designs were developed reflecting HPRB guidance and public comments.

An updated schedule was presented, identifying current community engagement including exterior design discussion, a December presentation of the final design to the HPRB, and a Mayor's Agent hearing on the project receiving special merit status. Dates for further review and permits are to be determined, but a target date for beginning demolition and construction is the first and/or second quarters of 2022. An online survey on the three alternative exterior designs was open from October 13, 2020 to October 27, 2020 and the results can be found at https://www.wmata.com/initiatives/plans/northern-bus-garage/upload/NBG_Community-Meeting-4_FINAL.pdf.

Following further design development, along with review and comment by the DC SHPO staff, WMATA and FTA decided to conduct another consulting parties meeting to discuss measures of minimization and mitigation. The DC SHPO had provided a few ideas and was wanting consulting party input before proceeding with developing a Memorandum of Agreement. Invitations to a virtual meeting were sent to Northern Busbarn Neighbors, Uptown Main Street, Sixteenth Street Neighborhood Association, ANC 4C-02, ANC 4C-03, FTA, and the DC SHPO. The email invitation contained brief information about existing and proposed design minimization and mitigation and emphasized the need for consulting party input on minimization and mitigation to move the process forward to conclusion.

All consulting parties participating in the meeting, except the Sixteenth Street Neighborhood Association. The meeting started with Jeff Winstel, WMATA Architectural Historian, presenting a power point presentation. The presentation provided a brief overview of the Section 106 process, including FTA Community Planner Dan Koenig explaining the role of the federal agency in the process. Steps in Section 106 that were completed were noted and additional steps needed were identified. Accepted and proposed minimization and mitigation measures were presented, followed by a request for input on this information and request for additional ideas.

The consulting parties expressed interest in installing the trolley tracks where they were historically, being laid from the street to the building entrance. There was no interest in adopting an alternative paving or artwork to mark the track alignment. Support was expressed for interpretive signage that was not only about the building but the history of the building and its association with the history of the neighborhood, including the intersection of transportation history and racial history. Ideas to be further explored included the possibility of architectural salvage. Interpretive wayside exhibits were discussed for both outside the front of the building and inside the community room. Copies of the meeting minutes and the power point presentation were provided to all participants (Attachment E).

Minimization and Potential Mitigation

Mitigation is to be commensurate to the degree and nature of the adverse effect. The adverse effect of the undertaking is the demolition of most of the building. Although the significance of the building is mostly conveyed by the façade, the MPD states that one of the registration requirements is retention of the original form or a shed-like appearance. Evidently, the brick wrap-around barrier wall along with the addition and alterations dating from the late 1980s and early 1990s did not negate a sense of the building's original form or having a shed-like

appearance. The proposed new construction may or may not achieve a sense of the original form or sense of shed-like structure. The undertaking will substantially change the building.

The minimization includes the documentation of historic fabric and restoration of elements of the 14 Street NW façade. The purpose of documentation of historic fabric is to identify what remains after all the renovation work done from 1983 to 1992. As mentioned, the listing of the building in the NRHP was after the renovation work and includes the entire building, except for the perimeter wall (Buell 2012, 1). Although the nomination provides good documentation of the changes made to the building, it doesn't explicitly identify remaining historic fabric. The Historic Fabric Analysis has the purpose of identifying and documenting historic fabric beyond the façade and guide design development of the new construction.

While some of the historic fabric will be lost due to the Northern Bus Garage Replacement project, the project presents further minimization of adverse effects by restoring parts of the 14 Street NW façade. The Historic Fabric Analysis identified changes made to the façade fenestration and additions added in the 1983 – 1992 period. The final plans for the project are to include retention of some original windows, removing the 1980s stair tower, restoring northwest corner of original building exposing historic arched windows, replacing the windows in the 14th Street NW façade, opening all bricked-in openings in the façade, brick and cast stone masonry cleaning and pointing, and reconstruction of the chimney. In addition, proposed mitigation includes a pattern/graphic pavement at location of historic trolley tracks with interpretive signage and architectural lighting of the historic 14th Street original façade.

Summary and Next Steps

The 1906 Capital Traction Car Barn was designed as a showpiece for a traction car line competing with other streetcar lines in Washington D.C. during the late 19th early 20th century period. With urban and middle-class growth, streetcar suburbs played an important role in how cities developed. The high-style Italian Renaissance Revival design of the Capital Traction Car Barn, with its massing of two Italian villas and a central grand campanile was regarded as a standout piece of streetcar barn architecture.

The building's ownership and function changed over time, eventually becoming a major motorbus storage and repair facility known as the WMATA Northern Bus Garage. Although alterations began in 1926, it was the late 1980s and early 1990s expansion and alterations of the building that resulted in the greatest change to the building. The façade along 14th Street NW however retains most of the building's historic fabric and character. In 2012 and 2013 the Northern Bus Garage was designated a DC Historic Landmark and listed in the NRHP.

An analysis of current and future WMATA Metrobus fleet needs indicated that Northern Bus Garage's location facilitates service to important high use downtown bus lines and relocating the facility would substantially increase operating costs. The building's poor condition and new technologies that had to be accommodated in the building strongly suggest the need for substantial modifications to the Northern Bus Garage. Concept plans were developed for preserving the 14th Street NW façade and some original side walls, demolishing the remainder of

the building, and constructing a new garage facility incorporating the preserved façade and historic side walls and their architectural elements.

WMATA intends to seek funding from the FTA for the Northern Bus Garage, making the project a Section 106 undertaking. Consultation with DC SHPO and consulting parties as appropriate has taken place starting in 2019 and continues as WMATA and FTA seek consensus on potential measures to mitigate the adverse effects of the project on the historic Northern Bus Garage. The Historic Fabric Analysis was produced by a WMATA consultant in order to minimize adverse effects and provide additional identification and documentation of existing historic fabric of the building and supports the design and identification of measures that will minimize the impacts on the historic property. The DC SHPO also requested the restoration of façade elements as potential minimization. WMATA and FTA have developed an outreach strategy, which includes this document, opportunities for the public to comment on the project, and targeted consultation with identified consulting parties. The last consulting party meeting took place on July 29, 2021. The meeting discussed and identified mitigation measures that will be captured as stipulations in the draft MOA. Consulting parties will be provided a draft copy of this document. The prospective signatory parties are WMATA, FTA and the DC SHPO. Comments received from the consulting parties regarding the MOA will be attached to this report, along with the fully executed MOA for the Northern Bus Garage Renovation Project.

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Appendixes

Appendix A: Northern Bus Garage Historic Fabric Analysis

Appendix B: Public Notification of Initiation of Section 106 Consultation

Appendix C: Public Meeting Minutes, March 11, 2020, OP HPO Staff Report and HPRB Meeting Minutes, May 29, 2020

Appendix D: Virtual Public Engagement Meetings Flyer

Appendix E: Section 106 Consulting Parties Meeting, July 29, 2021 Meeting Minutes and Power Point Presentation

Appendix A:

Northern Bus Garage Historic Fabric Analysis



1914 Photograph of the Northern Bus Garage looking southeast (DC History Center)

NORTHERN BUS GARAGE – HISTORIC FABRIC ANALYSIS

February 2020

**BEYER
BLINDER
BELLE**

Table of Contents

Introduction	15
History and Significance of the Building	15
Physical Description and Chronology of Development	17
Summary of Exterior Conditions	27
Summary of Treatment and Effects to the Historic Fabric	28
Bibliography	29

Table of Figures

Figure 1. 1906 photograph of the car barn and administrative offices during construction (Washington Times)	16
Figure 2. 1911 Baist Real Estate Map; pink building Capital Traction Co. (Library of Congress)	17
Figure 3. 1914 exterior photograph of northwest corner of the streetcar barn (DC History Center)	18
Figure 4. 1914 interior photograph showing the transfer table in the foreground and the skylight above (DC History Center)	19
Figure 5. 1959 Sanborn map showing the garage and the 1926 addition on east side (Capital Traction Company Car Barn National Register Nomination Form)	20
Figure 6. 1974 photograph of bus garage looking northwest; 1926 addition visible on the right (WMATA Archive, George Washington University Special Collections)	20
Figure 7. 1978 Renovation drawing showing smokestack adjacent to boiler room and coal storage (WMATA)	21
Figure 8. Angled brick wall on right constructed sometime after 1914 and prior to 1978, and 1978 angled wall with 1978 overhanging door (BBB)	22
Figure 9. Contemporary aerial image of the bus garage looking southeast (Google)	23
Figure 10. 1987 photograph looking east showing demolition (WMATA Archive, George Washington University Special Collections)	23
Figure 11. Diagram showing the extent of the original roof structure that was removed during the 1987-1992 renovation (BBB)	24
Figure 12. Bus entry at southern end of the west façade added during the 1987-1992 renovation (BBB)	24
Figure 13. Non-historic two doorways right of the pedimented bay (BBB)	25
Figure 14. Truncated roof sheltering original north elevation and 1987-1992 renovation bus openings (BBB)	25
Figure 15. 1987 roof addition abutting original east elevation with bricked-in arch windows (BBB)	26
Figure 16. Lower level of the bus garage with original columns and ceiling, and new concrete footings (BBB)	27
Figure 17. North facing streetcar/bus opening adjacent to tower and exhibiting stone cracking, spalling, and masonry soiling (BBB)	28
Figure 18. Proposed upper level plan of bus garage with historic overlay (Wendel)	30

Introduction

The Northern Bus Garage is listed in the National Register of Historic Places (NRHP) (listed in 2013) and the D.C. Inventory of Historic Sites (designated in 2012). The building is located at 4615 14th Street NW and was constructed by the Capital Traction Company in 1906. The building was referred to as the Capital Traction Company Car Barn or the Decatur Streetcar Barn. In 1959, the streetcar barn was converted to a bus garage, and in 1966 was transferred to WMATA. The building is a vital storage and maintenance facility for WMATA's bus transportation services. The original building, designed in the Italian Renaissance Revival style, is a one-story brick masonry building with partial basement level, the length of which spans two city blocks. The building appears to be two complementary masses; one being a two-story structure used as administrative offices and the other housing the repair shops and garage and featuring a three-story tower. The building was significantly altered during the 1987-1992 renovation work. During this time, the southern and eastern elevations of the building were enveloped in a one-story addition with rooftop parking. Decatur Street, to the north, was enclosed and substantial demolition to the roof, interior columns, and basement floor slab also occurred. Additionally, there were many alterations to the administrative offices and the original building elevations.

Current operational and programmatic challenges require that the bus garage be rebuilt while preserving the historic 14th Street façade of the building. It is important that the Northern Bus Garage Replacement Project (the project) meet WMATA's goals of modernization, sustainability, increased community integration, and flexibility for the future needs of electric buses while preserving the historic fabric that retains integrity and expresses the significance of the building.

FTA-funded projects undertaken by WMATA are subject to Section 106 of the National Historic Preservation Act (NHPA), requiring Federal agencies take into account the effects of their undertakings on historic properties and, if the project is determined to have an adverse effect, afford the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on such undertakings. The Section 106 process was initiated in April 2019, and the undertaking was determined to have an adverse effect by FTA and the DC State Historic Preservation Office. The ACHP then declined to participate in the consultation. The project also requires DC Historic Preservation Review Board (HPRB) review and approval because of its status as a DC Historic Site. Through the Section 106 process, the FTA has determined that mitigation will be required and recorded in a Memorandum of Agreement.

History and Significance of the Building

The bus garage was constructed in 1906 to serve as a streetcar storage and maintenance facility and house administrative offices for the Capital Traction Company (**Figure 1**). The building was designed by architecture firm Wood, Donn and Deming and was built by construction firm Richardson and Burgess, opening in 1907. In 1926, the basement portion of the building was leased to the Washington Rapid Transit Company for bus maintenance and storage. Between 1956 and 1962, all D.C. streetcar lines were eliminated or converted to bus routes. In 1959, the building was converted to a bus garage, and ownership was transferred to WMATA in 1966.¹

¹ National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

The Northern Bus Garage building was listed in the D.C. Inventory of Historic Sites in 2012, and in the NRHP in 2013 under Criteria A and C for its architectural and historic significance.² It is considered an outstanding example of Italian Renaissance Revival design for its building type and is directly associated with the streetcar system, a public transportation system that helped develop and determine development patterns of the District of Columbia.³ The building is also eligible for designation under the multiple-property document Streetcar and Bus Resources of Washington, D.C. 1862-1962. According to the multiple property documentation form, to remain eligible under Criterion C, the building must retain its high-style architectural design as well as its original form or shed-like appearance and the streetcar entry openings.⁴

The building's period of significance is from 1906-1959, spanning the period when it served as a streetcar barn.⁵ The period of significance ends when it was converted to a bus garage. Since 1959, many significant alterations have been made to the building.

Figure 1. 1906 photograph of the car barn and administrative offices during construction (Washington Times)



² Under NRHP Criterion A, properties are eligible for listing if they are associated with events that have made a significant contribution to the broad patterns of our history. Under NRHP Criterion C, properties are eligible for listing if they embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, possesses high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. Under the criteria for the DC Inventory, the property is eligible for designation based on the following values: history and architecture and urbanism.

³ National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

⁴ National Register of Historic Places, Streetcar and Bus Resources of Washington, D.C. Multiple Property Listing, Washington, D.C., #64500948

⁵ National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

Physical Description and Chronology of Development

The Northern Bus Garage site is bounded by 14th Street to the west, Decatur Street to the north, Iowa Ave to the northeast, Arkansas Ave to the southeast, and Buchanan Street to the south. The main façade of the building faces 14th Street, and therefore, the west façade is the most decorative. As originally constructed, the brick masonry car barn measured 537 feet (north-south) by 208 feet (east-west), occupying nearly half of the site on Square 2811 and a portion of Square 2815. As platted, the two squares were intended to be divided by Crittenden Street. However, because of the construction of the car barn, the road was never laid, and the squares remained joined. The 1911 Baist Real Estate Map shows the original footprint and surrounding streets of the garage. It is interesting to note the residential character of the neighborhoods to the north of the garage and that the Capital Traction Company owned the squares west of 14th Street, yet the area was not developed at the time (**Figure 2**).

Figure 2. 1911 Baist Real Estate Map; Decatur Streetcar Barn is the pink building labeled as the Capital Traction Co. (Library of Congress)



The building was designed to look like two complementary masses: a two-story structure housing the administrative offices, featuring a hipped roof with overhanging eaves, and a two-story car barn and repair shop, accentuated by a grand three-story tower with a clerestory. As designed and constructed, the garage consisted of an upper (main level) entered along 14th Street and a partially excavated lower (basement) level, accessed from the south elevation of the building. Exterior character-defining features included brick walls accented with stone belt courses, quoining, and keystones; shallow-pitched hipped roofs of the tower and administrative offices, and bracketed eaves (**Figure 3**). The garage and repair shop featured a flat roof with several large skylights and a front gable parapet. The building originally featured three streetcar entrances and exits on the west façade: two facing west and framing the

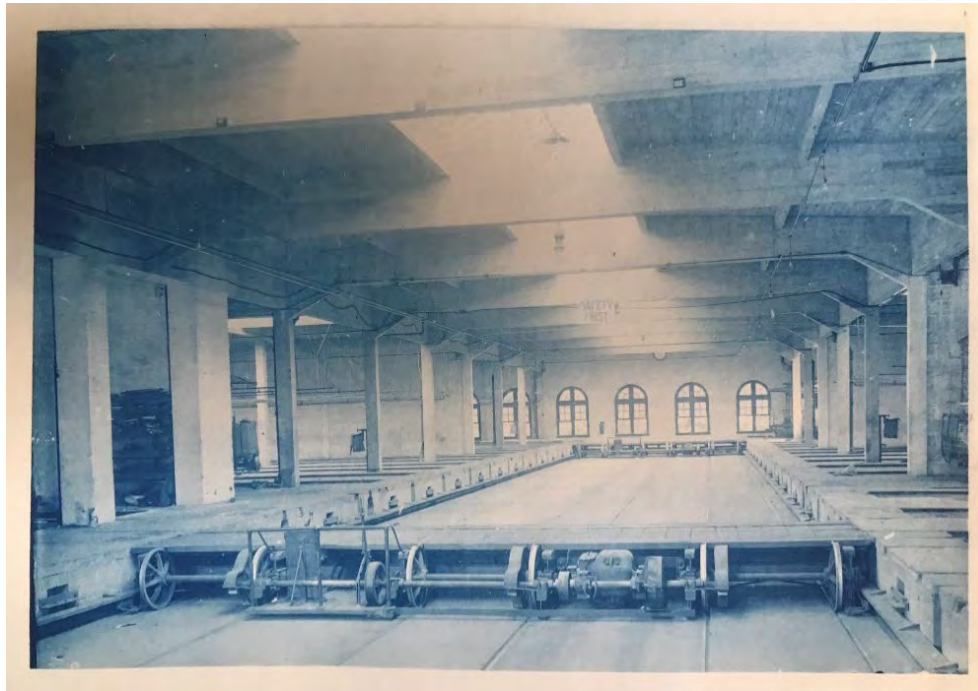
administrative offices and one facing north, immediately adjacent to the tower. Arched window openings on all elevations provided light to the garage and repair shop. The administrative offices, tower, and several projecting pavilions along the north and west elevations featured rectangular windows.

The interior of the car barn contains concrete columns which support the roof. Skylights and the arched window openings provided plentiful daylight. The upper level featured two transfer tables, allowing for the efficient mobility and storage of the street cars. The transfer tables ran parallel to each other from the front (west) to rear (east) elevations of the building (**Figure 4**).

Figure 3. 1914 exterior photograph of the northwest corner of the streetcar barn showing the administrative offices, tower, and two of the three original streetcar openings. (DC History Center)



Figure 4. 1914 interior photograph of the Decatur Streetcar Barn showing the transfer table in the foreground and the skylight above (DC History Center)



In 1926, the Washington Rapid Transit Company, established in 1921, leased the lower level of the garage from the Capital Traction Company to use for buses. According to the NRHP nomination, a one-story addition was added to the east elevation of the building at this time to provide storage facilities for the buses. The addition is visible in the 1959 Sanborn map and a 1974 aerial photograph of the bus garage (**Figure 5** and **Figure 6**). It is possible that the 1926 addition was expanded after 1959, as it appears slightly larger in the 1974 photograph.

Presumably, many interior alterations were made circa 1959 when the streetcar barn was fully converted to a bus garage. The streetcar openings along the west façade continued to be used as bus entries and exits to the garage and repair shops. It is likely that the transfer tables and bays for the streetcars were infilled. Boring samples completed in December 2019 have revealed that partial track infrastructure is extant, although encapsulated in concrete infill.

Exterior photographs indicate that an additional bus opening was added on the west façade between 1949-1962, immediately adjacent to the north facing opening to the south of the tower. The opening was cut within the pedimented projection, requiring the removal of an arched window opening. A molded cast stone surround, complementing the surrounds of the original openings, was installed. Photographs from 1974 also indicate that an arched window opening at the southern end of the west façade, to the right (south) of the pedimented parapet, was changed to a doorway.

Figure 5. 1959 Sanborn map showing the garage (then owned by the Capital Transit Company) and the 1926 addition at the east side (Capital Traction Company Car Barn National Register Nomination Form)

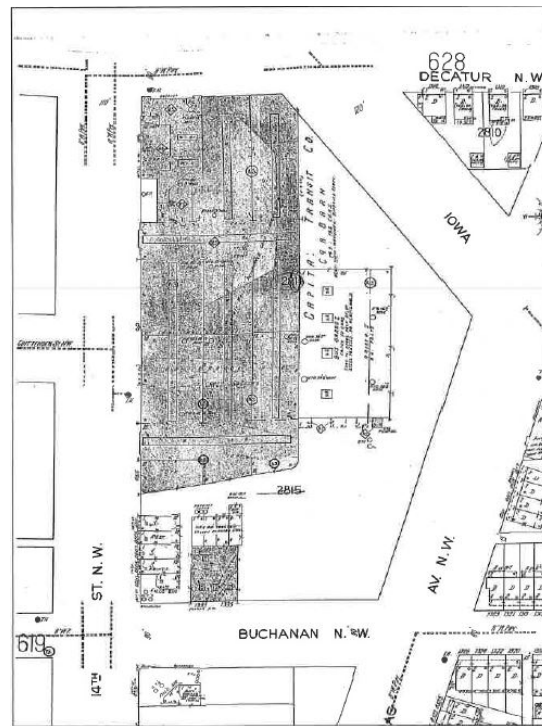


Figure 6. 1974 photograph of the bus garage looking northwest; the 1926 addition is visible on the right (WMATA Archive, George Washington University Special Collections)



The date of the construction of the smokestack at the south elevation of the garage is unknown, but photographs indicate it was constructed after 1914 and before 1962, likely dating to the period of significance. It was constructed to exhaust smoke from the coal-powered boiler room located in the lower level, as discerned from 1978 renovation drawings (Figure 7). In the 1980s, it was altered with new openings to accommodate updated mechanical equipment.

Another instance of unknown alteration occurred to the north of the tower. 1914 blueprints show that the north elevation of the tower adjacent to the streetcar opening was originally exposed, however, 1978 existing condition drawings show that an angled wall had been built at the streetcar opening, closing off the north elevation of the tower. Today, the wall is still extant, and a doorway has been inserted. (Figure 8)

Figure 7. 1978 Renovation drawing; red arrow shows the smokestack adjacent to the boiler room and coal storage (WMATA)

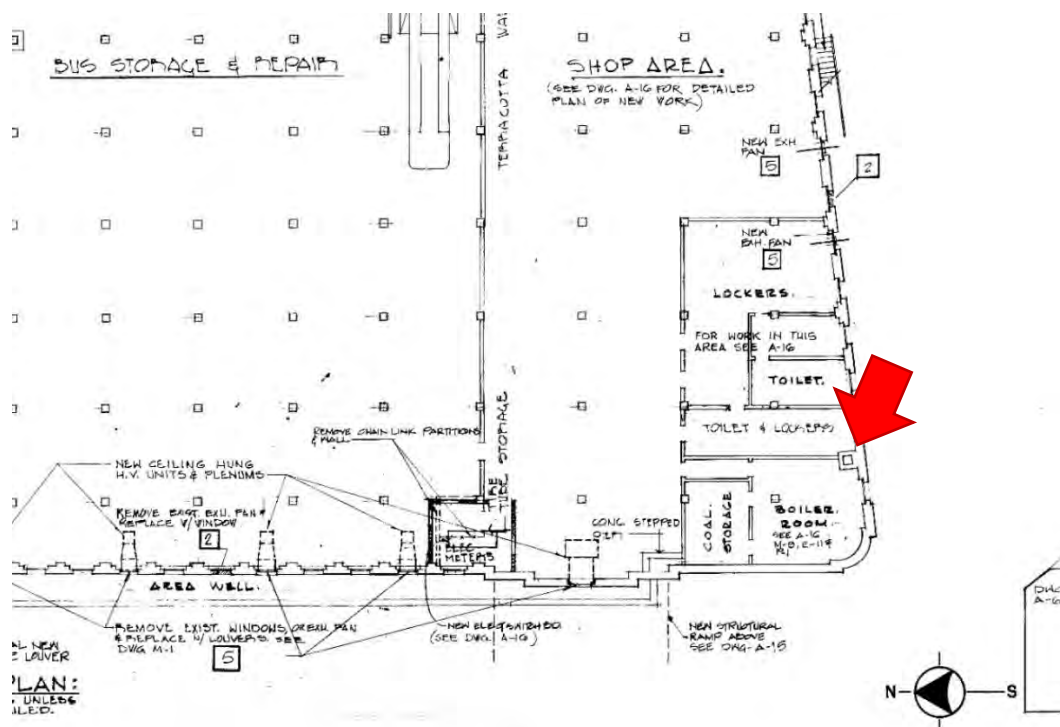


Figure 8. Angled brick wall on right constructed sometime after 1914 and prior to 1978. The other angled wall with the overhanging door was added after 1978 (BBB)



Numerous significant alterations to the property occurred in the 1980s. To reduce noise from bus operations to the surrounding neighborhoods, a thirteen-foot high red brick wall was erected in 1982-1983 around the WMATA property. The wall encircled nearly all of Squares 2811 and 2815, except for the southwest corner at Buchanan and 14th Streets.

From 1987 to 1992, the bus garage underwent a phased renovation and addition. The 1926 bus garage addition to the east of the original structure was demolished, and a one-story maintenance facility and garage with rooftop parking was constructed within the 1983 property wall, wrapping the east, south, and north elevations of the building (**Figure 9**). The majority of the original roof was demolished and rebuilt except for roofing over several bays at the northern end and a bay that remained along the full perimeter of the building (**Figures 10 and 11**). All but two of the original wood windows were replaced with aluminum windows, and several window openings were enclosed or changed to bus openings. A bus entry was inserted at the southern end of the west façade, immediately left (north) of the pedimented parapet at that end (**Figure 12**). To the right (south) of the pediment, an additional window was changed to a doorway (**Figure 13**).

The north and majority of the east elevations of the building were enclosed by the addition and bus ramp. The ramp descends west to east and north to south, following the topography of the site. As a result, Decatur Street, between 14th Street and Iowa Avenue, was closed to traffic and incorporated into the bus garage. A truncated roof encloses the original north elevation of garage. The original north elevation, which featured arched window openings, was significantly altered with new bus openings, allowing buses to easily move from the garage to the bus ramp and exit at Decatur and 14th Streets (**Figure 14**). The east elevation was enveloped by the addition. The original east elevation arched window openings are still present, although many of the fanlights have been infilled with brick or

replaced with louvers. The original east wall remains visible at the upper level interior and from the roof of the 1987 addition (**Figure 15**). The addition also made significant alterations to the south elevation of the original structure. The lower level of the south elevation was fully enclosed and many of the windows at the upper level were removed and filled with glass block.

Figure 9. Contemporary aerial image of the bus garage looking southeast (Google)



Figure 10. 1987 photograph looking east showing the extent of the demolition of ceiling and roof structure except for one bay along the perimeter of the east wall (WMATA Archive, George Washington University Special Collections)



Figure 11. Original roof structure removed during the 1987-1992 renovation in green. Red outline shows the original footprint of the garage and the blue outline shows the contemporary property outline. Building outside red outline added during the 1987-1992 renovation (BBB)



Figure 12. Bus entry at the southern end of the west façade added during the 1987-1992 renovation (BBB)



Figure 13. Two doorways to the right of the pedimented bay are non- historic. Left window opening changed to door prior to 1974 and right window changed to a door during the 1987-1992 renovation (BBB)



Figure 14. A truncated roof shelters the original north elevation and Decatur Street. Large bus openings punched in wall during the 1987-1992 renovation (BBB)



Figure 15. 1987 roof addition abuts original east elevation. Several arched windows infilled with brick (BBB)



Significant interior alterations were made to the administrative offices. Rooms were reconfigured and a new stair and elevator tower addition was constructed at the north end of the office building. The stair and elevator tower was designed to match the Italian Renaissance Revival style of the rest of the building and features the same materials, a slate hipped roof, overhanging eaves with brackets, and similar brick detailing. The interior of the garage was also altered. The majority of columns on the upper level were removed and reconstructed when the majority of the roof was demolished and rebuilt. On the lower level, the original columns and ceiling slab remain, however, the concrete floor slab was removed, and the floor was excavated approximately 12 inches and re-laid. The original columns and exterior walls are supported by non-historic concrete footings to adjust for the lowered floor (**Figure 16**).

Figure 16. Lower level of the bus garage; the original columns and ceiling are present, however, the concrete floor was removed and excavated in the 1980s. The new concrete footings below the columns are visible in the photo (BBB)



Summary of Exterior Conditions

The administrative offices and 14th Street façade exterior building fabric are in overall fair condition. Open and debonded masonry joints are present but are concentrated in vertical facing joints at the building cornices, projecting string courses, and sills. The stone and brick masonry exhibit limited spalling, cracks, perforations from ferrous metal inserts or previous attachments, inappropriate past masonry repairs and patches, soiling, and biological growth. Cracks and spalling are especially present at the stone cornice and the stone surrounds at the original streetcar openings along 14th Street. (See **Figure 17**) The pebble-dashed stucco material present at the eaves of the administrative offices and tower is in good condition, as are the hipped slate roofs. Areas of previous slate replacement are visible but appear to be in good condition.

Repair and restoration of the administrative offices and 14th Street NW masonry façade will require a variety of treatments. Cracks should be repaired and patched with grout and restoration mortar with a composition matching that of the original. Structural cracks may require the insertion of pins to further stabilize the masonry. Small spalls may be tooled to sound stone so that further spalling doesn't occur, and that water doesn't collect or pool. Larger spalls may require restoration mortar patches or Dutchman masonry repairs. All open and debonded joints should be repointed using matching mortar and missing masonry patched with matching materials. Ivy plants growing on the masonry should be carefully removed. The masonry should be cleaned using the gentlest means possible to remove soiling, staining, and biological growth. Soiling is especially apparent at the cornice and at the base of the building.

Figure 17. The north facing streetcar/bus opening adjacent to the tower exhibiting stone cracking, spalling, and masonry soiling requiring repair (BBB)



Summary of Treatment and Effects to the Historic Fabric

As discussed above, the bus garage has experienced many alterations across its 114-year history, especially as a result of the 1987-1992 renovation. Such changes have affected the integrity of the historic fabric. The 14th Street façade has been altered the least and retains much of its original Italian Renaissance Revival design. The façade, including the administrative offices and tower, has a high level of integrity of design, materials, and workmanship. The remaining elevations have been significantly modified and the integrity of design, materials, and workmanship has been diminished. The same can be said for the interior of the garage, which was significantly altered by the removal of the majority of the upper level columns, lower level slab, and roof structure.

The drawing below shows the existing historic masonry walls overlaid on the design for the upper level of the new bus garage. (See **Figure 18**) Due to the alterations of the historic fabric and the need for a new bus garage that can accommodate efficient and safe vehicle circulation for 40'-0" and 60'-0" articulated buses, the existing bus garage must be replaced. The new bus garage will also ensure adequate height clearance for newer diesel buses and future overhead charging for electric buses, be reorganized to expand the number of maintenance bays and bus storage parking, incorporate a retail element for increased community integration, will be able to 100 percent filter exhaust air, and will reduce operating costs through sustainable strategies. The replacement bus garage project proposes that the east wall and the majority of the north and south walls be demolished. However, the entire west façade, including the administrative offices and tower, would be retained and preserved allowing for the conservation, repair, and cleaning of areas of damage, weathering, soiling, and staining. There is also the opportunity to replace the existing widows with replicas of the historic windows and restore window openings that were previously infilled or replaced with louvers. Such treatments would be developed as design coordination for the project continues. Portions of the upper level of the north and

south elevations, immediately adjacent to the west façade, may be retained but will require continued design coordination and input from the Section 106 process and other review processes, before a final decision on treatment can be made.

Bibliography

Primary Resources

D.C. History Center

The D.C. History Center, located at the Carnegie Library in Washington, D.C. holds several photograph collections, including the John P. Wymer collection, Kathleen Sinclair Wood collection, the Crockett streetcar photo collection, and the Joseph Jessel streetcar slide collection, which had several photographs of the Northern Bus Garage from the 1940s through the 1960s. The Capital Transit Company records are also located at the History Center, which included photographs and blueprint drawings from 1914.

WMATA Archive at the George Washington University Special Collections Library

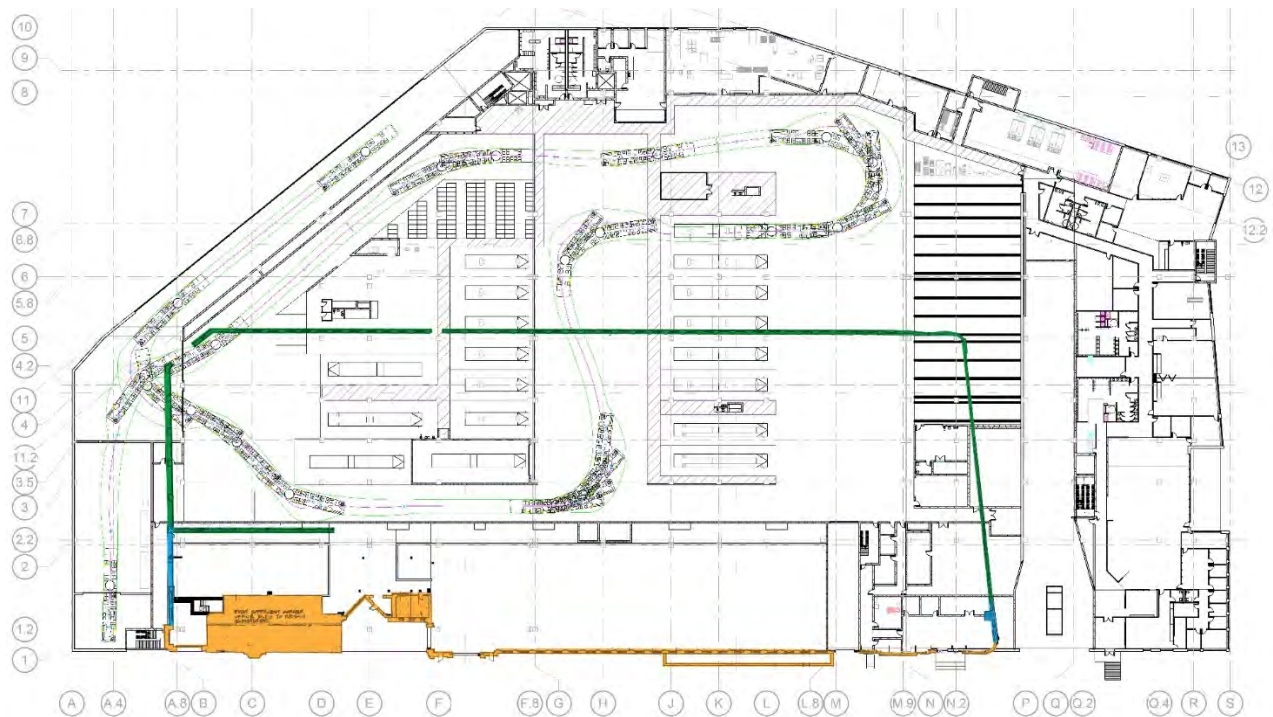
The WMATA Archives at the George Washington University Special Collections Library held many photographs of the bus garage from 1974 and of the 1987-1992 renovation and addition work.

Secondary Resources

National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

National Register of Historic Places, Streetcar and Bus Resources of Washington, D.C. Multiple Property Listing, Washington, D.C., #64500948

Figure 18. Proposed upper level plan of bus garage with historic overlay; the 14th street (west) façade will be retained along with the administrative offices and tower (Wendel)



- Historic Fabric to Remain
- Historic Fabric to be Removed
- Historic Fabric TBD*

*Potential opportunities for retention of historic fabric. Requires continued design coordination.

Appendix B:

Public Notification of Initiation of Section 106 Consultation



April 19, 2019

Mr. Michael H. Halpern
Commissioner ANC-4C,
1418 Shepherd Street NW
Washington, D.C. 20011

Dear Mr. Halpern,

RE: Section 106 Process Notification, Northern Bus Garage Replacement

The Washington Area Metropolitan Transit Authority (WMATA), with the Federal Transit Administration (FTA), is preparing to preserve the façade of the Northern Bus Garage and replace the remainder of the garage building, located at 4615 14th Street, N.W. In accordance with the *National Historic Preservation Act* and *36 CFR Part 800, Provisions for providing notice and information*, this letter serves as project notification and provides the opportunity to comment on potential impacts to historic properties resulting from the project.

WMATA has found this structure increasingly difficult to maintain and it does not meet the need for storing and servicing the 60 ft. long articulated Metro buses. Concrete within the building is de-laminating and spalling; to protect workers, nets have been installed. Due to structural concerns, buses no longer use portions of the building. The location of the garage however, remains central to the needs of serving high-demand downtown bus lines in central Washington, D.C. The proposed replacement project will preserve in place the character-defining 19/6 Italian villa style façade, maintain the existing massing of the garage structure, alleviate parking pressure on the neighborhood and accommodate Metrobus service and storage needs at this important location.

The Area of Potential Effects (APE) to historic properties was determined by the distance from which the proposed project can be seen at street level. The only historic property in the APE is the National Register of Historic Places (NRHP) listed Capital Traction Company Car Barn, currently referred to as the Northern Bus Garage. Assessment of effects did not include archaeological resources because the undertaking will only involve previously disturbed ground. Most views from historic properties within the Historic/ Architectural APR are obscured by non-historic buildings and landscaping. The proposed garage replacement project will result in the alteration and destruction of historic material, which is not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

The FTA anticipates that the proposed undertaking will have an adverse effect on the listed NRHP historic property within the APE, and anticipates further coordination with the D.C. Historic Preservation Office. Please see enclosures depicting the garage in plan with the façade to be preserved highlighted, proposed building elevation, and the APE. Please submit written comments to WMATA within the next few weeks, preferably before May 20, 2019:

Sincerely,

Jeff Winstel, AICP
Architectural Historian

cc: Rebecca Miller, Executive Director DC Preservation League
Lee Webb, Historic Preservation Specialist, National Capital Planning Commission

Enclosures

**Washington
Metropolitan Area
Transit Authority**

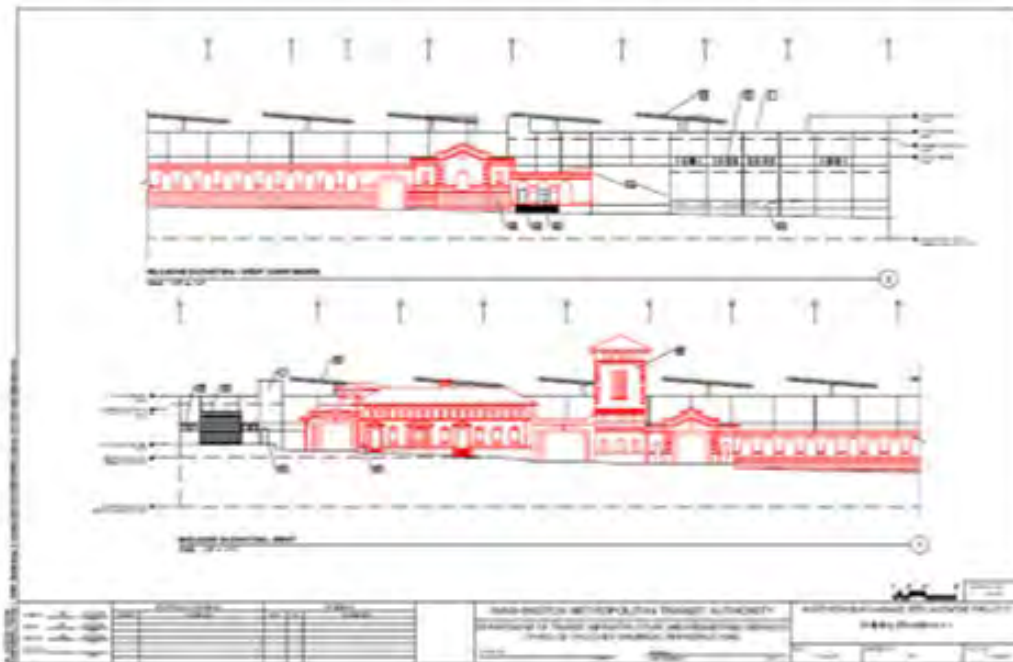
1400 K Street, NW
Washington, DC 20004
(202) 637-7000

Jeff Winstel
Architectural Historian
1400 K Street, NW
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(202) 637-7000

4000 Reservoir Road
Washington, DC 20007
(202) 637-7000



Section of façade for Preservation and Grey Areas for Demolition



Façade Elevation with New Building Behind



Area of Potential Effect(s) — Scale 1 in. = 100 ft. North ↑

Appendix C:

Public Meeting Minutes, March 11, 2020, OP HPO Staff Report and
HPRB Meeting Minutes, May 29, 2020

Meeting began at 6:30 pm.

At the appropriate point, Commissioner Maria Barry called on WMATA to offer a presentation.

Jim Ashe introduced himself, Jeff Winstel, Gretchen Pfaehler, Ann Chisholm and David Wehe of the project team.

J. Ashe then explained he was at the meeting for two purposes: to solicit a letter of support from the ANC to the Historic Preservation Review Board for the proposed design and to solicit comments under the Section 106 process. J. Ashe then provided an overview of the project (see copy of presentation). For 106/historic preservation comments, attendees were advised to use the comment forms. One comment was received.

After the presentation, a commissioner asked if, when the new Northern Bus Garage is opened, WMATA will commit to working towards city's goal of having only new tech electric bus fleet. WMATA indicated that was the intention.

WMATA stated that it would preserve the historic façade. It was noted that the original building, including the façade is considered historic and is part of the designated National Register of Historic Places property.

WMATA asked of a letter of support for the project from the ANC-4C to provide to the DC Historic Property Review Board (HPRB) for its hearing on March 26, 2020.

A commissioner noted that they had heard from the community with concerns about the design of the new building but clarified that they were not considering the design aspect tonight, only the historic preservation aspect. The community will be given opportunities in the future to comment on the design at future design charettes.

WMATA also informed the commission and attending public that the project has a website that provides more project information and an opportunity to comment:
<https://northernbusgarage.com/contact-us/>.

WMATA also stated that the comment sheet provides an address and email that can be used to provide written comments.

The attending public was asked if anyone had questions.

One community member stated that the retail component of the project was very important and inquired what the square footage for the retail space will be. WMATA stated that square footage was under discussion internally and would provide this information to the commission for

distribution. The community member stated that this is a very long and prominent building on an important street so retail would be great at this location.

Another community member asked if there was going to be a community room. WMATA stated that a final decision on this has not been made, and there was ongoing discussion. The community member stated that this would be useful and considered very important by the community.

A commissioner requested motion be adopted for a letter of support for the project to the HPRB. Motion seconded and passes unanimously.

**NORTHERN BUS GARAGE REPLACEMENT
PUBLIC COMMENT FORMS
ANC-4C Meeting, March 11, 2020**

Section 106 of the National Historic Preservation Act provides the public with the opportunity to comment on the project's effects on historic properties.

Please use this form to provide WMATA with any comments regarding the effects of the Northern Bus Garage Replacement project on historic properties.

Comments can also be provided in writing addressed to WMATA, 600 Fifth Street NW, Washington, DC 20001, Attn: Jeff Winstel, or by email to JFWinstel@wmata.com

My name is Kea Taylor and I am a ^{property owner} ~~resident~~ of the 1100 block of Buchanan St. NW, a couple of blocks from the Bus Barn.

My concerns about the Bus Barn are:

- 1) as a mother of an eight year old, I'm particularly concerned about the emissions of the buses being housed there.
- 2) the proximity of the area schools to the Bus Barn, ensuring that poor quality air is a problem for students at West Elementary, MacFarland and Roosevelt.
- 3) Seeing as the buses are housed elsewhere during renovation, why can't the buses remain there until the buses are updated with a more green alternative.

I AM REQUESTING THAT FOR MY HEALTH and THE HEALTH OF MY FAMILY AND STUDENTS AND RESIDENTS ^{APPROVAL OF} THAT THE WMATA BUS BARN REPLACEMENT BE DEPENDENT ON WMATA REDUCING THE NUMBER OF NON-ELECTRIC BUSES HOUSED THERE.

Kea Taylor
202.726.0287

THANK YOU!



HISTORIC PRESERVATION REVIEW BOARD STAFF REPORT AND RECOMMENDATION

Landmark/District: **Decatur Street Car Barn/Northern Bus Garage** (X) Agenda
Address: **4701 14th Street, NW** () Consent Calendar
Meeting Date: **May 28, 2020** (X) New Construction
H.P.A. Numbers: **20-176** (X) Alteration
(X) Demolition

The Washington Metropolitan Area Transit Authority (WMATA), Beyer Blinder Belle Architects and Wendel Architects seek conceptual design review for an extensive renovation of the historic Decatur Street Car Barn and its substantial additions. The goal of the project, which includes rehabilitation, demolition and new construction, is to modify the facility so it meets current bus garage standards.

Decatur Street Car Barn

The Decatur Street Car Barn was designed in the Italian Renaissance style by the local architectural firm of Wood, Donn and Deming, and constructed for the Capital Traction Company in 1906-1907. The National Register nomination describes the building as "...a high style and sophisticated piece of architecture...deliberately designed to serve as a company landmark..." Its most prominent façade, which faces 14th Street, resembles a 16th century Italian villa and features a prominent tower, large arched streetcar openings, a long arcade of windows, and decorative stone detailing such as keystones, quoins and belt courses. The building was originally 537 feet by 208 feet and occupied approximately half of its site, but that changed significantly as the carbarn was converted for bus garage use over time.

Bus-related modifications began as early as 1926 when the lower level started being used for bus storage and an addition was constructed on the east side for similar purposes. By 1959, the entire building was converted to a bus garage. WMATA assumed ownership of the property upon its creation in 1967 and substantially expanded the building in 1989-1992 via construction of a large, one-story bus maintenance facility and storage area. This expansion replaced virtually the entire roof of the original building, destroyed a great deal of historic interior fabric, altered the original exterior, and enclosed Decatur Street to provide additional bus egress, thus effectively engulfing the historic car barn in new construction. Upon completion, the bus garage occupied its entire site. However, the historic building still retained sufficient integrity to be designated a DC landmark in 2012 and listed in the National Register of Historic Places in 2013.

Proposal

Substantial renovation is necessary to accommodate WMATA's expanding and modernizing bus fleet. Larger spaces are required to allow 40' and 60' articulated buses to circulate

through the facility; additional clearance is necessary for taller diesel buses and planned overhead charging equipment for electric buses; more service bays and storage areas are needed to meet future needs; and additional space is required to house updated air filtration equipment, solar panels and office space for WMATA employees. In order to meet these project goals, WMATA proposes to gut most of the existing building, reconfigure the interior, and construct new levels above and below.

Evaluation

The proposed extensive modifications will destroy practically all remaining historic interior fabric, the original eastern wall, and the majority of the car barn's north and south elevations, thus resulting in substantial demolition that is inconsistent with the purposes of the DC Historic Landmark and Historic District Protection Act (Act). To offset this loss, the 14th Street elevation will be largely restored, and portions of the north and south façades will be retained and revealed to express the car barn's historic configuration.

Restoration of the primary 14th Street elevation will include in-kind replacement of slate roofs, substitution of 1980s windows with historically accurate replacements, removal of brick infill, demolition of a non-historic stair tower, and a variety of standard preservation treatments such as repointing, crack repair and cleaning of the brick facade. The large arched openings that originally provided ingress and egress for streetcars will be glazed with new storefront entries to facilitate adaptive use of former administrative areas for community retail. One of the historic arcade windows will be also be converted to a door to provide additional retail ingress/egress.

On the southern end, new construction will be set back to expose the distinctive rounded corner and two bays of the former streetcar barn as well as the original smokestack that is located just beyond. These features will provide historic interest and offer a sense of the building's original form, especially when viewed from the intersection of 14th and Buchanan Streets. The design of the newly constructed office wing nearer to the intersection has been made compatible with the historic building by echoing the horizontal belt courses and rhythm of its windows, and by using similarly scaled brick that is similar in color to the stone details of the streetcar barn.

To the north, the new stair tower required to provide access to all existing and proposed levels of the facility has been designed as a simple glazed structure that maximizes views to the remaining portions of the historic north façade while the 1980s historicist Decatur Street enclosure has been redesigned as a simple contemporary structure that is clearly distinguishable as new construction.

The newly constructed upper levels, including the anticipated solar arrays, will be sufficiently set back to allow the Decatur Street Car barn to read like a historic building rather than a mere façade. These new levels will also be positioned far enough to the east to be minimally visible from 14th Street.

Even though the remaining elevations of the bus garage do not adjoin any historic fabric, are not visible from historic portions of the building, and are not located within a historic district,

their relationship with the surrounding community could be improved. As the landmark's 14th Street elevation illustrates, it is possible for large-scale industrial buildings to compatibly co-exist with much smaller residential buildings if they have a commensurate scale, materials and detailing. The Historic Preservation Office (HPO) encourages the design team to revise the elevations proposed for Iowa and Arkansas Avenues and for Buchanan Street so that they reflect the smaller residential scale and detailing that are characteristic of the surrounding neighborhood.

Recommendation

HPO recommends that the Board:

- 1. Acknowledge that extensive renovations are necessary to meet project goals;*
- 2. Find that those aspects of the proposed concept relating to restoration of the 14th elevation and preservation of portions of the northern and southern elevations are appropriate for the historic Decatur Street Car barn;*
- 3. Find the proposed demolition of remaining historic fabric inconsistent with the purposes of the DC Historic Landmark and Historic District Protection Act, and recommend that the case proceed to the Mayor's Agent for review; and*
- 4. If the Mayor's Agent determines that the project is found to constitute a project of special merit and/or consistent with the Act, request that the Mayor's Agent direct the applicants to return to HPO for further design review to ensure final plans include an appropriate scope of preservation and restoration work to offset the loss of historic fabric.*

Staff Contact: Andrew Lewis

Meeting notes

J. Winstel (draft July 7, 2020)

May 28, 2020 The Historic Preservation Review Board convened a public meeting via WebEx. Board members present for the meeting were: Marnique Heath, Chair; Andrew Aurbach, Outerbridge Horsey, Sandra Jowers-Barber, Gretchen Pfaehler. Absent: Thomas Brokaw, Linda Greene.

Item 2. Decatur Streetcar Barn

HPA 20-176

Concept review for new construction and rehabilitation

Andrew Lewis (DC SHPO)

Staff reports that the level of demolition is inconsistent with the building's landmark status and robust restoration of 14th Street façade is meant to offset this. Concerns include the new construction.

Mr. Lewis also notes that public notification of the hearing is considered a public comment opportunity under Section 106 consultation with the Federal Transit Authority and the Washington Area Metropolitan Transit Authority (WMATA) for this project

Diane Levy (WMATA) opened the presentation noting that this is considered an important quarterly project for WMATA and WMATA has included a retail strategy for the front of the building, developed through several regular meetings with area stakeholders.

Andrew Lewis (DC SHPO) had no questions about the retail strategy and noted that the corner of 14th Street and Buchanan Avenue is very prominent and questioned if it blends into the residential character of the area.

Mr. Lewis suggests massing could be changed to be more in scale with the neighborhood. The south end of the building was discussed, and it was noted that the design pulls the new construction back so the original building curve could be retained along with character of the smoke stake. Does the board feel this needs further refinement? Staff report recommends further refinement of the Arkansas and Buchanan elevations. Suggest redesign breakdown the scale – large voids need to be more compatible with smaller residential buildings. Vegetative panels are new – HP staff was unaware of these.

Outerbridge Horsey (HPRB member) stated that the design seems to be on the right path and asked what is the big opening in bottom of façade?

Sean B (STV Inc.) responded this is a drop off exterior fueling area connecting to the fuel tank.

Outerbridge Horsey (HPRB) asked what is above that?

Sean B (STV Inc.) identified the area as an outdoor employee patio.

Outerbridge Horsey (HPRB) asked if the SE corner is glazing?

Sean B (STV Inc.) confirmed that it is glazing.

Outerbridge Horsey (HPRB) remarked that as Andrew (Lewis) said whatever the designers can do to break down the scale would be helpful and they should work with the HP staff.

Outerbridge also asked about the extended canopy.

Sean B (STV Inc.) stated that the extended canopy covers the main entrance

Outerbridge Horsey (HPRB) asked if there is an opportunity to reduce this canopy?

Marnique Heath (HPRB Chair) commented on the materials palette, specifically the southeast side panels, asking for clarification of where panels rest and the thinking behind the planted panels.

Sean B (STV Inc.) stated that these are tactical panels and are also used in the concrete patio area along Buchanan.

Marnique Heath (HPRB Chair) asked if he was referring to the large balcony.

Sean B (STV Inc.) referencing slide 50, stated that wall panels include live materials that break down the scale and provides different textures and colors, adding that the functional needs of the facility provide little room for push & pull of the design. The greenery will help mitigate dust in the area and will always be green and vibrant.

Marnique Heath (HPRB Chair) asked if there were going to be trees along the sidewalk.

Sean B (STV Inc.) stated he was not sure.

Phil Sheridan (STV Inc.) stated that there are some significant old growth trees in the area particularly along Buchanan and Arkansas avenues. The trees are not protected but will be replaced with need.

Marnique Heath (HPRB) stated that HPRB had received a letter of approval from ANC 4C and one person has registered to testify.

Mr. Upgdah identified himself as the registrant and stated that he represented two collaborative groups. He stated he owned properties on Blocks 46 and 47, and represented the 14th Street Uptown Business Association, the 16th Street Heights Neighborhood, and the Northern Bus barn Neighbors. He is also a registered consulting party for Section 106.

Mr. Upgdah stated that the overall design looks like an Industrial Prison complex not a transportation facility. Commercial façade design is meant to blend into the community and early 20th century architecture. The arch window openings should extend to street and were to be converted to working doorways and not be hidden behind a glass alley. The community needs to live with this building for the next 100 years. Arkansas and Iowa sides are not shown in the renderings, but these streets have 2 blocks of residential property. Slide 56 has a view to the south that should include the large Orthodox church, which accommodates upwards of 4,000 people on a regular basis. The plans do not blend in with the neighborhood.

Marnique Heath (HPRB) asked if the applicant wanted to address the building scale in regard to the residential community.

WMATA had no response at this time

Marnique Heath (HPRB) asked if the HPRB had further questions.

Dr. ? (HPRB member) thanked Mr. Upgdah for his comments and wondered about the scale and massing of the businesses on other side of 14th Street NW, adding that the prison comparison is not completely out of bounds in his opinion. He added that the building occupies the corner of Buchanan and 14th Street in an overpowering way.

Sean B (STV Inc.) stated he disagrees with the prison analogy. Streetsense, the retail planning consultant, stated that the glass view of street would break down the banding from the historic building and the highest point of the site slopes down dramatically, adding that the car parking on the upper level is screened from view, and actually is in scale with the existing building because of the 8'-9' drop. He added that the architects didn't want the bus entry to compete with the historic façade and the canopy banding extenuates the entrance and has been pulled back significantly. The street elevation is in line with the building.

Phil Sheridan (STV Inc.) stated that regarding comments about the community space amenity, addressing Mr. Upgdah, the SHPO did not want to add more on the 14th Street façade.

Andrew Lewis (SHPO) stated that they are trying to engage community and integrate the historic building. The project is retaining arch windows – a very long band of arch windows – does relate to the community but, the SHPO does not want to make significant changes to the street elevation.

Marnique Heath (HPRB) asked if there were any other questions and if the board wanted to deliberate?

Outerbridge Horsey (HPRB) stated he supported the staff report and denial of extensive demolition and referred the case to Mayor's Agent.

Andrew Lewis (SHPO) Stated Mr. Horsey's statement is consistent with the Act (D.C. Law 2-144, D.C. Code §6-1101 et seq.).

Outerbridge Horsey (HPRB) expressed concern about the west elevation and community room being 9' above the sidewalk, which doesn't seem very inviting. A greater concern he identified as the east elevation, which goes on forever, and he doesn't understand or support the green panels. He would like the neighbors to be more involved in the discussion.

Andrew Lewis (SHPO) pointed out the staff report notes the need to renovate, modernize, and upgrade. He cited as an example the Cleveland Park Fire Station and added the project overall is in scale and support the project's ambition. The materials and relation to the street need to be further explored. He stated that the case should be sent to the Mayor's Agent and move forward with further work with preservation office staff and neighbors.

Dr. ? (HPRB) stated his support of the staff report recommendation to forward project to the Mayor's Agent.

Marnique Heath (HPRB Chair) asked if there was any argument opposing the staff report. She stated she agrees with comments and feels it needs more comment. The scale of the building needs to recede back and be consistent with residential area and be more responsive to the surroundings. Plant panels are too busy and do not break down the scale, doesn't make building more pedestrian, and does not achieve any screening or softening of the sides. She stated her support for staff report and asked applicant to come back to the board and respond to board comments and community comments.

Marnique Heath (HPRB Chair) moved that applicant revise the plans and come back for further review. Motion passes unanimously.

Official record of meeting

<https://planning.dc.gov/sites/default/files/dc/sites/op/publication/attachments/HPRB%20ACTIONS%2005%202015.pdf>

GOVERNMENT OF THE DISTRICT OF COLUMBIA

HISTORIC PRESERVATION REVIEW BOARD 1100 4th Street SW, Suite E650, Washington, D.C. 20024 (202) 442-8800 fax (202) 442-7638

HPRB ACTIONS

May 28 and June 4, 2020 May 28, 2020

The Historic Preservation Review Board convened a public meeting on May 28 via WebEx. Present for the meeting were: Marnique Heath, Chair; Andrew Aurbach, Outerbridge Horsey, Sandra Jowers-Barber, Gretchen Pfaehler. Absent: Thomas Brokaw, Linda Greene.

AGENDA

HISTORIC LANDMARK

Decatur Street Car Barn/WMATA Northern Bus Garage, 4615 14th Street, NW, HPA 20-176, concept/new construction/rehabilitation.

The Board unanimously approved the staff report conditioned upon revisions to make the Arkansas and Iowa Avenues and the Buchanan Street façades more compatible with the surrounding residential

context by breaking down the scale of the elevations, refining the materials palette, redesigning the vegetative panels in a more cohesive fashion, and ensuring that trees are incorporated on site. The Board also recommended that the new construction at the southwest corner of the site be revised to be more welcoming and compatible with the scale and character of the adjacent commercial development, especially the canopy and entry stair. Finally, the Board requested that the local community be involved in revising the designs for the new construction and that the updated plans be resubmitted to the Board for additional review. Vote:4-0 (Pfaehler recused)

Appendix D:

Virtual Public Engagement Meetings Flyer



VIRTUAL COMMUNITY ENGAGEMENT MEETINGS

MEETING #1 Tuesday, October 13 Project & Design Update 	MEETING #2 Monday, November 2 Draft Design Conversation 
MEETING #3 Tuesday, November 10 Environmental Conversation 	MEETING #4 Tuesday, November 17 Final Design Presentation 

All meetings begin at 6 pm. For more information, visit wmata.com/NorthernBusGarage.



Appendix E:

Section 106 Consulting Parties Meeting, July 29, 2021
Meeting Minutes and Power Point Presentation

Northern Bus Garage
Section 106 Consulting Parties
“Teams” Virtual Meeting
July 29, 2021
10:30 – 11:30 am

Participants:

Jeff Winstel, WMATA
Jim Ashe, WMATA
Diane Levy, WMATA
David Wehe, WMATA
Dan Koenig, FTA
Shauna Haas, FTA
Andrew Lewis, DC SHPO
Maria Barry, ANC 4C02
Ulysses Campbell, ANC 4C03
Gabriela Mossi, Uptown Main Street (UMS)
Taalib-Din Uqdah, Northern Bus Barn Neighbors (NBN)

Invited:

Sixteenth Street Neighborhood Association

Meeting started with a PowerPoint presentation by Jeff Winstel (WMATA), providing overview of Section 106 process, steps that have been completed, and remaining steps, emphasizing need for consulting parties input on mitigation of adverse effect.

The PowerPoint presentation is attached at end of minutes

Dan Koenig (FTA) emphasized the need for discussion to be focused on measure of mitigation for the adverse effect under Section 106 of the National Historic Preservation Act to the Northern Bus Garage building.

Andrew Lewis (DC SHPO) asked about interpretive signage being included as mitigation, along with the trolley tracks placed in the sidewalk. He also stated that he would prefer actual tracks in the pavement rather than pavers or sidewalk art depicting their alignment and asked what community members would prefer. Mr. Lewis acknowledged the Historic Fabric Analysis, which will be useful to assess minimization efforts. Mr. Lewis also stated an interest for getting feedback from the Consulting Parties on the proposed mitigation measures.

Maria Barry (ANC 4C02) stated a preference for actual streetcar rails.

David Wehe (WMATA) noted that the sidewalk may be used for outdoor eating and the tracks could be a safety hazard; however, the design of them was noted as needing to be investigated to ensure ADA compliance.

Dan Koenig (FTA) stated that the tracks can be ADA compliant and be installed flush with the pavement so they would not be a tripping hazard.

Maria Barry (ANC 4C02) added that they would be flush, unlike the historic tracks in Georgetown, which are a safety hazard.

Andrew Lewis (DC SHPO) stated pavers marking location of the trolley tracks would not read as tracks.

Taalib-Din Uqdah (NBN) asked for clarification regarding the red line on aerial photograph of the neighborhood on slide 6, and if the entire building is considered historic.

Jeff Winstel (WMATA) stated that the entire building is considered historic and the red line is the Area of Potential Effect, or simply put, the area from which the project can be seen.

Taalib-Din Uqdah (NBN) Stated that the entire building is not historic, noting that the section of the building that was constructed by eliminating Decatur Street is not historic and the parking on the south end of the building is not historic or dates from historic period identified as 1906 to 1959.

Andrew Lewis (DC SHPO) explained that the entire building has been designated a DC Historic landmark and listed in the National Register of Historic Places.

Taalib-Din Uqdah (NBN) stated that what the red line does not show is the racial history associated with the building and neighborhood, along with the role transportation played in the development of the neighborhood and city.

Taalib-Din Uqdah, (NBN) added that perhaps the interpretation could include something creative such as laser lights that would highlight the tracks or showing a trolley car entering the building.

Jeff Winstel (WMATA) noted that the racial history is associated with the building and neighborhood and could be incorporated into the interpretation.

Taalib-Din Uqdah (NBN) referenced interpretive signage located along Missouri Avenue associated with the Walmart that had a very large photo but the narrative is too small to read, stating that people shouldn't have to strain to read an exhibit about the Northern Bus Garage.

Andrew Lewis (DC SHPO) added that any interpretive media be of a scale and scope to other interpretive signage, adding that the community room could also contain some historic photographs of the facility and some interpretive signage, or a website could be developed that focuses on the building and neighborhood history. He also noted that the consulting parties will have opportunities to review and comment on the interpretive media.

Taalib-Din Uqdah (NBN) stated he appreciates knowing that and recalled that in 2006 WMATA was celebrating 100 years of transit history, but black people did not share in this celebration and as someone with a personal connection to the building, having worked there, he has something to add to the consultation regarding interpretation.

Jeff Winstel (WMATA) paused to welcome Ulysses Campbell ANC 4C03 to the meeting, and then noted that Mr. Uqdah is correct regarding the building's association with black history as this facility was one of the last to racially integrate during the Civil Rights era and that is a large part of the building's story.

Taalib-Din Uqdah (NBN) stated that he recalled someone telling the community that there would be 20,000 square feet of commercial space in the front of the building. This space could incorporate signage that relates to the history of the building. He also questioned how commercial signage and interpretive signage would be regulated or combined along the façade.

Andrew Lewis (DC SHPO) stated that signage would be subject to Historic Preservation Review Board review because the building is a DC Historic Landmark, and this is part of the city zoning ordinance. He further noted that it may be possible to briefly reference this in the Memorandum of Agreement preamble, but typically the Advisory Council on Historic Preservation, the federal oversight agency for Section 106, discourages including local zoning as a part of agreement documents.

Dan Koenig (FTA) stated that we have had a good exchange of mitigation ideas from the consulting parties. Two things that stand out are the interest in interpretive signage and installation of tracks in the sidewalk.

Shauna Haas (FTA) asked if other consulting parties had comments or preferences for the mitigation, specifically asking for comments from Uptown Main Street and the ANCs.

Gabriela Mossi (UMS) noted that the city has very strict guidelines regarding signage adding that appropriate signage in a neighborhood is key to defining the character of the neighborhood. She stated that her board and commercial tenants are very interested in the project and strongly supports following ADA requirements, highlighting the community's history -- the good and the bad -- adding that folks make an effort to include and value all points of view.

Dan Koenig (FTA) asked if WMATA has experience developing interpretive signage and adding the Andrew Lewis and the DC SHPO office could provide assistance with placement and size.

Andrew Lewis (DC SHPO) stated he intends to work with his colleagues and identify a larger context for interpretation and will look at various options. The MOA should provide initial input regarding one or two approaches to mitigation, noting that interpretive materials could be brought into the building and some businesses may want to use local history in their spaces as well.

Taalib-Din Uqdah (NBN) agreed with Andrew Lewis and noted that currently there is no signage that indicates the building was a bus barn. This is a 2-block square where you don't know it's a bus barn, but we should not have too many signs on the property.

Andrew Lewis (DC SHPO) asked about WMATA's Art in Transit program noting that the ANC stated interest in some art on the southeast corner of the building and requested it relate to the building's historic function.

Taalib-Din Uqdah (NBN) noted the community has people with photographs that can be incorporated into exhibits, and we need to reach out to older residents and their children to see if they have any photographs.

Ulysses Campbell (ANC 4C03) asked about the timeline for the Memorandum of Agreement.

Andrew Lewis (DC SHPO) stated there was no set timeline except the document must be completed and signed before construction starts. Given the type of mitigation being proposed the finalization of the document shouldn't take much time, perhaps 2 to 3 months.

Taalib-Din Uqdah (NBN) asked if the building is being demolished can we get the construction company to allow community members to put aside [salvage] some building materials as souvenirs to frame for new businesses and houses?

Jim Ashe (WMATA) remarked that's a good suggestion and that WMATA will look into it.

Dan Koenig (FTA) stated we want to be respectful of everyone's time and WMATA will put together minutes for this meeting. We have discussed using interpretive signage and installing trolley tracks for mitigation, along with architectural salvage. Andy Lewis from the DC SHPO gave us a good idea of the time frame for getting the Memorandum of Agreement done. Are there any additional comments or closing comments?

Andrew Lewis (DC SHPO) requested that the restoration scope of work for the remaining portion of the historic building be detailed and added as Appendix A to the Memorandum of Agreement.

Gabriela Mossi (UMS) stated she will pass on all this information to her board members, noting they are very interested in this project.

Ulysses Campbell (ANC 4C03) remarked that in terms of the adverse effect, during construction the residents and businesses have to be protected from any damage caused by the construction, and they want to know that the construction will be performed in a thoughtful, careful, and constructive way.

Dan Koenig (FTA) stated the meeting was just focused on mitigation as it relates to the historic building and Section 106 but concerns about community safety during construction are helpful comments that will continue to be addressed through other forums.

Taalib-Din Uqdah (NBN) thanked us for hearing the community.

Dan Koenig (FTA) thanked everyone for their feedback and noted that comments were very helpful.

The meeting concluded around 11:30 am.

Northern Bus Garage Project Update

Section 106 Consulting Parties Meeting

July 29, 2021



Northern Bus Garage Reconstruction

Agenda

- Welcome and Consulting Party Introductions
- Section 106 Overview
- Role of Federal Agency FTA
- Project Status Updates
- Completed Section 106 Consultation Steps
- Remaining Step for Section 106 Consultation
 - Minimization
 - Mitigation
- Memorandum of Agreement and Section 106 Conclusion
- Questions



"Large Structure of Capital Traction Railway Company, Nearing Completion" 1906 Washington Times

Section 106 Overview

- Code of Federal Regulations: 36 CFR Part 800
- Role of Federal Agency in Section 106 Process
- Federal Undertaking is Project with Federal Funding, Permitting, or Licensing
- Determine Federal Undertaking's Effect on Historic Properties
- If Undertaking's Effects are Adverse,...
- Mitigate or Minimize Effects to Historic Properties

3

Consulting Parties

- Northern Busbarn Neighbors
- Uptown Main Street
- Sixteenth Street Neighborhood Association
- ANC 4C02
- ANC 4C03
- Federal Transit Administration
- Washington Metropolitan Area Transit Authority
- District of Columbia Historic Preservation Office



4

Project Status

- HPRB and Section 106 Consultation
 - April 19, 2019, Initial public outreach notification
 - March 11, 2020, ANC-4C meeting
 - May 28, 2020, HPRB meeting also Section 106 consultation
 - October 2020, and November 11, 2020, online survey
- Mayor's Agent approval of final design --PENDING
- DC HPRB approval of final design
- Consulting parties will be provided
 - Final design plans
 - Memorandum of Agreement
- Complete Section 106 process



1961 View of Trolley from Car Barn

5

Completed Steps of Section 106 Consultation

- Definition of Undertaking,
 - April 16, 2019
- Area of Potential Effect(s) APE
 - April 16, 2019
- Identified Historic Properties in APE
 - April 16, 2019
- Assessed Effect of Undertaking on Historic Properties in APE
 - DC SHPO, May 16, 2019
 - ACHP, July 18, 2019

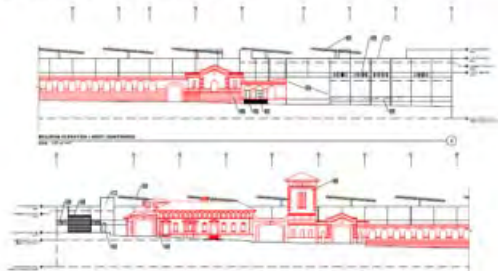


Red Border Area of Potential Effect

6

Some Alternative Designs Presented

4/16/19 Concept Design



3/26/20 Designs



10/20/20 Designs for survey



7

Remaining Steps for Section 106 Consultation

- Address adverse effect
 - Minimization
 - Design development
 - Mitigation
 - Documentation, Interpretation of Building's History
- Memorandum of Agreement
 - Document Minimization and Mitigation



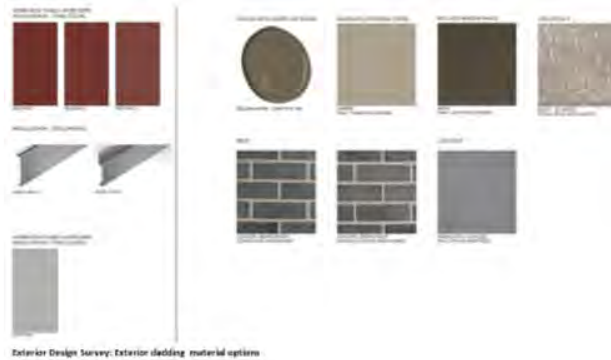
Preferred design by 81% of respondents to be used for basis of further design refinement

8

Minimization of Adverse Effect(s)

- Design Development

- Project scale reduced
- Large walls broken up in sections
- Exterior cladding material changed to palette compatible with historic building
- Reduction of size of building entrance southwest corner of 14th Street NW and Buchanan
- Recessed bus entry, south end on 14th Street NW
- Lower façade cornices and lightened color



9

Minimization of Adverse Effect(s)

- Design Development (continued)

- Replacing existing façade arch windows with historically appropriate windows
- Non-historic doors replaced with windows
- Restore northwest corner of original building, exposing historic arched windows
- Reconstruction of chimney at south end
- Brick and cast stone masonry cleaning and pointing

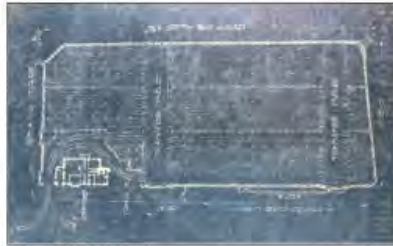


1980s Doors to be Restored to Windows

10

Mitigation of Adverse Effects

- Need Consulting Party Input
 - Historic Fabric Analysis (completed)
 - Architectural lighting of 14th Street NW historic façade (proposed)
 - Pavement design/art depicting or interpreting original location of trolley tracks (proposed)



Car Barn Track Layout



Historic Track Location in Front of Building



Julian Beres: pavement drawing Yorkshire Water
<https://www.birminghammail.com/2017/01/10/beres-pavement-art-100-years-on/>
<https://www.birminghammail.com/2017/01/10/beres-pavement-art-100-years-on/>
<https://www.birminghammail.com/2017/01/10/beres-pavement-art-100-years-on/>

11

Memorandum of Agreement (MOA)

- After Minimization and Mitigation identified
- Documents the terms and conditions to resolve the adverse effects of an undertaking upon historic properties
 - MOA Signed (executed) by FTA, DC SHPO and WMATA
 - MOA records
 - Consultations with consulting parties
 - Minimization and Mitigation
 - Identify responsible parties and responsibilities
- Opportunity for Consulting Party Discussion of Mitigation

12

Thank you!

Appendix F:
Northern Bus Garage Reconstruction
Memorandum of Agreement

**MEMORANDUM OF AGREEMENT
AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER
AND
THE WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT IN
WASHINGTON, DC**

WHEREAS, the Federal Transit Administration (FTA) plans to provide financial assistance to the Washington Metropolitan Area Transit Authority (WMATA) for the proposed renovation of the Northern Bus Garage, historically known as the Capital Traction Company Car Barn, which is listed on the National Register of Historic Places (NRHP; NR# 13000290, May 22, 2013) (Undertaking) and located at 4701 14th Street, NW; and

WHEREAS, the Northern Bus Garage Renovation Project (Project) consists of the stabilization, restoration, and preservation of the portions of the Northern Bus Garage along 14th Street, NW, including the administration offices and tower, and historic walls on the north and south ends of the building; the demolition of the remaining portions of the historic building and later, non-historic additions; and replacement of the demolished portions with a new building that will be connected to the preserved historic building; and

WHEREAS, FTA has consulted with the District of Columbia State Historic Preservation Officer (DC SHPO) regarding the Undertaking in accordance with 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS, FTA in consultation with the DC SHPO has determined the Undertaking's Area of Potential Effects (APE), as defined in 36 CFR § 800.16(d), as including the entirety of the Northern Bus Garage footprint, and approximately one block of residential or commercial structures along (clockwise starting north) Decatur Street NW, Iowa Avenue NW, Arkansas Avenue NW, Buchanan Street NW, and 14th Street NW, and viewsheds from the intersections of Crittenden Street NW and 15th Street NW facing east, Decatur Street NW, and 15th Street NW facing east, as depicted in Attachment 1; and

WHEREAS, FTA and DC SHPO have applied the criteria of adverse effect pursuant to 36 CFR § 800.5 and determined that the Undertaking will have an adverse effect on the Northern Bus Garage because it will result in the destruction of part of the historic building; and

WHEREAS, WMATA, as a recipient of Federal assistance for the Project, is a consulting party in the Section 106 process pursuant to 36 CFR § 800.2(c)(4) with a responsibility for implementing the terms of this Memorandum of Agreement (MOA) and is invited to sign this MOA as an invited signatory pursuant to 36 CFR § 800.6(c)(2); and

WHEREAS, FTA and DC SHPO invited Uptown Main Street, the Sixteenth Street Neighborhood Association, the Northern Busbarn Neighbors, DC Advisory Neighborhood

Commission (ANC) 4C02 and ANC 4C03 to be consulting parties pursuant to 36 CFR § 800.2(c)(5), and consulted with them regarding the effects of the Undertaking on historic properties; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), FTA has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation, and the ACHP declined to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii);

NOW, THEREFORE, FTA, the DC SHPO, and WMATA (henceforth referred to as the Signatories) agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties.

STIPULATIONS

FTA and WMATA shall ensure that the following measures are implemented.

I. IMPLEMENTATION OF DESIGN PLANS

WMATA will construct the Project according to the design plans included in Attachments 2, 3, and 4. These design plans were determined to be the preferred design through robust Section 106 consultation and public outreach to ensure the following items are met:

- A. New construction illustrated in Attachment 2 will be compatible with the historic Northern Bus Garage; will incorporate projecting and receding elements to decrease the monolithic nature of the new structure along Arkansas and Iowa avenues; and use cladding material and visual patterning to further “break down the scale” of the new building, especially near building entrances and garage doors.
- B. Restoration work will be informed by the *Identification of Historic Fabric Report* included in Attachment 3 and implemented in accordance with the plans and narrative scope of work included in Attachment 4 to ensure that historic fabric from the 1906 to 1959 NRHP Period of Significance will be preserved and the historic portions of the Northern Bus Garage will remain prominent features of the overall Northern Bus Complex. Restoration work includes, but is not limited to, preserving and repairing existing historic fabric, restoring elevation elements that have been replaced with inappropriate elements, replacing inappropriate 1980s windows with historically appropriate replacement windows, and preserving and restoring historic sections of the north and south walls and the original smokestack. As part of its on-going review for DC building permits, the DC SHPO may require minor revisions to the plans in Attachment 4.

II. INSTALLATION OF REPLICA STREETCAR TRACKS

To illustrate and highlight the Northern Bus Garage’s original function as a streetcar car barn, WMATA shall install replica streetcar tracks in the area where streetcars used to enter and/or exit from the building along 14th Street, NW, as shown in Attachment 5. If the District Department of

Transportation's (DDOT) Public Space Committee does not approve streetcar tracks extending through public space to 14th Street, NW, WMATA will provide information to document the Public Space Committee's decision, and may revise the plans in Attachment 5 to limit the streetcar tracks to WMATA-owned property. Regardless of their extent, the tracks shall be ADA compliant and avoid tripping hazards. The replica streetcar tracks will be installed as part of building construction project and will be fully installed within one week of issuance of the building occupancy permit.

III. INTERPRETIVE SIGNAGE EXHIBITS

- A. In consultation with the DC SHPO and consulting parties, WMATA shall develop and install one (1) to three (3) exterior interpretive signage exhibits and up to five (5) interior interpretive signage exhibits for the building's community room as described in Attachment 6. The exterior interpretive signage exhibits shall focus on the historical and architectural characteristics that qualify the Northern Bus Garage for listing in the NRHP and explain the replica streetcar tracks described in Stipulation II above. The interior community room exhibits may focus on broader historical themes that relate to the role the Northern Bus Garage played in the development of the surrounding neighborhood and community, including, but not limited to, topics such as African-American history, commercial development, and social history.
- B. In developing topics and materials for the interior interpretive signage exhibits, WMATA shall solicit initial input from consulting parties and DC SHPO. WMATA will reach out to additional groups or individuals who are knowledgeable about community history as appropriate in developing the content for the exhibits, as described in Attachment 6.
- C. WMATA, in consultation with DC SHPO and FTA, will determine which topics will be pursued further, based on input received through outreach described in Stipulation III.B. and Attachment 6, and decide how many exhibits will ultimately be installed.
- D. WMATA shall provide full color digital drafts of all exterior interpretive signage exhibits and interior interpretive signage exhibits to the consulting parties and DC SHPO for review and comment in accordance with Attachment 6.
- E. Once the content, design, and location are approved by DC SHPO in writing, WMATA shall prepare and install the signage in the approved locations within 30 days of issuance of the building occupancy permit.

IV. REVISIONS TO THE PROJECT

If WMATA refines the design of the Project in a manner that may result in additional or new effects on historic properties, WMATA will notify FTA and the DC SHPO of such changes. Before WMATA takes any Project action that may result in additional or new effects on historic properties, WMATA, FTA, and DC SHPO will consult to determine the appropriate course of action.

V. UNANTICIPATED DISCOVERIES

- A. Archaeological Resources and Human Remains

1. In the event that a previously unidentified archaeological resource and/or suspected human remains are discovered during ground disturbance activities, all construction work involving subsurface disturbance will be halted in the area of the resource and in the surrounding area where further subsurface remains can reasonably be expected to occur.
2. WMATA shall notify the DC SHPO's District Archaeologist in writing via email and by telephone immediately.
3. The DC SHPO's District Archaeologist shall conduct a site visit within two working days (48 hours), if possible.
4. DC SHPO will contact the Metropolitan Police Department (MPD) and the DC Office of the Chief Medical Examiner (OCME) if suspected human remains are present per OCME protocols under DC Statute DC ST S 5-1406.
5. WMATA, FTA, and DC SHPO will consult to determine whether the resource is eligible for listing in the NRHP, and if so, whether adverse effects can be avoided or minimized.
6. If the resource is determined NRHP-eligible and adverse effects cannot be avoided, WMATA will propose a Treatment Plan to mitigate adverse effects. Upon concurrence by DC SHPO and FTA on the effects and Treatment Plan, WMATA will carry out the Treatment Plan.
7. Documentation, evaluation, and execution of the Treatment Plan will be undertaken by archaeology professionals meeting the requirements of Stipulation VI, comply with District guidelines for archaeology, and be conducted according to an archaeological work plan approved by the DC SHPO.

B. Architectural and Historic Built Environment Resources

1. If, in the course of implementing the Project, unforeseen and potentially adverse effects occur to above-ground historic properties within the APE, WMATA shall immediately halt all construction work within fifty (50) feet of the unforeseen effect and take all reasonable measures to avoid or minimize further unforeseen effects. WMATA shall notify FTA and DC SHPO of the issue as soon as practicable, but no later than 3 days following the unforeseen effect.
2. WMATA shall ensure that an architectural historian or historic architect meeting the requirements of Stipulation VI investigates the work site and the historic property within seven (7) days. Following the investigation, WMATA shall forward to FTA and DC SHPO an Assessment of Effects Report to the historic property and proposed Treatment Plan to resolve any adverse effects on historic properties. Upon agreement with the Effects Report and Treatment Plan by DC SHPO and FTA, WMATA will carry out the Treatment Plan.

3. At the conclusion of this consultation, WMATA will provide all parties that participated in the discovery consultation a written summary of the consultation and its resolution. This summary may be transmitted to the participants via e-mail.

VI. PROFESSIONAL QUALIFICATIONS

WMATA shall ensure that all historic preservation and archaeological work performed by WMATA or on its behalf pursuant to this MOA shall be accomplished by or under the direct supervision of a person or persons who meet(s) or exceed(s) the pertinent qualifications in the Secretary of the Interior's Professional Qualification Standards (48 FR 44738-9) in those areas in which the qualifications are applicable for the specific work performed.

VII. MONITORING AND REPORTING

Each year following the execution of this MOA until it expires, is fulfilled, or is terminated, WMATA shall provide the signatories a summary report detailing work undertaken pursuant to the MOA. Such report shall include a summary and update on work being carried out in accordance with relevant stipulations, any scheduling changes proposed, any problems encountered, any disputes or objections received, and related topics. WMATA shall provide the annual report to the Signatories on or before the date of execution of the MOA.

VIII. DISPUTE RESOLUTION

Should any Signatory object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FTA shall notify the other Signatories and consult with such party to resolve the objection. If FTA determines that such objection cannot be resolved, FTA will:

- A. Forward all documentation relevant to the dispute, including FTA's proposed resolution, to the ACHP. The ACHP shall provide FTA with its advice on the resolution of the objection within thirty (30) calendar days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FTA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and signatories and provide them with a copy of this written response. FTA will then proceed accordingly.
- B. If the ACHP does not provide its advice regarding the dispute within the 30-day time period, FTA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a decision, FTA shall prepare a written response that takes into account any timely comments regarding the dispute from the Signatories and provide the Signatories and the ACHP with a copy of such written response.
- C. FTA and WMATA's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remains unchanged.

IX. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all Signatories. The amendment will be effective on the date a copy signed by all Signatories parties is filed with the ACHP. Revisions to any Appendix to this MOA determined to be non-substantive by the Signatories will not require an amendment to the MOA but must be agreed to in writing by the Signatories.

X. TERMINATION

If any Signatory determines that the terms of this MOA will not or cannot be carried out, that party shall immediately consult with the other Signatories to attempt to develop an amendment per Stipulation IX, above. If within 30 days, or another timeframe agreed to by all Signatories, agreement on an amendment cannot be reached, any Signatory may terminate the MOA upon written notification to other Signatories.

If the MOA is terminated, and prior to work continuing on the Undertaking, FTA must either: (a) execute another MOA pursuant to 36 CFR § 800.6; or (b) request, take into account, and respond to the comments of the ACHP pursuant to 36 CFR § 800.7. FTA shall notify the signatories as to the course of action it will pursue.

XI. GENERAL PROVISIONS

A. Counterparts; Electronic Signature

This MOA may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This MOA may be signed electronically.

B. Distribution of MOA

Within one (1) week of the last signature on this MOA, FTA shall provide each Signatory and consulting party with one high quality, legible, full color, electronic copy of the fully-executed MOA and all of its attachments integrated into a single document. Internet links will not be used as a means to provide copies of attachments since links to web-based information often change. If the electronic copy is too large to send by e-mail, WMATA shall provide a copy of this MOA as described above, on a flash drive, compact disc, or other suitable, electronic means.

XII. DURATION

This MOA will expire if its terms are not carried out within ten (10) years from the date of execution, or when FTA determines that all stipulations have been satisfactorily fulfilled. WMATA shall notify FTA when the project is completed and there are no further opportunities for unanticipated discoveries as described in Stipulation V above. Prior to expiration, FTA may consult with the Signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation IX.

Execution of this MOA and implementation of its terms evidences that FTA has taken into account the effects of the Undertaking on historic properties and afforded the ACHP an opportunity to comment.

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT
WASHINGTON, DC**

SIGNATORY

FEDERAL TRANSIT ADMINISTRATION

By: _____

Date: _____

Terry Garcia-Crews
Regional Administrator, Region III

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT
WASHINGTON, DC**

SIGNATORY

DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER

By: _____

Date: _____

David Maloney
District of Columbia State Historic Preservation Officer

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT
WASHINGTON, DC**

INVITED SIGNATORY

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

By: _____

Date: _____

Andrew B. Off
Executive Vice President, Capital Project Delivery

LIST OF ATTACHMENTS

Attachment 1: Area of Potential Effects

Attachment 2: Building Elevations and Perspective Views

Attachment 3: WMATA Northern Bus Garage: Identification of Historic Fabric Report

Attachment 4: Restoration Narrative Scope of Work, Elevations and Plans

Attachment 5: Plans for Replica Streetcar Track Installation

Attachment 6: Interpretive Signage Exhibits

ATTACHMENT 1
AREA OF POTENTIAL EFFECTS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT



Area of Potential Effects —————

ATTACHMENT 2
BUILDING ELEVATIONS AND PERSPECTIVE VIEWS

**NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT**

ATTACHMENT 3
IDENTIFICATION OF HISTORIC FABRIC REPORT
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT

ATTACHMENT 4
RESTORATION NARRATIVE SCOPE OF WORK, ELEVATIONS AND PLANS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT

Restoration Narrative Scope of Work

The restoration scope for the WMATA Northern Bus Garage will include the restoration of the 14th Street elevation; a 36'8" portion of the original south elevation, including the chimney; and a 28' 7" portion of the original north elevation. The restoration will include the removal of non-original alterations, including the c. 1987-1992 Administration Building stair tower, the 1970s angled brick wall in the original streetcar entry, two non-original pedestrian doors in the 14th Street elevation (northern door c. 1970, southern door c. 1987-1992), and the removal of non-original brick window infills. The elevations will be cleaned, repaired, and repointed where needed. The 14th Street NW elevation will be supported by temporary supports during excavation and construction of the new facility. The south portion of the elevation that will be retained will be catalogued, dismantled, and reassembled prior to restoration as its foundations are in conflict with the new bus drive aisle.

The elevation restoration includes the installation of new aluminum wrapped wood core IGU windows and exterior Administration Building doors to match the historic windows and doors as closely as is possible. Historic images, such as photographs and available plans, were used as source material for the design of new doors and windows. The historic symmetrical design of the doors will be retained for the new doors, in keeping with the historic character of the building. The two extant original wood windows on the 14th Street NW elevation will be restored and reinstalled in their existing locations. A historic round wood window currently located at the east elevation will be salvaged, restored, and installed in an opening in the 14th Street NW elevation where this same type of window was originally located, but the window was removed and bricked in at some point.

A survey completed in February of 2020 determined that overall, the brick masonry is in good condition. There are limited areas of step cracking, bio growth, staining, incompatible repointing, and previous alterations. All historic fabric will be cleaned in a manner consistent with the Secretary of the Interior's Guidelines for Rehabilitation: cleaning soiled masonry surfaces with the gentlest method possible. Non-original brick or mortar will be removed. Non-original and deteriorated mortar will be removed and replaced with an approved matching mortar as noted above. Non-original brick will be replaced with historic brick salvaged from the site and mortar analysis will be undertaken to determine an acceptable mortar for repairs. In order to retain as much historic masonry in situ as possible, small brick cracks or mechanical damage will be repaired rather than replaced. These repairs are ONLY for minor cracks and holes from anchors drilled in the face of the brick will be repaired with a patching mortar in compliance with the Secretary of the Interior's Guidelines for Rehabilitation.

The limestone and granite portions of the elevation are in a more distressed condition than the brick and will require more repair and, in select locations all noted on the drawings, replacement

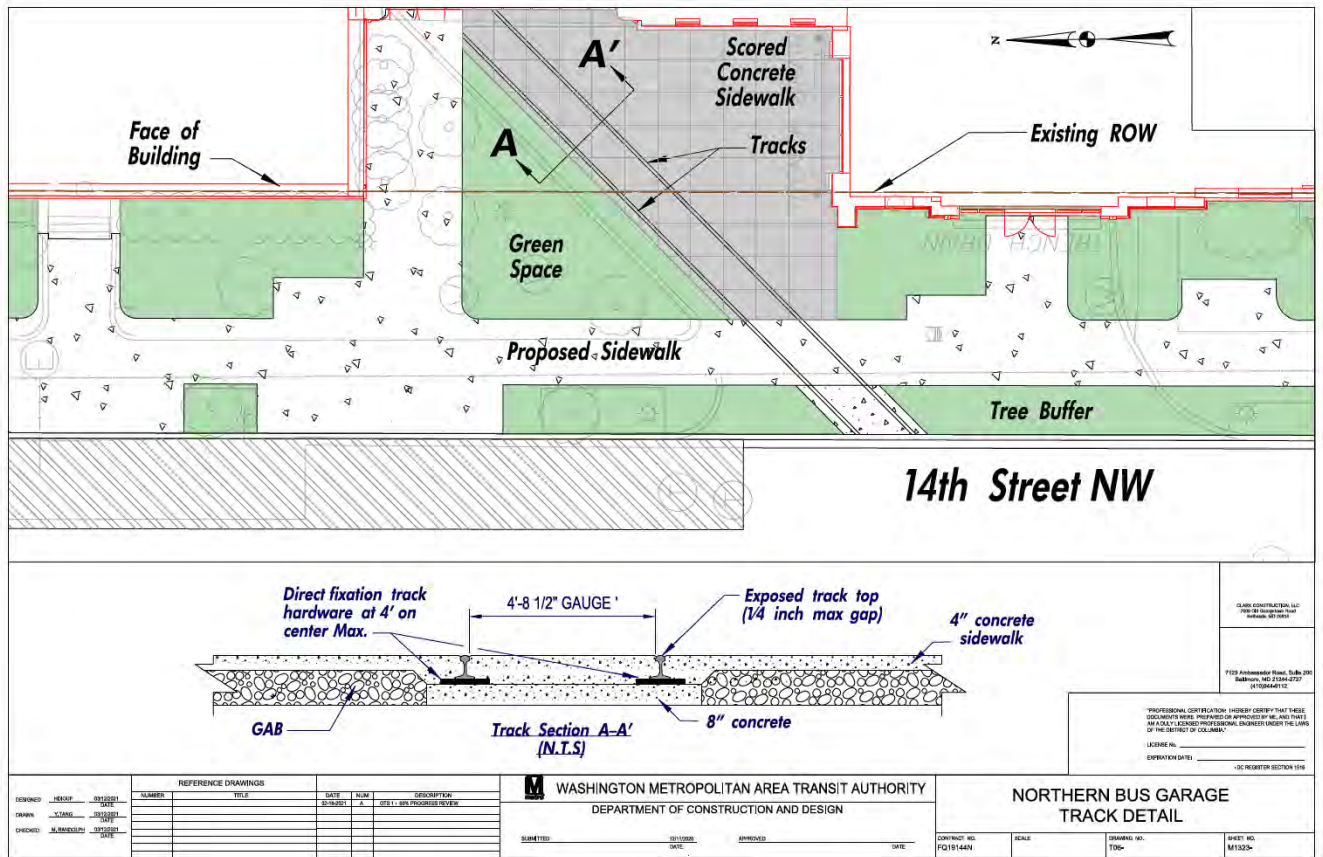
to match historic. Small areas of stone damage will be repaired with custom matched mortar repairs or dutchman. Only in a few limited instances will replacement to match historic be required. All limestone and granite will be cleaned in a manner consistent with the Secretary of the Interior's Guidelines for Rehabilitation: cleaning soiled masonry surfaces with the gentlest method possible. As detailed in contract documents, the non-historic parapet flashing currently installed in some locations on 14th Street will be removed to expose the historic limestone beneath. Small areas of stone damage will be repaired with custom matched mortar repairs or dutchman. Only in a few limited instances will replacement to match historic be required.

The pebble dash stucco at the cornice of the Administration Building and Tower will be cleaned in a manner consistent with the Secretary of the Interior's Guidelines for Rehabilitation: cleaning soiled masonry surfaces with the gentlest method possible. Repairs are identified in the contract documents where cracking and de-laminating has occurred. The painted wood trim in the cornice will be cleaned, repaired, and repainted.

The restoration will include the replacement of the non-original Administration Building and Tower slate and metal roofs with historically appropriate slate and metal roofing. The roofs and underlayment require full replacement based on poor condition. New gutters and downspouts to match the historic will be installed.

Restoration Elevations and Plans on following pages:

ATTACHMENT 5 **REPLICA STREETCAR TRACK INSTALLATION** **NORTHERN BUS GARAGE RENOVATION PROJECT** **MEMORANDUM OF AGREEMENT**



ATTACHMENT 6
INTERPRETIVE SIGNAGE EXHIBITS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT

To help mitigate the adverse effects associated with the renovation of the Northern Bus Garage, WMATA will develop and install interpretive signage exhibits as described below. This Scope of Work is organized into four sections: Background, Goals of the Exhibits, Tasks, and Deliverables.

Background:

WMATA plans to renovate the Northern Bus Garage, which is listed in the National Register of Historic Places (NRHP; NR# 13000290 listed April 5, 2013) and as a DC Historic Landmark (September 27, 2012) as the Capital Traction Company Decatur Street Car Barn. The renovation effort will remove portions of the historic fabric of the car barn, which will result in an adverse effect.

As part of mitigation efforts for the adverse effect, WMATA will be providing interpretive signage exhibits as explained below. Exterior signage shall focus on the historical and architectural characteristics (the building's history, architecture, and use) that qualify the building for listing in the NRHP. Interior exhibits will provide additional details about the Northern Bus Garage and related topics such as the role the garage played in the development of the surrounding neighborhood and community.

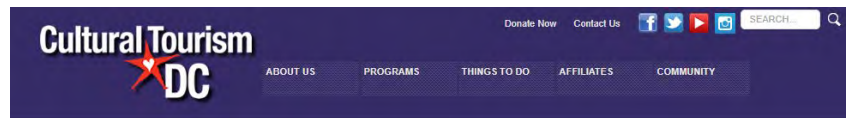
Goal of the Exhibits:

These interpretive signage exhibits will explain the historical and architectural characteristics that qualify the Northern Bus Garage for listing in the NRHP and connect the community and others to the significance of the Northern Bus Garage, especially the restored portions of the 1906 building along 14th Street, NW, by explaining the role the facility played in the development of transportation in Washington, D.C. and the surrounding neighborhood. Broader topics related to commercial development, social history, African American history, and other themes associated with the facility and the community will also be addressed in the community room exhibits to provide relevant information from a wider variety of perspectives. All exhibits will be designed to be compatible with their historic setting, both exterior and interior, and will not cause any damage to historic fabric.

Specific Tasks:

One to three exterior interpretive signage exhibits will be developed to explain the historical and architectural significance of the Northern Bus Garage. Text will be based upon the NRHP nomination for the Capital Traction Company Car Barn, the NRHP Multiple Property Documentation for Streetcar and Bus Resources of Washington, DC 1862-1962, and related research. One exhibit will be used to explain the replica streetcar tracks that will be installed in front of the Northern Bus Garage along 14th Street, NW. Proposed signage locations will be

identified through consultation with the DC SHPO. The primary location of exterior exhibits will be adjacent to the restored portions of the building on 14th Street, NW, but additional exhibits may also be installed adjacent to and/or on newly constructed portions of the Northern Bus Garage to provide additional interpretive opportunities and to enliven and break down the scale of the large new building. The appearance of the exterior exhibits, especially those along 14th Street, NW and within or adjacent to public space, will be based upon existing interpretive signage exhibits within the District of Columbia (e.g. the Neighborhood Heritage Trails installed by Cultural Tourism DC and/or the Kalorama Citizens Association signage – see examples below) to provide consistency throughout the city and make it easier for users to recognize the as interpretive signage exhibits. Any interpretive signage exhibits that may be attached to the newly constructed portions of the Northern Bus Garage may be designed with greater flexibility.



OTHER

▶ OTHER ▶ Neighborhood Heritage Trails

Passport DC Draft

Neighborhood Heritage Trails

Old Pages



A visitor reads a sign at the Downtown Heritage Trail. The Cultural Tourism DC Heritage Trails connect cosmopolitan DC with local neighborhood culture and history.



QTY: 1 (24"x42") EXTERIOR GRAPHIC FOR PEDESTAL

SCALE: 3/4"=1'-0"

MATERIAL: EXTERIOR GRADE CHPL GRAPHIC FOR
SURFACE MOUNT ON PEDESTAL



Up to five interior interpretive signage exhibits will be installed in the 1600 sq. ft. community room which, for reference, has a finished wall height of 13 ft. 8 in. The interior exhibits shall focus on broader historical themes that relate to the development of the Northern Bus Garage and the surrounding neighborhood and community, including African-American History and related topics. The content will be determined in consultation with the DC SHPO and the consulting parties; the final number of exhibits will be determined in consultation with FTA and DC SHPO. The appearance of the interior signs should relate to that of the exterior signage exhibits, but more flexibility can be applied to the design of the interior exhibits provided they do not damage any historic interior fabric. For example, three-dimensional artifacts, audio/visual samples, personal memorabilia, and other creative methods of interpretation may be considered for incorporation into the designs.

Deliverables:

1. In accordance the Section 106 Memorandum of Agreement (MOA) the contractor hired by WMATA will solicit initial input from DC SHPO and the consulting parties regarding the topics they would like to have included in the interpretive signage exhibits. As appropriate to fully develop the topics, the contractor will conduct additional outreach to individuals or groups that are knowledgeable about community history.
2. Based upon the feedback provided in Deliverable 1 above, the contractor will research historical themes using primary and secondary sources. The contractor will conduct a minimum of three oral history interviews with relevant community members and people historically associated with the Northern Bus Garage facility. Oral histories shall be transcribed, and transcriptions shall be provided to consulting parties upon request.
3. The contractor will develop draft text and graphics for interpretive signage exhibits, along with recommendations for the locations, size, and related details in keeping with the existing interpretive signage examples cited above.
4. Full color drafts of all interpretive signage exhibits will be provided in digital format to the consulting parties and DC SHPO for review and comment.
5. The contractor shall submit digital versions of the full color drafts and all consulting party comments to the DC SHPO for final review. The contractor will consult further with the DC SHPO to finalize all aspects of the interpretive signage exhibits including but not limited to text, images, location, size and design. Once approved by DC SHPO in writing, the contractor shall prepare final plans and a cost estimate for fabrication and installation of all interpretive signage exhibits.
6. WMATA shall fabricate and install all the interpretive signage exhibits within 30 days of issuance of the building occupancy permit, in accordance with the Section 106 MOA.

APPENDIX 8: SECTION 106 MEMORANDUM OF AGREEMENT

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**MEMORANDUM OF AGREEMENT
AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER
AND
THE WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT IN
WASHINGTON, DC**

WHEREAS, the Federal Transit Administration (FTA) plans to provide financial assistance to the Washington Metropolitan Area Transit Authority (WMATA) for the proposed renovation of the Northern Bus Garage, historically known as the Capital Traction Company Car Barn, which is listed on the National Register of Historic Places (NRHP; NR# 13000290, May 22, 2013) (Undertaking) and located at 4701 14th Street, NW; and

WHEREAS, the Northern Bus Garage Renovation Project (Project) consists of the stabilization, restoration, and preservation of the portions of the Northern Bus Garage along 14th Street, NW, including the administration offices and tower, and historic walls on the north and south ends of the building; the demolition of the remaining portions of the historic building and later, non-historic additions; and replacement of the demolished portions with a new building that will be connected to the preserved historic building; and

WHEREAS, FTA has consulted with the District of Columbia State Historic Preservation Officer (DC SHPO) regarding the Undertaking in accordance with 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS, FTA in consultation with the DC SHPO has determined the Undertaking's Area of Potential Effects (APE), as defined in 36 CFR § 800.16(d), as including the entirety of the Northern Bus Garage footprint, and approximately one block of residential or commercial structures along (clockwise starting north) Decatur Street NW, Iowa Avenue NW, Arkansas Avenue NW, Buchanan Street NW, and 14th Street NW, and viewsheds from the intersections of Crittenden Street NW and 15th Street NW facing east, Decatur Street NW, and 15th Street NW facing east, as depicted in Attachment 1; and

WHEREAS, FTA and DC SHPO have applied the criteria of adverse effect pursuant to 36 CFR § 800.5 and determined that the Undertaking will have an adverse effect on the Northern Bus Garage because it will result in the destruction of part of the historic building; and

WHEREAS, WMATA, as a recipient of Federal assistance for the Project, is a consulting party in the Section 106 process pursuant to 36 CFR § 800.2(c)(4) with a responsibility for implementing the terms of this Memorandum of Agreement (MOA) and is invited to sign this MOA as an invited signatory pursuant to 36 CFR § 800.6(c)(2); and

WHEREAS, FTA and DC SHPO invited Uptown Main Street, the Sixteenth Street Neighborhood Association, the Northern Busbarn Neighbors, DC Advisory Neighborhood Commission (ANC) 4C02 and ANC 4C03 to be consulting parties pursuant to 36 CFR § 800.2(c)(5), and consulted with them regarding the effects of the Undertaking on historic properties; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), FTA has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation, and the ACHP declined to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii);

NOW, THEREFORE, FTA, the DC SHPO, and WMATA (henceforth referred to as the Signatories) agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties.

STIPULATIONS

FTA and WMATA shall ensure that the following measures are implemented.

I. IMPLEMENTATION OF DESIGN PLANS

WMATA will construct the Project according to the design plans included in Attachments 2, 3, and 4. These design plans were determined to be the preferred design through robust Section 106 consultation and public outreach to ensure the following items are met:

- A. New construction illustrated in Attachment 2 will be compatible with the historic Northern Bus Garage; will incorporate projecting and receding elements to decrease the monolithic nature of the new structure along Arkansas and Iowa avenues; and use cladding material and visual patterning to further “break down the scale” of the new building, especially near building entrances and garage doors.
- B. Restoration work will be informed by the *Identification of Historic Fabric Report* included in Attachment 3 and implemented in accordance with the plans and narrative scope of work included in Attachment 4 to ensure that historic fabric from the 1906 to 1959 NRHP Period of Significance will be preserved and the historic portions of the Northern Bus Garage will remain prominent features of the overall Northern Bus Complex. Restoration work includes, but is not limited to, preserving and repairing existing historic fabric, restoring elevation elements that have been replaced with inappropriate elements, replacing inappropriate 1980s windows with historically appropriate replacement windows, and preserving and restoring historic sections of the north and south walls and the original smokestack. As part of its on-going review for DC building permits, the DC SHPO may require minor revisions to the plans in Attachment 4.

II. INSTALLATION OF REPLICA STREETCAR TRACKS

To illustrate and highlight the Northern Bus Garage's original function as a streetcar car barn, WMATA shall install replica streetcar tracks in the area where streetcars used to enter and/or exit from the building along 14th Street, NW, as shown in Attachment 5. If the District Department of Transportation's (DDOT) Public Space Committee does not approve streetcar tracks extending through public space to 14th Street, NW, WMATA will provide information to document the Public Space Committee's decision, and may revise the plans in Attachment 5 to limit the streetcar tracks to WMATA-owned property. Regardless of their extent, the tracks shall be ADA compliant and avoid tripping hazards. The replica streetcar tracks will be installed as part of building construction project and will be fully installed within one week of issuance of the building occupancy permit.

III. INTERPRETIVE SIGNAGE EXHIBITS

- A. In consultation with the DC SHPO and consulting parties, WMATA shall develop and install one (1) to three (3) exterior interpretive signage exhibits and up to five (5) interior interpretive signage exhibits for the building's community room as described in Attachment 6. The exterior interpretive signage exhibits shall focus on the historical and architectural characteristics that qualify the Northern Bus Garage for listing in the NRHP and explain the replica streetcar tracks described in Stipulation II above. The interior community room exhibits may focus on broader historical themes that relate to the role the Northern Bus Garage played in the development of the surrounding neighborhood and community, including, but not limited to, topics such as African-American history, commercial development, and social history.
- B. In developing topics and materials for the interior interpretive signage exhibits, WMATA shall solicit initial input from consulting parties and DC SHPO. WMATA will reach out to additional groups or individuals who are knowledgeable about community history as appropriate in developing the content for the exhibits, as described in Attachment 6.
- C. WMATA, in consultation with DC SHPO and FTA, will determine which topics will be pursued further, based on input received through outreach described in Stipulation III.B. and Attachment 6, and decide how many exhibits will ultimately be installed.
- D. WMATA shall provide full color digital drafts of all exterior interpretive signage exhibits and interior interpretive signage exhibits to the consulting parties and DC SHPO for review and comment in accordance with Attachment 6.
- E. Once the content, design, and location are approved by DC SHPO in writing, WMATA shall prepare and install the signage in the approved locations within thirty days of issuance of the building occupancy permit.

IV. REVISIONS TO THE PROJECT

If WMATA refines the design of the Project in a manner that may result in additional or new effects on historic properties, WMATA will notify FTA and the DC SHPO of such changes. Before WMATA takes any Project action that may result in additional or new effects on historic properties, WMATA, FTA, and DC SHPO will consult to determine the appropriate course of action.

V. UNANTICIPATED DISCOVERIES

A. Archaeological Resources and Human Remains

1. In the event that a previously unidentified archaeological resource and/or suspected human remains are discovered during ground disturbance activities, all construction work involving subsurface disturbance will be halted in the area of the resource and in the surrounding area where further subsurface remains can reasonably be expected to occur.
2. WMATA shall notify the DC SHPO's District Archaeologist in writing via email and by telephone immediately.
3. The DC SHPO's District Archaeologist shall conduct a site visit within two working days (48 hours), if possible.
4. DC SHPO will contact the Metropolitan Police Department (MPD) and the DC Office of the Chief Medical Examiner (OCME) if suspected human remains are present per OCME protocols under DC Statute DC ST S 5-1406.
5. WMATA, FTA, and DC SHPO will consult to determine whether the resource is eligible for listing in the NRHP, and if so, whether adverse effects can be avoided or minimized.
6. If the resource is determined NRHP-eligible and adverse effects cannot be avoided, WMATA will propose a Treatment Plan to mitigate adverse effects. Upon concurrence by DC SHPO and FTA on the effects and Treatment Plan, WMATA will carry out the Treatment Plan.
7. Documentation, evaluation, and execution of the Treatment Plan will be undertaken by archaeology professionals meeting the requirements of Stipulation VI, comply with District guidelines for archaeology, and be conducted according to an archaeological work plan approved by the DC SHPO.

B. Architectural and Historic Built Environment Resources

1. If, in the course of implementing the Project, unforeseen and potentially adverse effects occur to above-ground historic properties within the APE, WMATA shall immediately

halt all construction work within fifty (50) feet of the unforeseen effect and take all reasonable measures to avoid or minimize further unforeseen effects. WMATA shall notify FTA and DC SHPO of the issue as soon as practicable, but no later than 3 days following the unforeseen effect.

2. WMATA shall ensure that an architectural historian or historic architect meeting the requirements of Stipulation VI investigates the work site and the historic property within seven (7) days. Following the investigation, WMATA shall forward to FTA and DC SHPO an Assessment of Effects Report to the historic property and proposed Treatment Plan to resolve any adverse effects on historic properties. Upon agreement with the Effects Report and Treatment Plan by DC SHPO and FTA, WMATA will carry out the Treatment Plan.
3. At the conclusion of this consultation, WMATA will provide all parties that participated in the discovery consultation a written summary of the consultation and its resolution. This summary may be transmitted to the participants via e-mail.

VI. PROFESSIONAL QUALIFICATIONS

WMATA shall ensure that all historic preservation and archaeological work performed by WMATA or on its behalf pursuant to this MOA shall be accomplished by or under the direct supervision of a person or persons who meet(s) or exceed(s) the pertinent qualifications in the Secretary of the Interior's Professional Qualification Standards (48 FR 44738-9) in those areas in which the qualifications are applicable for the specific work performed.

VII. MONITORING AND REPORTING

Each year following the execution of this MOA until it expires, is fulfilled, or is terminated, WMATA shall provide the signatories a summary report detailing work undertaken pursuant to the MOA. Such report shall include a summary and update on work being carried out in accordance with relevant stipulations, any scheduling changes proposed, any problems encountered, any disputes or objections received, and related topics. WMATA shall provide the annual report to the Signatories on or before the date of execution of the MOA.

VIII. DISPUTE RESOLUTION

Should any Signatory object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FTA shall notify the other Signatories and consult with such party to resolve the objection. If FTA determines that such objection cannot be resolved, FTA will:

- A. Forward all documentation relevant to the dispute, including FTA's proposed resolution, to the ACHP. The ACHP shall provide FTA with its advice on the resolution of the objection within thirty (30) calendar days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FTA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and

signatories and provide them with a copy of this written response. FTA will then proceed accordingly.

- B. If the ACHP does not provide its advice regarding the dispute within the 30-day time period, FTA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a decision, FTA shall prepare a written response that takes into account any timely comments regarding the dispute from the Signatories and provide the Signatories and the ACHP with a copy of such written response.
- C. FTA and WMATA's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remains unchanged.

IX. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all Signatories. The amendment will be effective on the date a copy signed by all Signatories parties is filed with the ACHP. Revisions to any Appendix to this MOA determined to be non-substantive by the Signatories will not require an amendment to the MOA but must be agreed to in writing by the Signatories.

X. TERMINATION

If any Signatory determines that the terms of this MOA will not or cannot be carried out, that party shall immediately consult with the other Signatories to attempt to develop an amendment per Stipulation IX, above. If within 30 days, or another timeframe agreed to by all Signatories, agreement on an amendment cannot be reached, any Signatory may terminate the MOA upon written notification to other Signatories.

If the MOA is terminated, and prior to work continuing on the Undertaking, FTA must either: (a) execute another MOA pursuant to 36 CFR § 800.6; or (b) request, take into account, and respond to the comments of the ACHP pursuant to 36 CFR § 800.7. FTA shall notify the signatories as to the course of action it will pursue.

XI. GENERAL PROVISIONS

- A. Counterparts; Electronic Signature
This MOA may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This MOA may be signed electronically.
- B. Distribution of MOA
Within one (1) week of the last signature on this MOA, FTA shall provide each Signatory and consulting party with one high quality, legible, full color, electronic copy of the fully-executed MOA and all of its attachments integrated into a single document. Internet links will not be used as a means to provide copies of attachments since links to web-based

information often change. If the electronic copy is too large to send by e-mail, WMATA shall provide a copy of this MOA as described above, on a flash drive, compact disc, or other suitable, electronic means.

XII. DURATION

This MOA will expire if its terms are not carried out within ten (10) years from the date of execution, or when FTA determines that all stipulations have been satisfactorily fulfilled. WMATA shall notify FTA when the project is completed and there are no further opportunities for unanticipated discoveries as described in Stipulation V above. Prior to expiration, FTA may consult with the Signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation IX.

Execution of this MOA and implementation of its terms evidences that FTA has taken into account the effects of the Undertaking on historic properties and afforded the ACHP an opportunity to comment.

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT
WASHINGTON, DC**

SIGNATORY

FEDERAL TRANSIT ADMINISTRATION

By: _____

Date: _____

Terry Garcia-Crews
Regional Administrator, Region III

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT
WASHINGTON, DC**

SIGNATORY

DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER

By: 

Date: 12/15/2021

David Maloney
District of Columbia State Historic Preservation Officer

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT
WASHINGTON, DC**

INVITED SIGNATORY

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

By: Andrew Off
E013349 WMATA

Digitally signed by Andrew
Off E013349 WMATA
Date: 2021.12.10 09:57:04
-05'00'

Date: _____

Andrew B. Off
Executive Vice President, Capital Project Delivery

LIST OF ATTACHMENTS

Attachment 1: Area of Potential Effects

Attachment 2: Building Elevations and Perspective Views

Attachment 3: WMATA Northern Bus Garage: Identification of Historic Fabric Report

Attachment 4: Restoration Narrative Scope of Work, Elevations and Plans

Attachment 5: Plans for Replica Streetcar Track Installation

Attachment 6: Interpretive Signage Exhibits

ATTACHMENT 1
AREA OF POTENTIAL EFFECTS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT



Area of Potential Effects —————

ATTACHMENT 2
BUILDING ELEVATIONS AND PERSPECTIVE VIEWS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT

Northern Bus Garage

Proposed Perspective Views



SOUTHWEST VIEW LOOKING NORTHEAST ALONG 14TH STREET

Northern Bus Garage Proposed Perspective Views

VIEW LOOKING SOUTHEAST ALONG 14TH STREET AT ENTRY



Northern Bus Garage

Proposed Perspective Views



VIEW LOOKING SOUTHEAST ALONG 14TH STREET

Northern Bus Garage

Proposed Perspective Views



VIEW LOOKING NORTHWEST ALONG IOWA

Northern Bus Garage Proposed Perspective Views



VIEW LOOKING SOUTHWEST ALONG ARKANSAS

Northern Bus Garage Proposed Perspective Views



VIEW LOOKING WEST ALONG BUCHANAN AT SOUTHEAST CORNER

ATTACHMENT 3
IDENTIFICATION OF HISTORIC FABRIC REPORT
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT



1914 Photograph of the Northern Bus Garage looking southeast (DC History Center)

WMATA NORTHERN BUS GARAGE: IDENTIFICATION OF HISTORIC FABRIC REPORT

Informing the Treatment of the Existing Structure and
Design of the Replacement Bus Garage

February 2020

**BEYER
BLINDER
BELLE**

Table of Contents

Introduction	3
History and Significance of the Building	3
Physical Description and Chronology of Development.....	5
Summary of Exterior Conditions.....	15
Summary of Treatment and Effects to the Historic Fabric	16
Bibliography	17

Table of Figures

Figure 1. 1906 photograph of the car barn and administrative offices during construction (Washington Times).....	4
Figure 2. 1911 Baist Real Estate Map; Decatur Streetcar Barn is the pink building labeled as the Capital Traction Co. (Library of Congress).....	5
Figure 3. 1914 exterior photograph of the northwest corner of the streetcar barn showing the administrative offices, tower, and two of the three original streetcar openings. The north elevation features arched window openings and hipped roof pavilions at the center and western corner of the elevation (DC History Center)	6
Figure 4. 1914 interior photograph of the Decatur Streetcar Barn showing the transfer table in the foreground and the skylight above (DC History Center).....	7
Figure 5. 1959 Sanborn map showing the garage (then owned by the Capital Transit Company) and the 1926 addition at the east side (Capital Traction Company Car Barn National Register Nomination Form)	8
Figure 6. 1974 photograph of the bus garage looking northwest; the 1926 addition is visible on the right (WMATA Archive, George Washington University Special Collections)	8
Figure 7. 1978 Renovation drawing; red arrow shows the smokestack adjacent to the boiler room and coal storage (WMATA)	9
Figure 8. Angled brick wall on right constructed sometime after 1914 and prior to 1978. The wall created an additional interior room and enclosed the north elevation of the tower at that level. The other angled wall with the overhanging door was added after 1978 (BBB)	10
Figure 9. Contemporary aerial image of the bus garage looking southeast; the original bus garage was wrapped in the one-story 1987-1992 addition that enclosed Decatur Street to the left (north) of the administrative offices and provided WMATA with rooftop parking at the south and east (Google)	11
Figure 10. 1987 photograph looking east showing the extent of the demolition that occurred within the bus garage. The entire ceiling and roof structure in this area was removed except for one bay along the perimeter of the east wall (WMATA Archive, George Washington University Special Collections)	11
Figure 11. Diagram showing the extent of the original roof structure that was removed during the 1987-1992 renovation in green. The red outline shows the original footprint of the garage and the blue outline shows the contemporary property outline. Everything outside the red outline was added during the 1987-1992 renovation (BBB).....	12
Figure 12. Bus entry at the southern end of the west façade was added during the 1987-1992 renovation (BBB).....	12

Figure 13. The two doorways to the right of the pedimented bay are not historic. The one on the left was changed from a window opening to a door prior to 1974 while the one on the right was changed during the 1987-1992 renovation (BBB)	13
Figure 14. A truncated roof shelters the original north elevation and Decatur Street. Large openings for buses were punched in the wall during the 1987-1992 renovation (BBB)	13
Figure 15. Roof of the 1987 addition abuts the original east elevation. Several of the arched windows have been infilled with brick (BBB)	14
Figure 16. Lower level of the bus garage; the original columns and ceiling are present, however, the concrete floor was removed and excavated in the 1980s. The new concrete footings below the columns are visible in the photo (BBB)	15
Figure 17. The north facing streetcar/bus opening adjacent to the tower exhibits stone cracking, spalling, and masonry soiling which require repair (BBB)	16
Figure 18. Proposed upper level plan of bus garage with historic overlay; the 14 th street (west) façade will be retained along with the administrative offices and tower (Wendel)	18

Introduction

The Northern Bus Garage is listed in the National Register of Historic Places (NRHP) (listed in 2013) and the D.C. Inventory of Historic Sites (listed in 2012). The building, located at 4615 14th Street NW and formerly known as the Capital Traction Company Car Barn or the Decatur Streetcar Barn, was originally constructed by the Capital Traction Company in 1906. Fully converted from a streetcar barn to a bus garage in 1959 and transferred to WMATA in 1966, the structure is a vital storage and maintenance facility for WMATA's bus transportation services. The original building, designed in the Italian Renaissance Revival style, is a one-story brick masonry building with partial basement level, the length of which spans two city blocks. The building appears to be two complementary masses; one being a two-story structure used as administrative offices and the other housing the repair shops and garage, which features a three-story tower. The building was significantly altered during renovation work completed in 1987-1992. During this time, the southern and eastern elevations of the building were enveloped in a one-story addition with rooftop parking. Decatur Street, to the north, was enclosed and substantial demolition to the roof, interior columns, and basement floor slab also occurred. Additionally, there were many alterations to the administrative offices and the original building elevations.

Current operational and programmatic challenges require that the bus garage be rebuilt while preserving the historic 14th Street façade of the building. It is important that the Northern Bus Garage Replacement Project (the project) meet WMATA's goals of modernization, sustainability, increased community integration, and flexibility for the future needs of electric buses while preserving the historic fabric that retains integrity and expresses the significance of the building.

FTA-funded projects undertaken by WMATA are subject to Section 106 of the National Historic Preservation Act (NHPA), requiring Federal agencies take into account the effects of their undertakings on historic properties and, if the project is determined to have an adverse effect, afford the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on such undertakings. The Section 106 process was initiated in April 2019, and the undertaking was determined to have an adverse effect by FTA and the DC State Historic Preservation Office, although the ACHP declined to participate in the consultation. The project also requires DC Historic Preservation Review Board (HPRB) review and approval. Through the Section 106 process, the FTA has determined that mitigation will be recorded in a Memorandum of Agreement.

History and Significance of the Building

The bus garage was constructed in 1906 to serve as a streetcar storage and maintenance facility and house administrative offices for the Capital Traction Company. (See **Figure 1**) The building was designed by architecture firm Wood, Donn and Deming and was built by construction firm Richardson and Burgess, opening in 1907. In 1926, the basement portion of the building was leased to the Washington Rapid Transit Company for bus maintenance and storage. Between 1956 and 1962, all D.C. streetcar lines were eliminated or converted to bus routes. In 1959, the building was converted to a bus garage, and ownership was transferred to WMATA in 1966.¹

¹ National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

The Northern Bus Garage building was listed in the D.C. Inventory of Historic Sites in 2012, and in the NRHP in 2013 under Criteria A and C for its architectural and historic significance.² It is considered an outstanding example of Italian Renaissance Revival design for its building type and is directly associated with the streetcar system, a public transportation system that helped develop and determine development patterns of the District of Columbia.³ The building is also eligible for designation under the multiple-property document Streetcar and Bus Resources of Washington, D.C. 1862-1962. According to the multiple property documentation form, to remain eligible under Criterion C, the building must retain its high-style architectural design as well as its original form or shed-like appearance and the streetcar entry openings.⁴

The building's period of significance is from 1906-1959, spanning the period when it served as a streetcar barn.⁵ The period of significance ends when it was converted to a bus garage. Since 1959, many significant alterations have been made to the building.

Figure 1. 1906 photograph of the car barn and administrative offices during construction (Washington Times)



² Under NRHP Criterion A, properties are eligible for listing if they are associated with events that have made a significant contribution to the broad patterns of our history. Under NRHP Criterion C, properties are eligible for listing if they embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, possesses high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. Under the criteria for the DC Inventory, the property is eligible for designation based on the following values: history and architecture and urbanism.

³ National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

⁴ National Register of Historic Places, Streetcar and Bus Resources of Washington, D.C. Multiple Property Listing, Washington, D.C., #64500948

⁵ National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

Physical Description and Chronology of Development

The Northern Bus Garage site is bounded by 14th Street to the west, Decatur Street to the north, Iowa Ave to the northeast, Arkansas Ave to the southeast, and Buchanan Street to the south. The main façade of the building faces 14th Street, and therefore, the west façade is the most decorative. As originally constructed, the brick masonry car barn measured 537 feet (north-south) by 208 feet (east-west), occupying nearly half of the site on Square 2811 and a portion of Square 2815. As platted, the two squares were intended to be divided by Crittenden Street. However, because of the construction of the car barn, the road was never laid, and the squares remained joined. The 1911 Baist Real Estate Map shows the original footprint and surrounding streets of the garage. It is interesting to note the residential character of the neighborhoods to the north of the garage and that the Capital Traction Company owned the squares west of 14th Street, yet the area was not developed at the time. (See **Figure 2**)

Figure 2. 1911 Baist Real Estate Map; Decatur Streetcar Barn is the pink building labeled as the Capital Traction Co. (Library of Congress)



The building was designed to look like two complementary masses: a two-story structure housing the administrative offices, featuring a hipped roof with overhanging eaves, and a two-story car barn and repair shop, characterized by a grand three-story tower with a clerestory. As designed and constructed, the garage consisted of an upper (main level) entered along 14th Street and a partially excavated lower (basement) level, accessed from the south elevation of the building. Exterior character-defining features included brick walls accented with stone belt courses, quoining, and keystones; shallow-pitched hipped roofs of the tower and administrative offices, and bracketed eaves. (See **Figure 3**) The garage and repair shop featured a flat roof with a front gable parapet and several large skylights. The building originally

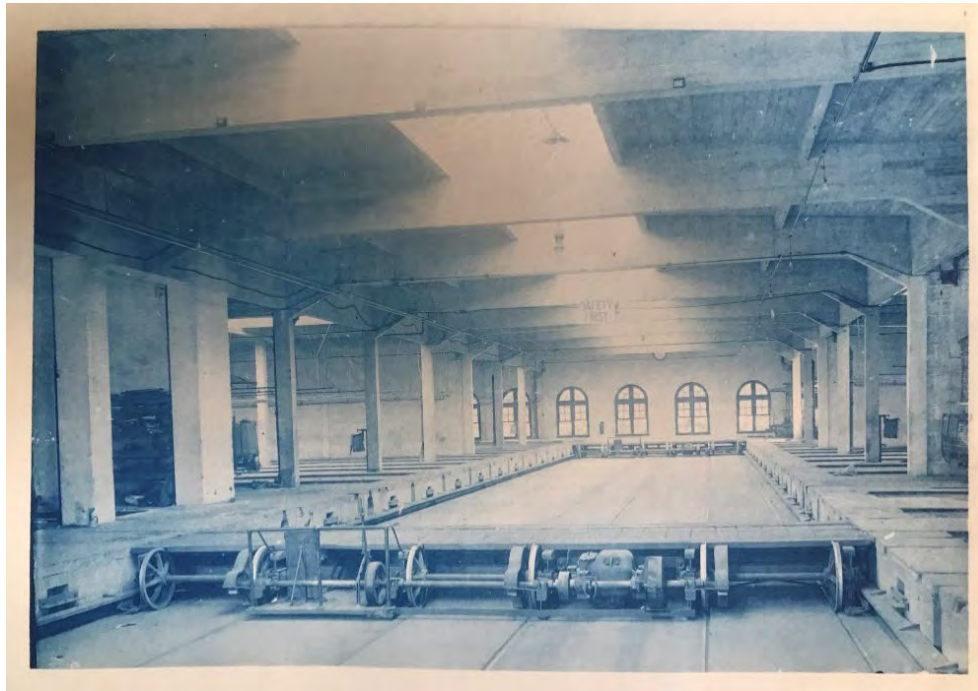
featured three streetcar entrances and exits on the west façade: two facing west and framing the administrative offices and one facing north, immediately adjacent to the tower. Arched window openings on all elevations provided light to the garage and repair shop. The administrative offices, tower, and several projecting pavilions along the north and west elevations featured rectangular windows.

The interior of the car barn is formed by the concrete columns and roof structure. Skylights and the arched window openings provided plentiful daylight. The upper level featured two transfer tables, allowing for the efficient mobility and storage of the street cars. The transfer tables ran parallel to each other from the front (west) to rear (east) elevations of the building. (See **Figure 4**)

Figure 3. 1914 exterior photograph of the northwest corner of the streetcar barn showing the administrative offices, tower, and two of the three original streetcar openings. The north elevation features arched window openings and hipped roof pavilions at the center and western corner of the elevation (DC History Center)



Figure 4. 1914 interior photograph of the Decatur Streetcar Barn showing the transfer table in the foreground and the skylight above (DC History Center)



In 1926, the Washington Rapid Transit Company, established in 1921, leased the lower level of the garage from the Capital Traction Company to use for buses. According to the NRHP nomination, a one-story addition was added to the east elevation of the building at this time to provide storage facilities for the buses. The addition is visible in the 1959 Sanborn map and a 1974 aerial photograph of the bus garage. (See **Figure 5** and **Figure 6**) It is possible that the 1926 addition was expanded after 1959, as it appears slightly larger in the 1974 photograph.

Presumably, many interior alterations were made circa 1959 when the streetcar barn was fully converted to a bus garage, however, the streetcar openings along the west façade continued to be used as bus entries and exits to the garage and repair shops. It is likely that the transfer tables and bays for the streetcars were infilled. Boring samples completed in December 2019 have revealed that partial track infrastructure is extant, although encapsulated in concrete infill. Currently, no documentation has been found that illustrates the interior changes that occurred during this time. Exterior photographs indicate that an additional bus opening was added on the west façade between 1949-1962, immediately adjacent to the north facing opening to the south of the tower. The opening was cut within the pedimented projection, requiring the removal of an arched window opening. A molded cast stone surround, complementing the surrounds of the original openings, was installed. Photographs from 1974 also indicate that an arched window opening at the southern end of the west façade, to the right (south) of the pedimented parapet, was changed to a doorway.

Figure 5. 1959 Sanborn map showing the garage (then owned by the Capital Transit Company) and the 1926 addition at the east side (Capital Traction Company Car Barn National Register Nomination Form)

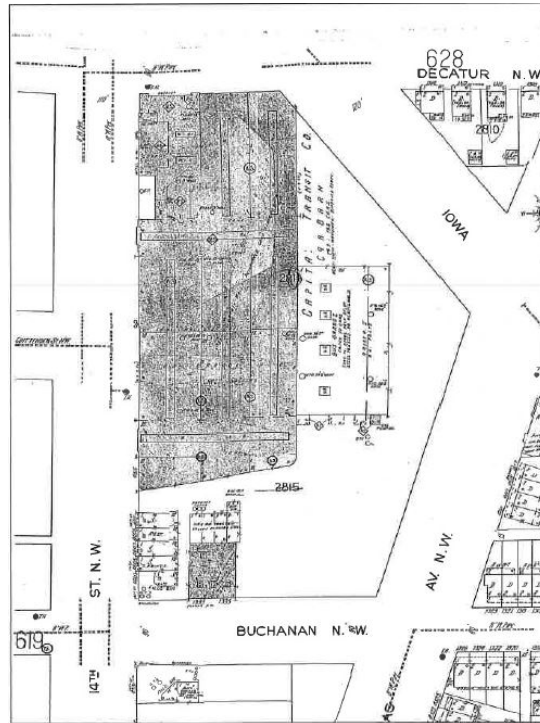


Figure 6. 1974 photograph of the bus garage looking northwest; the 1926 addition is visible on the right (WMATA Archive, George Washington University Special Collections)



Another instance of unknown alteration occurred to the north of the tower. 1914 blueprints show that the north elevation of the tower adjacent to the streetcar opening was originally exposed, however, 1978 existing condition drawings show that an angled wall had been built at the streetcar opening, closing off the north elevation of the tower. Today, the wall is still extant, and a doorway has been inserted. (See **Figure 8**)

BUS STORAGE & REPAIR

SHOP AREA.
(SEE DWG. A-16 FOR DETAILED PLAN OF NEW YORK)

STORAGE

TOILET

TOILET & LOCKERS

LOCKERS

FOR WORK IN THIS AREA SEE A-16

NEW EXH PAN

NEW EXH PAN

NEW CEILING HUNG H.V. UNITS & PLENUMS

REMOVE EAST WALL P.N. & REPLACE W/ WINDOW

REMOVE CHAIN-LINK PARTITIONS & RAIL

NEW ELEVATOR DOOR (SEE DWG. A-16)

REMOVE EXIST. WINDOWS, GREEN PAN & REPLACE W/ LOUVERED SEE DWG. M-1

AREA WALL

CONC. STEPPED RFT

BOILER ROOM - SEE A-16, M-1 & M-2

NEW STRUCTURAL RAMP ABOVE SEE DWG. A-15

PLAN: UNLESS I.L.D.

N

Figure 8. Angled brick wall on right constructed sometime after 1914 and prior to 1978. The wall created an additional interior room and enclosed the north elevation of the tower at that level. The other angled wall with the overhanging door was added after 1978 (BBB)



Numerous significant alterations to the property occurred in the 1980s. To reduce noise effects from bus operations to the surrounding neighborhoods, a thirteen-foot high red brick wall was erected in 1982-1983 around the WMATA property, encircling nearly all of Squares 2811 and 2815, except for the southwest corner at Buchanan and 14th Streets.

From 1987 to 1992, the bus garage underwent a phased renovation and addition. The 1926 bus garage addition to the east of the original structure was demolished, and a one-story maintenance facility and garage with rooftop parking was constructed within the 1983 property wall, wrapping the east, south, and north elevations of the building. (See **Figure 9**) The majority of the original roof was demolished and rebuilt except for roofing over several bays at the northern end and a bay that remained along the full perimeter of the building. (See **Figure 10** and **Figure 11**) All but two of the original wood windows were replaced with aluminum windows, and several window openings were enclosed or changed to bus openings. A bus entry was inserted at the southern end of the west façade, immediately left (north) of the pedimented parapet at that end. (See **Figure 12**) To the right (south) of the pediment, an additional window was changed to a doorway. (See **Figure 13**)

The north and majority of the east elevations of the building were enclosed by the addition and bus ramp. The ramp descends west to east and north to south, following the topography of the site. As a result, Decatur Street, between 14th Street and Iowa Ave. was closed to traffic and was incorporated into the bus garage. A truncated roof encloses the original north elevation of garage. The original north elevation, which featured arched window openings was significantly altered with new bus openings, allowing buses to easily move from the garage to the bus ramp and exit at Decatur and 14th Streets. (See **Figure 14**) The east elevation was enveloped by the addition. The original arched window openings are

still present, although many of the fanlights have been infilled with brick or replaced with louvers. The original east wall remains visible at the upper level interior and from the roof of the 1987 addition. (See **Figure 15**) The addition also had significant effects to the south elevation of the original structure. The lower level of the south elevation was fully enclosed and many of the windows at the upper level were removed and filled with glass block.

Figure 9. Contemporary aerial image of the bus garage looking southeast; the original bus garage was wrapped in the one-story 1987-1992 addition that enclosed Decatur Street to the left (north) of the administrative offices and provided WMATA with rooftop parking at the south and east (Google)



Figure 10. 1987 photograph looking east showing the extent of the demolition that occurred within the bus garage. The entire ceiling and roof structure in this area was removed except for one bay along the perimeter of the east wall (WMATA Archive, George Washington University Special Collections)



Figure 11. Diagram showing the extent of the original roof structure that was removed during the 1987-1992 renovation in green. The red outline shows the original footprint of the garage and the blue outline shows the contemporary property outline. Everything outside the red outline was added during the 1987-1992 renovation (BBB)



Figure 12. Bus entry at the southern end of the west façade was added during the 1987-1992 renovation (BBB)



Figure 13. The two doorways to the right of the pedimented bay are not historic. The one on the left was changed from a window opening to a door prior to 1974 while the one on the right was changed during the 1987-1992 renovation (BBB)



Figure 14. A truncated roof shelters the original north elevation and Decatur Street. Large openings for buses were punched in the wall during the 1987-1992 renovation (BBB)



Figure 15. Roof of the 1987 addition abuts the original east elevation. Several of the arched windows have been infilled with brick (BBB)



Significant interior alterations were made to the administrative offices. Rooms were reconfigured, and a new stair and elevator tower addition was constructed at the north end of the office building. The stair and elevator tower was designed to match the Italian Renaissance Revival style of the rest of the building and features the same materials, a slate hipped roof, overhanging eaves with brackets, and similar brick detailing. The interior of the garage was also impacted. The majority of columns on the upper level were removed and reconstructed when the majority of the roof was demolished and rebuilt. On the lower level, the original columns and ceiling slab remain, however, the concrete floor slab was removed, and the floor was excavated approximately 12 inches and re-laid. The original columns and exterior walls are supported by non-historic concrete footings to adjust for the lowered floor. (See **Figure 16**)

Figure 16. Lower level of the bus garage; the original columns and ceiling are present, however, the concrete floor was removed and excavated in the 1980s. The new concrete footings below the columns are visible in the photo (BBB)



Summary of Exterior Conditions

The administrative offices and 14th Street façade exterior building fabric are in overall fair condition. Open and debonded masonry joints are present but are concentrated to vertical facing joints at the building cornices, projecting string courses, and sills. The stone and brick masonry exhibit limited spalling, cracks, perforations from ferrous metal inserts or previous attachments, inappropriate past masonry repairs and patches, soiling, and biological growth. Cracks and spalling are especially present at the stone cornice and the stone surrounds at the original streetcar openings along 14th Street. (See **Figure 17**) The pebble-dashed stucco material present at the eaves of the administrative offices and tower is in good to fair condition, exhibiting some areas of cracking and missing stucco. Many slates on the hipped roof are broken or loose. Metal snow guards are bent and ineffective and the construction of the slate roof shows deficiencies. The roof should be investigated for appropriate flashing, slate headlap, underlayment, and ridge construction. The roof may require replacement.

Repair and restoration of the administrative offices and 14th Street NW masonry façade will require a variety of treatments. Cracks should be repaired and patched with grout or restoration mortar with a composition appropriate for the masonry substrate. Structural cracks may require the insertion of pins to further stabilize the masonry. Small spalls may be tooled to sound stone so that further spalling doesn't occur, and that water doesn't collect or pool. Larger spalls may require patching with restoration mortar or full or partial masonry replacement. All open and debonded joints should be repointed using matching mortar and missing masonry patched with matching materials. Ivy plants growing on the masonry should be carefully removed. The masonry should be cleaned using the gentlest means possible to remove soiling, staining, and biological growth. Soiling is especially apparent at the cornice and at the base of the building.

Figure 17. The north facing streetcar/bus opening adjacent to the tower exhibits stone cracking, spalling, and masonry soiling which require repair (BBB)



Summary of Treatment and Effects to the Historic Fabric

As discussed above, the bus garage has experienced many alterations across its 114-year history, especially as a result of the 1987-1992 renovation. Such changes have affected the integrity of the historic fabric. The 14th Street façade has been altered the least and retains much of its original Italian Renaissance Revival design. The façade, including the administrative offices and tower, has a high level of integrity of design, materials, and workmanship. The remaining elevations have been significantly modified and the integrity of design, materials, and workmanship has been diminished. The same can be said for the interior of the garage, which was significantly altered by the removal of the majority of the upper level columns, lower level slab, and roof structure.

The drawing below shows the existing historic masonry walls overlaid on the design for the upper level of the new bus garage. (See **Figure 18**) Due to the alterations of the historic fabric and the need for a new bus garage that can accommodate efficient and safe vehicle circulation for 40'-0" and 60'-0" articulated buses, the existing bus garage must be replaced. The new bus garage will also ensure adequate height clearance for newer diesel buses and future overhead charging for electric buses, be reorganized to expand the number of maintenance bays and bus storage parking, incorporate a retail element for increased community integration, will be able to 100 percent filter exhaust air, and will reduce operating costs through sustainable strategies. The replacement bus garage project proposes that the east wall and the majority of the north and south walls be demolished. However, the entire west façade, including the administrative offices and tower, would be retained and preserved allowing for the conservation, repair, and cleaning of areas of damage, weathering, soiling, and staining. There is also the opportunity to replace the existing widows with replicas of the historic windows and restore window openings that were previously infilled or replaced with louvers. Such treatments would be developed as design coordination for the project continues. Portions of the upper level of the north and

south elevations, immediately adjacent to the west façade, may be retained but will require continued design coordination and input from the Section 106 process and other review processes, before a final decision on treatment can be made.

Bibliography

Primary Resources

D.C. History Center

The D.C. History Center, located at the Carnegie Library in Washington, D.C. holds several photograph collections, including the John P. Wymer collection, Kathleen Sinclair Wood collection, the Crockett streetcar photo collection, and the Joseph Jessel streetcar slide collection, which had several photographs of the Northern Bus Garage from the 1940s through the 1960s. The Capital Transit Company records are also located at the History Center, which included photographs and blueprint drawings from 1914.

WMATA Archive at the George Washington University Special Collections Library

The WMATA Archives at the George Washington University Special Collections Library held many photographs of the bus garage from 1974 and of the 1987-1992 renovation and addition work.

Secondary Resources

National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

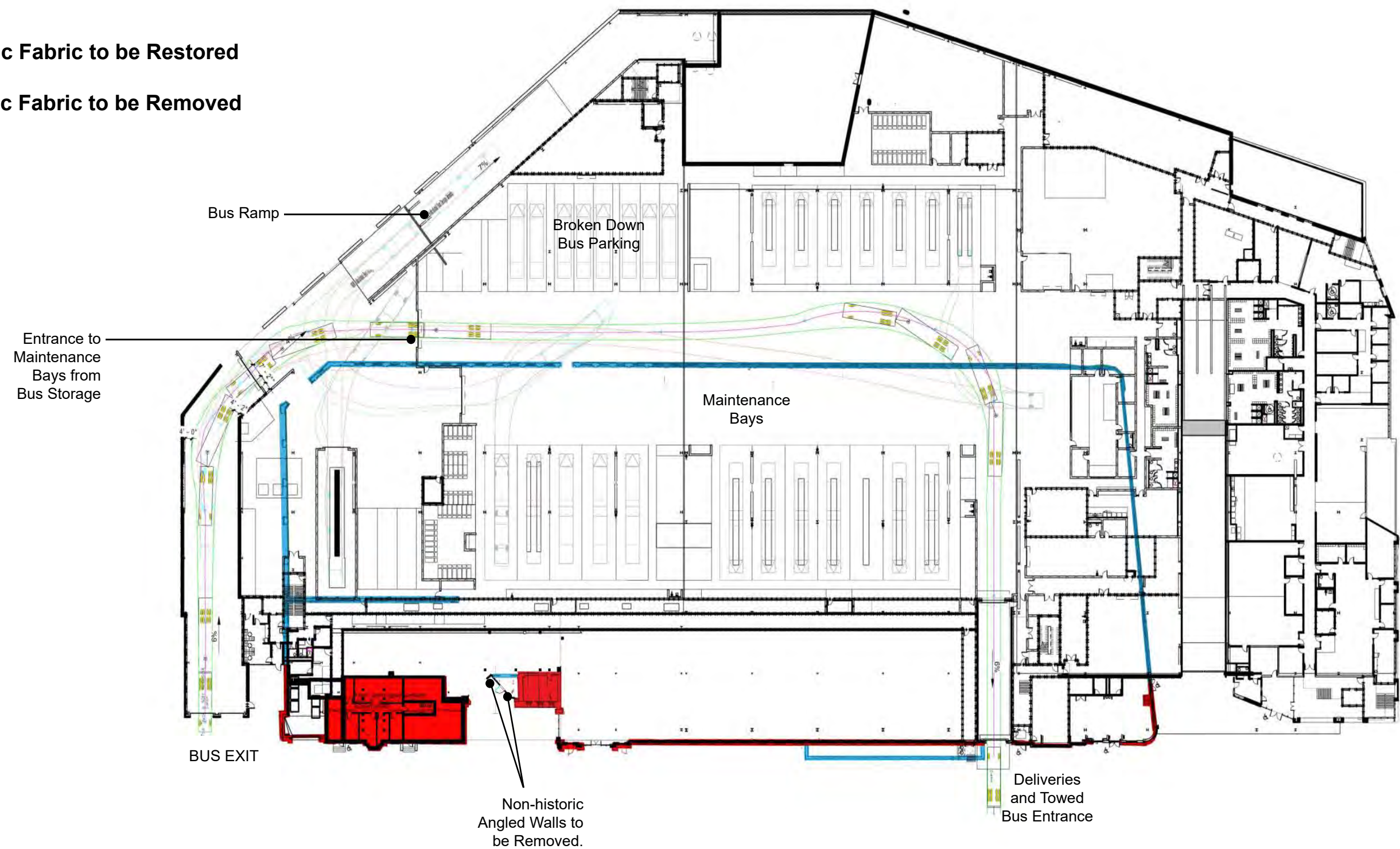
National Register of Historic Places, Streetcar and Bus Resources of Washington, D.C. Multiple Property Listing, Washington, D.C., #64500948

Northern Bus Garage

Proposed Floor Plan with Historic Overlay – Upper Level



- Historic Fabric to be Restored
- Historic Fabric to be Removed



ATTACHMENT 4
RESTORATION NARRATIVE SCOPE OF WORK, ELEVATIONS AND PLANS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT

Restoration Narrative Scope of Work

The restoration scope for the WMATA Northern Bus Garage will include the restoration of the 14th Street elevation; a 36'8" portion of the original south elevation, including the chimney; and a 28' 7" portion of the original north elevation. The restoration will include the removal of non-original alterations, including the c. 1987-1992 Administration Building stair tower, the 1970s angled brick wall in the original streetcar entry, two non-original pedestrian doors in the 14th Street elevation (northern door c. 1970, southern door c. 1987-1992), and the removal of non-original brick window infills. The elevations will be cleaned, repaired, and repointed where needed. The 14th Street NW elevation will be supported by temporary supports during excavation and construction of the new facility. The south portion of the elevation that will be retained will be catalogued, dismantled, and reassembled prior to restoration as its foundations are in conflict with the new bus drive aisle.

The elevation restoration includes the installation of new aluminum wrapped wood core IGU windows and exterior Administration Building doors to match the historic windows and doors as closely as is possible. Historic images, such as photographs and available plans, were used as source material for the design of new doors and windows. The historic symmetrical design of the doors will be retained for the new doors, in keeping with the historic character of the building. The two extant original wood windows on the 14th Street NW elevation will be restored and reinstalled in their existing locations. A historic round wood window currently located at the east elevation will be salvaged, restored, and installed in an opening in the 14th Street NW elevation where this same type of window was originally located, but the window was removed and bricked in at some point.

A survey completed in February of 2020 determined that overall, the brick masonry is in good condition. There are limited areas of step cracking, bio growth, staining, incompatible repointing, and previous alterations. All historic fabric will be cleaned in a manner consistent with the Secretary of the Interior's Guidelines for Rehabilitation: cleaning soiled masonry surfaces with the gentlest method possible. Non-original brick or mortar will be removed. Non-original and deteriorated mortar will be removed and replaced with an approved matching mortar as noted above. Non-original brick will be replaced with historic brick salvaged from the site and mortar analysis will be undertaken to determine an acceptable mortar for repairs. In order to retain as much historic masonry in situ as possible, small brick cracks or mechanical damage will be repaired rather than replaced. These repairs are ONLY for minor cracks and holes from anchors drilled in the face of the brick will be repaired with a patching mortar in compliance with the Secretary of the Interior's Guidelines for Rehabilitation.

The limestone and granite portions of the elevation are in a more distressed condition than the brick and will require more repair and, in select locations all noted on the drawings, replacement to match historic. Small areas of stone damage will be repaired with custom matched mortar repairs or dutchman. Only in a few limited instances will replacement to match historic be required. All limestone and granite will be cleaned in a manner consistent with the Secretary of the Interior's Guidelines for Rehabilitation: cleaning soiled masonry surfaces with the gentlest method possible. As detailed in contract documents, the non-historic parapet flashing currently installed in some locations on 14th Street will be removed to expose the historic limestone beneath. Small areas of stone damage will be repaired with custom matched mortar repairs or dutchman. Only in a few limited instances will replacement to match historic be required.

The pebble dash stucco at the cornice of the Administration Building and Tower will be cleaned in a manner consistent with the Secretary of the Interior's Guidelines for Rehabilitation: cleaning soiled masonry surfaces with the gentlest method possible. Repairs are identified in the contract documents where cracking and de-laminating has occurred. The painted wood trim in the cornice will be cleaned, repaired, and repainted.

The restoration will include the replacement of the non-original Administration Building and Tower slate and metal roofs with historically appropriate slate and metal roofing. The roofs and underlayment require full replacement based on poor condition. New gutters and downspouts to match the historic will be installed.

Restoration Elevations and Plans on following pages:



1914 Photograph (DC History Center)

WMATA Northern Bus Garage

4615 14th Street NW
Washington, D.C. 20011

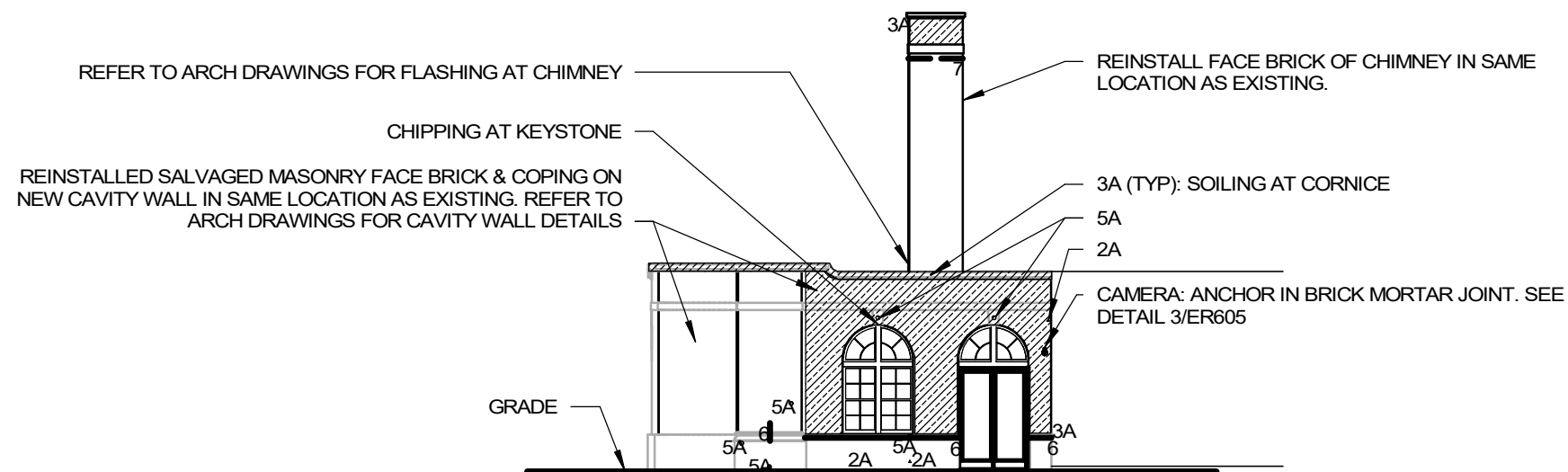
Elevations for Section 106 Consultation
October 1, 2021

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

PREPARED BY:

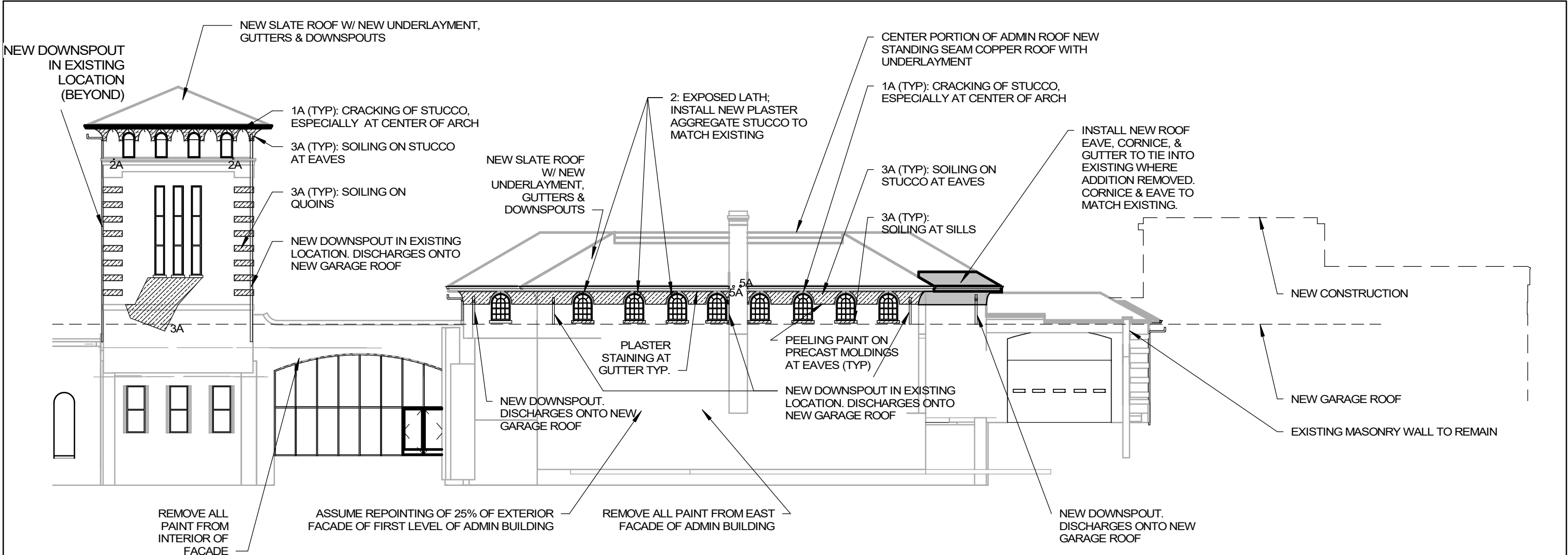
BEYER BLINDER BELLE ARCHITECTS & PLANNERS LLP
3307 M STREET NW
WASHINGTON, D.C. 20007

Northern Bus Garage - Preservation Treatment Approach - Elevations



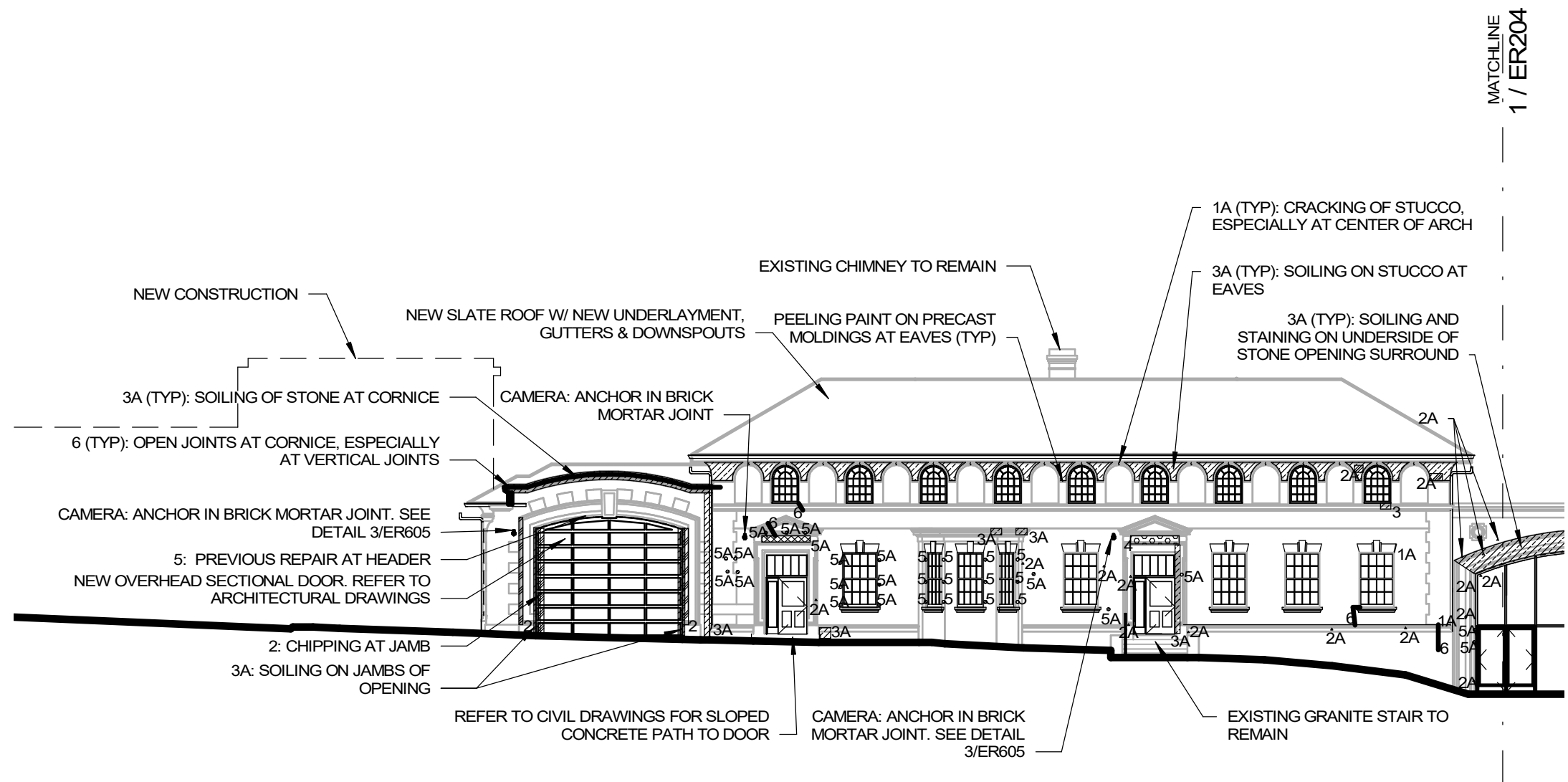
SYMBOLS LEGEND		SHEET NOTES	
— EXISTING — NEW OR REINSTALLED SALVAGED HISTORIC FABRIC EXISTING CONDITIONS REQUIRING TREATMENT 1 - REPAIR CRACKS AND DEFORMATION 1A - CRACK 2 - REPAIR DETACHMENT AND DISLOCATION 2A - CHIPPING 3 - CLEAN DISCOLORATION AND DEPOSITS 3A - SOILING 4 - REMOVE BIOLOGICAL COLONIZATION	5 - ALTERATIONS/PREVIOUS REPAIRS. REMOVE NON-ORIGINAL BRICK OR STONE & INSTALL SALVAGED HISTORIC BRICK OR NEW STONE TO MATCH EXISTING. 5A - FERROUS METAL INSERTS 6 - OPEN JOINT 7 - DEBONDED JOINT 8 - INACCESSIBLE PORTION OF FACADE DUE TO EXISTING CONSTRUCTION. BBB TO SURVEY AFTER DEMOLITION REFER TO BRICK AND STONE REPAIR, REPOINTING AND CLEANING SPECIFICATIONS FOR TREATMENT PROCEDURES	NEW ALUMINUM WRAPPED WOOD CORE WINDOW WITH IGU RE: ER-601 FOR WINDOW SCHEDULE REINSTALLED RESTORED HISTORIC WOOD WINDOW RE: ER-601 FOR WINDOW SCHEDULE NEW DOOR TAG WINDOW TAG	1. INSTALL NEW SLATE ROOF AND UNDERLAYMENT AT TOWER, ADMINISTRATION BUILDING, & HIPPED ROOF TO NORTH OF ADMINISTRATION BUILDING TO REMAIN. REFER TO ARCH DRAWINGS FOR SPLASH BLOCKS 2. ALL MASONRY TO RECEIVE GENERAL CLEANING. REFER TO MASONRY CLEANING SPECS 3. REMOVE ALL EXISTING PARAPET FLASHING . REPOINT ALL SKYWARD FACING JOINTS IN PARAPET & INSTALL LEAD T'S AT ALL HORIZONTAL JOINTS IN EXISTING LIMESTONE COPING 1 ER101 EL-01-04 SOUTH ELEVATION - EXTERIOR RESTORATION 1/16" = 1'-0"

Northern Bus Garage - Preservation Treatment Approach - Elevations



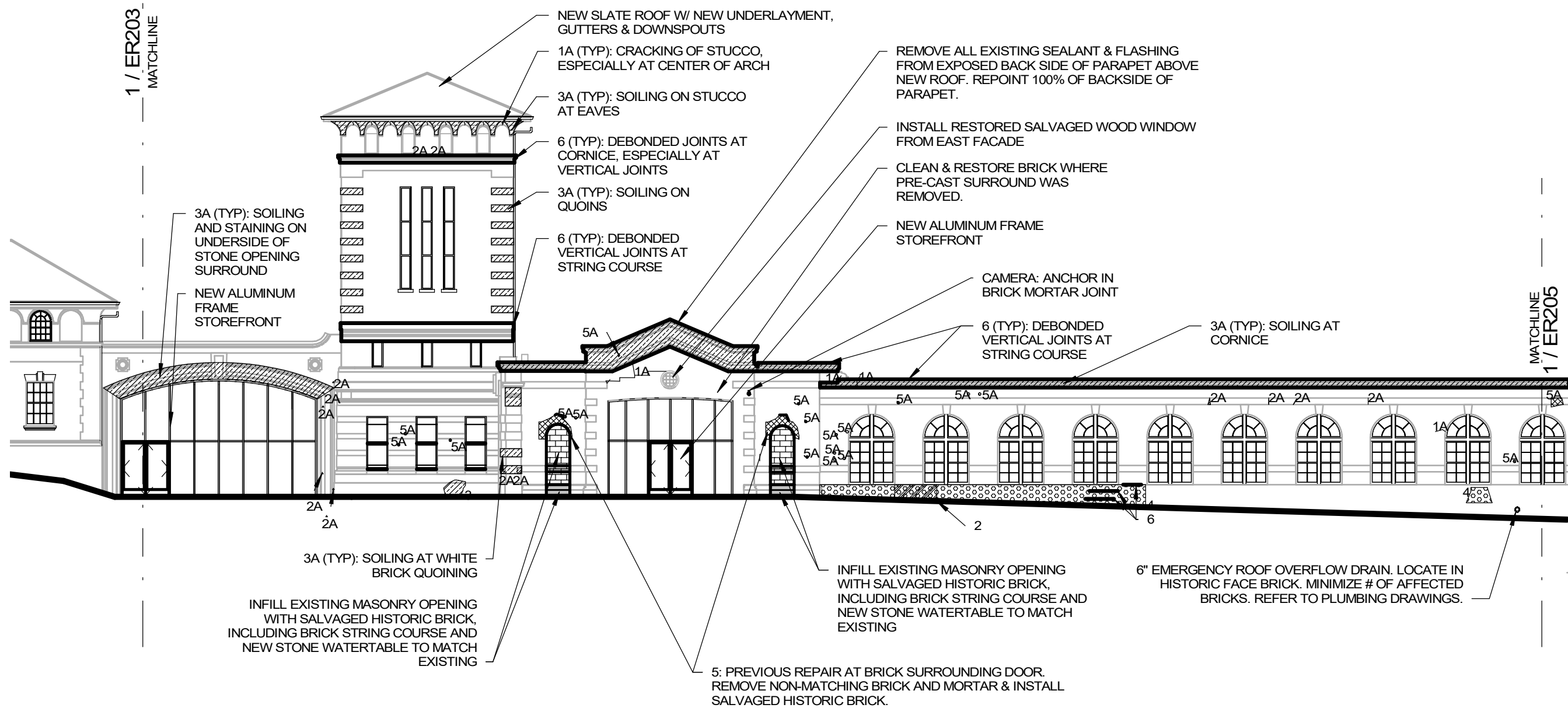
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Northern Bus Garage - Preservation Treatment Approach - Elevations



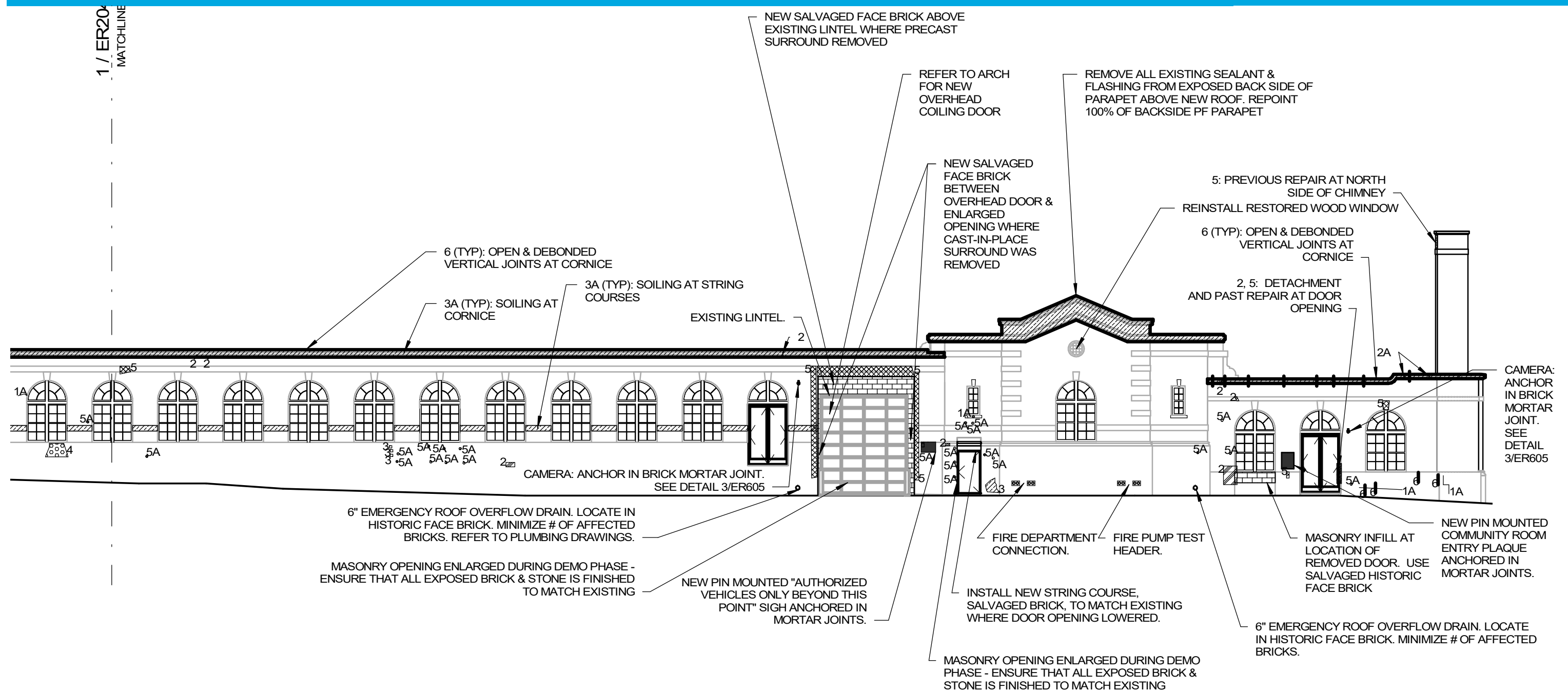
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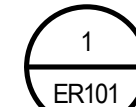
Northern Bus Garage - Preservation Treatment Approach - Elevations



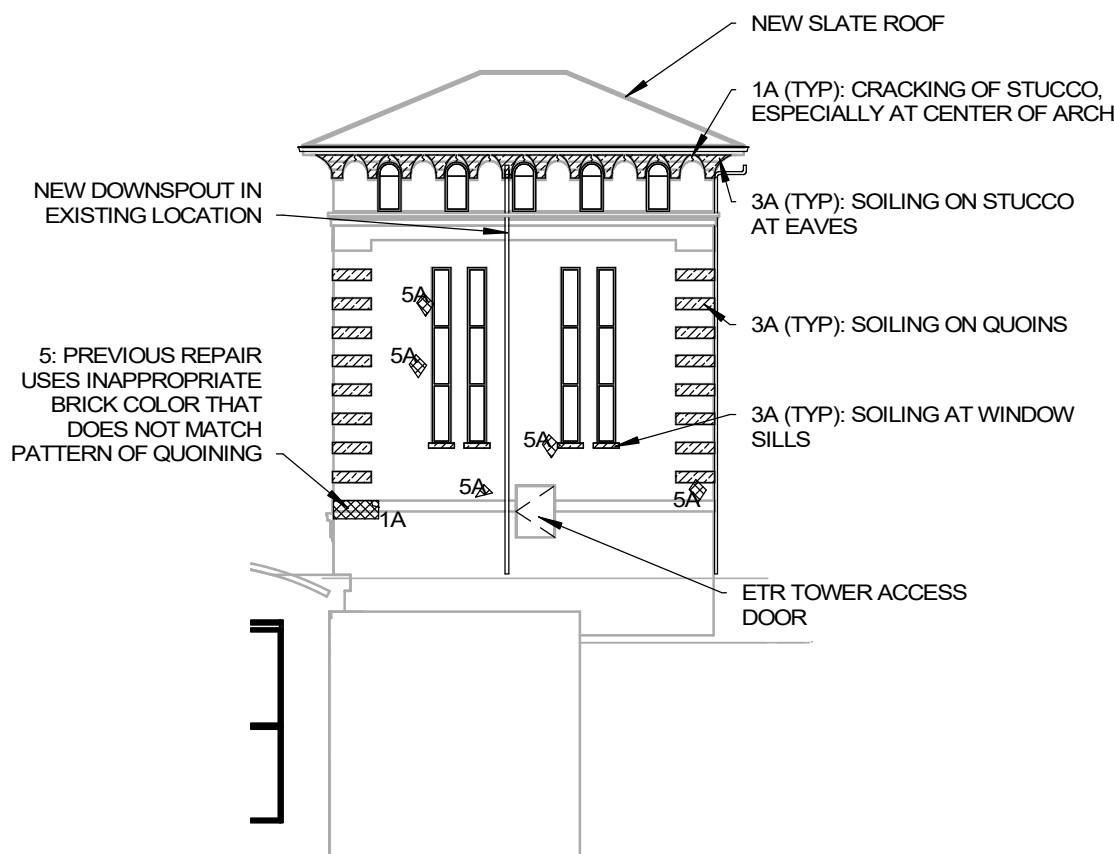
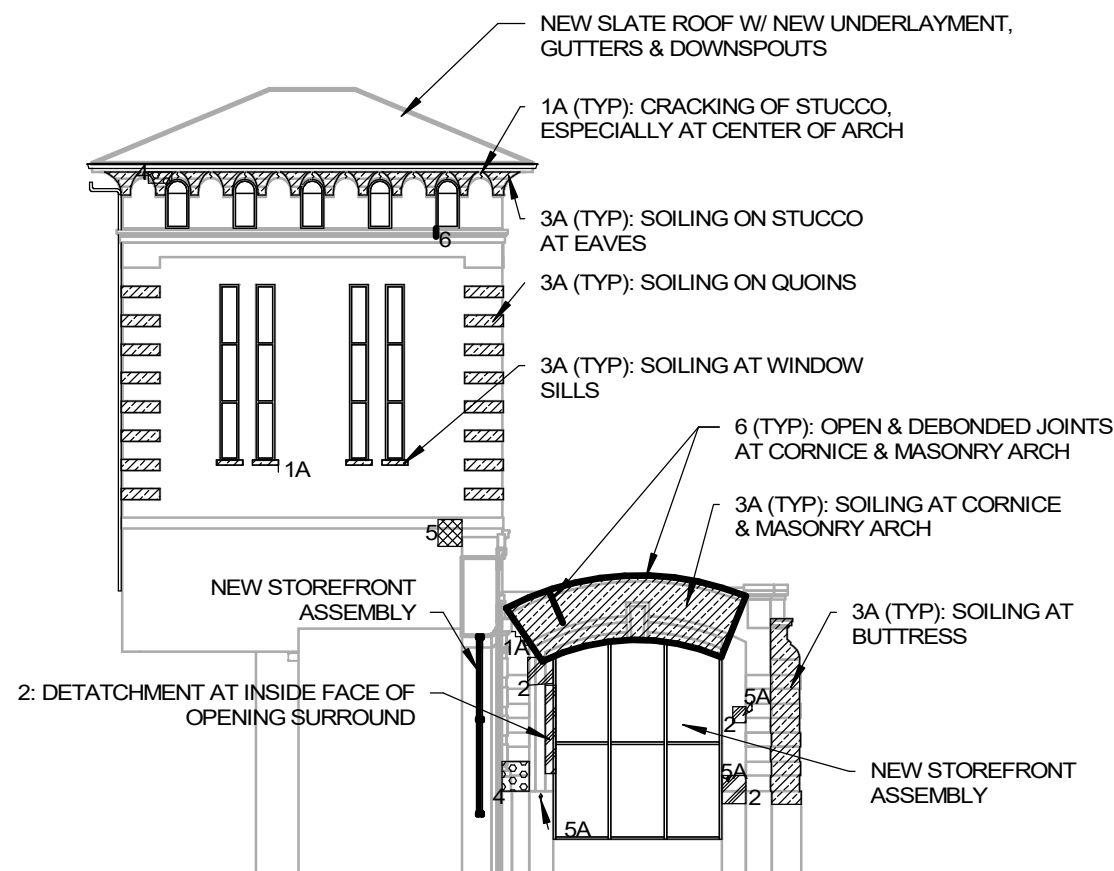
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Northern Bus Garage - Preservation Treatment Approach - Elevations



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REFER TO BRICK AND STONE REPAIR, REPOINTING AND CLEANING SPECIFICATIONS FOR TREATMENT PROCEDURES			

Northern Bus Garage - Preservation Treatment Approach - Elevations

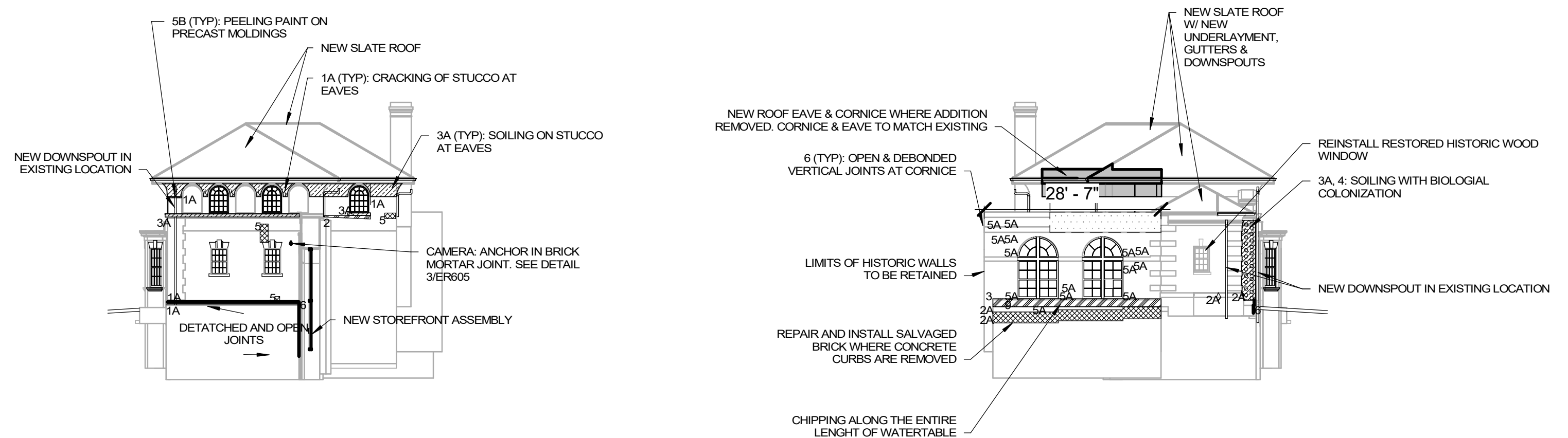


2 EL-04-02 TOWER NORTH ELEVATION - EXTERIOR RESTORATION
ER102 1/16" = 1'-0"

4 EL-01-02 TOWER SOUTH ELEVATION - EXTERIOR RESTORATION
ER102 1/16" = 1'-0"

SYMBOLS LEGEND			SHEET	NOTES
— EXISTING — NEW OR REINSTALLED SALVAGED HISTORIC FABRIC EXISTING CONDITIONS REQUIRING TREATMENT ⚡ 1 - REPAIR CRACKS AND DEFORMATION 1A - CRACK ▨ 2 - REPAIR DETACHMENT AND DISLOCATION 2A - CHIPPING ▩ 3 - CLEAN DISCOLORATION AND DEPOSITS 3A - SOILING ⦿ 4 - REMOVE BIOLOGICAL COLONIZATION	▨ 5 - ALTERATIONS/PREVIOUS REPAIRS. REMOVE NON-ORIGINAL BRICK OR STONE & INSTALL SALVAGED HISTORIC BRICK OR NEW STONE TO MATCH EXISTING. 5A - FERROUS METAL INSERTS — 6 - OPEN JOINT - - - 7 - DEBONDED JOINT ⦿ 8 - INACCESSIBLE PORTION OF FACADE DUE TO EXISTING CONSTRUCTION. BBB TO SURVEY AFTER DEMOLITION REFER TO BRICK AND STONE REPAIR, REPOINTING AND CLEANING SPECIFICATIONS FOR TREATMENT PROCEDURES	🏠 NEW ALUMINUM WRAPPED WOOD CORE WINDOW WITH IGU RE: ER-601 FOR WINDOW SCHEDULE 🏠 REINSTALLED RESTORED HISTORIC WOOD WINDOW RE: ER-601 FOR WINDOW SCHEDULE ER-01 NEW DOOR TAG FS01 WINDOW TAG	4	1. INSTALL NEW SLATE ROOF AND UNDERLAYMENT AT TOWER, ADMINISTRATION BUILDING, & HIPPED ROOF TO NORTH OF ADMINISTRATION BUILDING TO REMAIN. REFER TO ARCH DRAWINGS FOR SPLASH BLOCKS 2. ALL MASONRY TO RECEIVE GENERAL CLEANING. REFER TO MASONRY CLEANING SPECS 3. REMOVE ALL EXISTING PARAPET FLASHING . REPOINT ALL SKYWARD FACING JOINTS IN PARAPET & INSTALL LEAD T'S AT ALL HORIZONTAL JOINTS IN EXISTING LIMESTONE COPING

Northern Bus Garage - Preservation Treatment Approach - Elevations



1
ER102

EL-01-02 ADMIN SOUTH ELEVATION - EXTERIOR RESTORATION

1/16" = 1'-0"

2
ER102

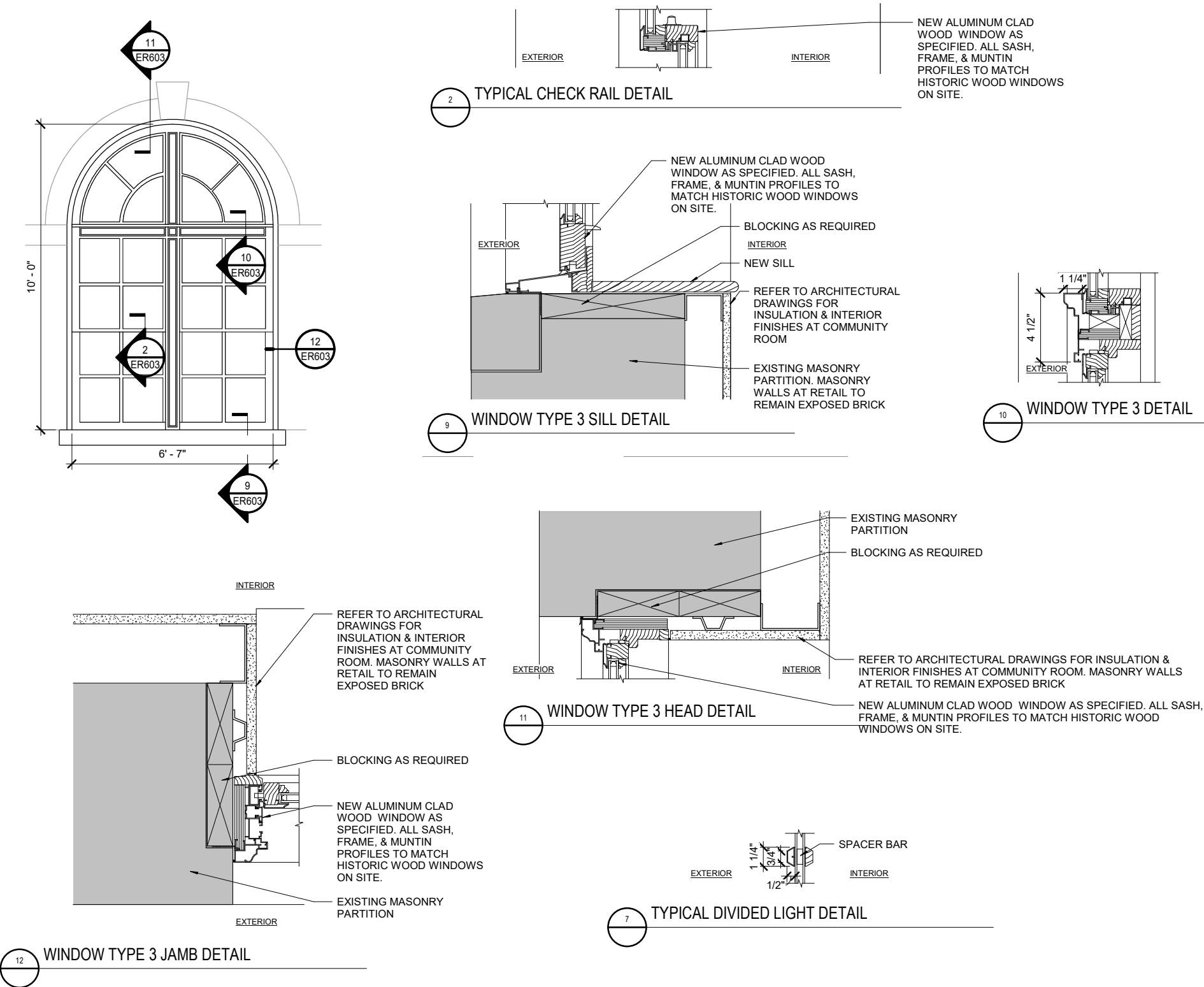
EL-04-02 ADMIN NORTH ELEVATION - EXTERIOR RESTORATION

1/16" = 1'-0"

SYMBOLS LEGEND			SHEET	NOTES
— EXISTING — NEW OR REINSTALLED SALVAGED HISTORIC FABRIC EXISTING CONDITIONS REQUIRING TREATMENT 1 - REPAIR CRACKS AND DEFORMATION 1A - CRACK 2 - REPAIR DETACHMENT AND DISLOCATION 2A - CHIPPING 3 - CLEAN DISCOLORATION AND DEPOSITS 3A - SOILING 4 - REMOVE BIOLOGICAL COLONIZATION	5 - ALTERATIONS/PREVIOUS REPAIRS. REMOVE NON-ORIGINAL BRICK OR STONE & INSTALL SALVAGED HISTORIC BRICK OR NEW STONE TO MATCH EXISTING. 5A - FERROUS METAL INSERTS 6 - OPEN JOINT 7 - DEBONDED JOINT 8 - INACCESSIBLE PORTION OF FACADE DUE TO EXISTING CONSTRUCTION. BBB TO SURVEY AFTER DEMOLITION REFER TO BRICK AND STONE REPAIR, REPOINTING AND CLEANING SPECIFICATIONS FOR TREATMENT PROCEDURES	NEW ALUMINUM WRAPPED WOOD CORE WINDOW WITH IGU RE: ER-601 FOR WINDOW SCHEDULE REINSTALLED RESTORED HISTORIC WOOD WINDOW RE: ER-601 FOR WINDOW SCHEDULE NEW DOOR TAG WINDOW TAG		1. INSTALL NEW SLATE ROOF AND UNDERLAYMENT AT TOWER, ADMINISTRATION BUILDING, & HIPPED ROOF TO NORTH OF ADMINISTRATION BUILDING TO REMAIN. REFER TO ARCH DRAWINGS FOR SPLASH BLOCKS 2. ALL MASONRY TO RECEIVE GENERAL CLEANING. REFER TO MASONRY CLEANING SPECS 3. REMOVE ALL EXISTING PARAPET FLASHING . REPOINT ALL SKYWARD FACING JOINTS IN PARAPET & INSTALL LEAD T'S AT ALL HORIZONTAL JOINTS IN EXISTING LIMESTONE COPING

Northern Bus Garage - Preservation Treatment Approach - Windows

Window Type 3

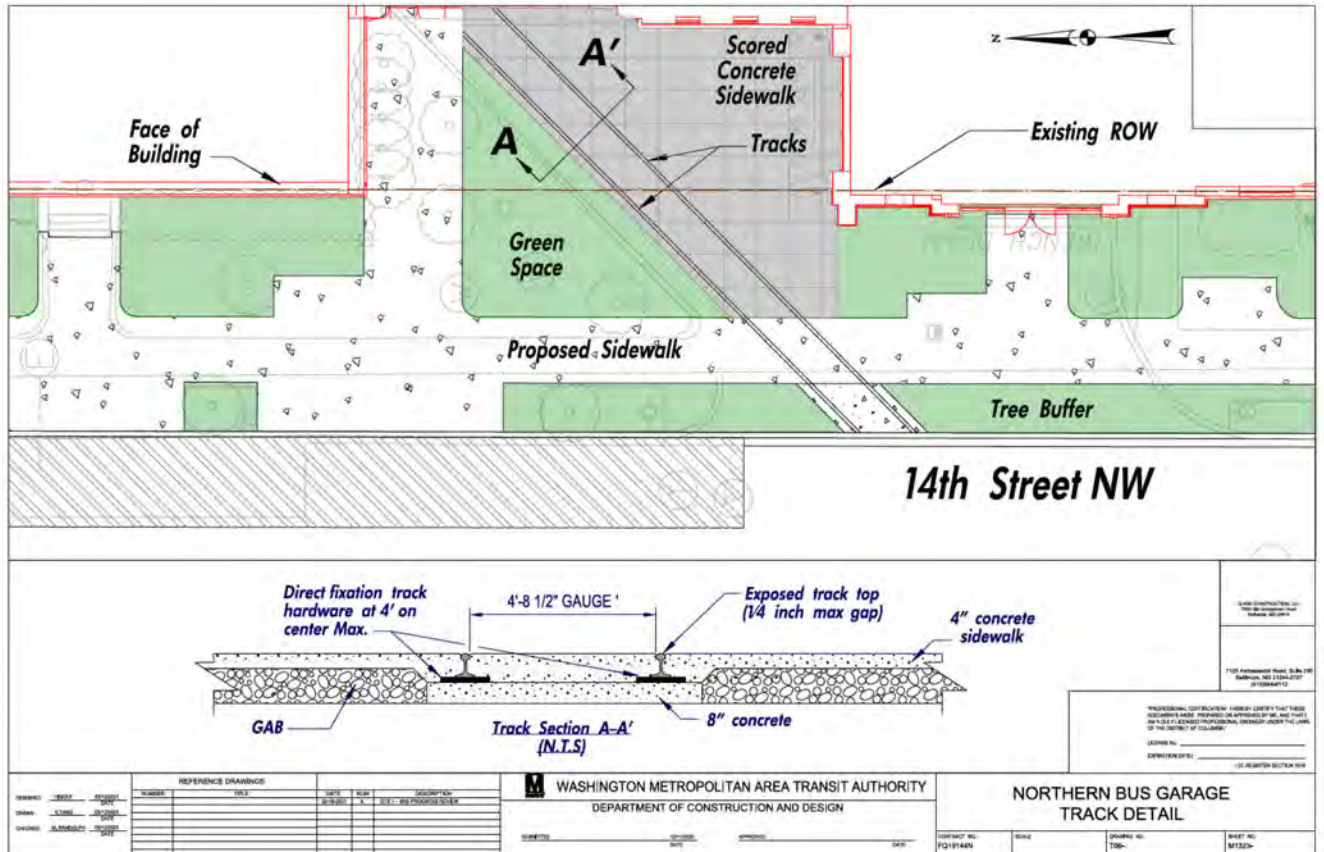


Remaining Original Window



All sash, frame, and muntin profiles to match the only remaining original window on site.

ATTACHMENT 5 **REPLICA STREETCAR TRACK INSTALLATION** **NORTHERN BUS GARAGE RENOVATION PROJECT** **MEMORANDUM OF AGREEMENT**



ATTACHMENT 6
INTERPRETIVE SIGNAGE EXHIBITS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT

To help mitigate the adverse effects associated with the renovation of the Northern Bus Garage, WMATA will develop and install interpretive signage exhibits as described below. This Scope of Work is organized into four sections: Background, Goals of the Exhibits, Tasks, and Deliverables.

Background:

WMATA plans to renovate the Northern Bus Garage, which is listed in the National Register of Historic Places (NRHP; NR# 13000290 listed April 5, 2013) and as a DC Historic Landmark (September 27, 2012) as the Capital Traction Company Decatur Street Car Barn. The renovation effort will remove portions of the historic fabric of the car barn, which will result in an adverse effect.

As part of mitigation efforts for the adverse effect, WMATA will be providing interpretive signage exhibits as explained below. Exterior signage shall focus on the historical and architectural characteristics (the building's history, architecture, and use) that qualify the building for listing in the NRHP. Interior exhibits will provide additional details about the Northern Bus Garage and related topics such as the role the garage played in the development of the surrounding neighborhood and community.

Goal of the Exhibits:

These interpretive signage exhibits will explain the historical and architectural characteristics that qualify the Northern Bus Garage for listing in the NRHP and connect the community and others to the significance of the Northern Bus Garage, especially the restored portions of the 1906 building along 14th Street, NW, by explaining the role the facility played in the development of transportation in Washington, D.C. and the surrounding neighborhood. Broader topics related to commercial development, social history, African American history, and other themes associated with the facility and the community will also be addressed in the community room exhibits to provide relevant information from a wider variety of perspectives. All exhibits will be designed to be compatible with their historic setting, both exterior and interior, and will not cause any damage to historic fabric.

Specific Tasks:

One to three exterior interpretive signage exhibits will be developed to explain the historical and architectural significance of the Northern Bus Garage. Text will be based upon the NRHP nomination for the Capital Traction Company Car Barn, the NRHP Multiple Property Documentation for Streetcar and Bus Resources of Washington, DC 1862-1962, and related research. One exhibit will be used to explain the replica streetcar tracks that will be installed in

front of the Northern Bus Garage along 14th Street, NW. Proposed signage locations will be identified through consultation with the DC SHPO. The primary location of exterior exhibits will be adjacent to the restored portions of the building on 14th Street, NW, but additional exhibits may also be installed adjacent to and/or on newly constructed portions of the Northern Bus Garage to provide additional interpretive opportunities and to enliven and break down the scale of the large new building. The appearance of the exterior exhibits, especially those along 14th Street, NW and within or adjacent to public space, will be based upon existing interpretive signage exhibits within the District of Columbia (e.g. the Neighborhood Heritage Trails installed by Cultural Tourism DC and/or the Kalorama Citizens Association signage – see examples below) to provide consistency throughout the city and make it easier for users to recognize the as interpretive signage exhibits. Any interpretive signage exhibits that may be attached to the newly constructed portions of the Northern Bus Garage may be designed with greater flexibility.





QTY: 1 (24"x42") EXTERIOR GRAPHIC FOR PEDESTAL

SCALE: 3/4"=1'-0"

MATERIAL: EXTERIOR GRADE CHPL GRAPHIC FOR
SURFACE MOUNT ON PEDESTAL



Up to five interior interpretive signage exhibits will be installed in the 1600 sq. ft. community room which, for reference, has a finished wall height of 13 ft. 8 in. The interior exhibits shall focus on broader historical themes that relate to the development of the Northern Bus Garage and the surrounding neighborhood and community, including African-American History and related topics. The content will be determined in consultation with the DC SHPO and the consulting parties; the final number of exhibits will be determined in consultation with FTA and DC SHPO. The appearance of the interior signs should relate to that of the exterior signage exhibits, but more flexibility can be applied to the design of the interior exhibits provided they do not damage any historic interior fabric. For example, three-dimensional artifacts, audio/visual samples, personal memorabilia, and other creative methods of interpretation may be considered for incorporation into the designs.

Deliverables:

1. In accordance the Section 106 Memorandum of Agreement (MOA) the contractor hired by WMATA will solicit initial input from DC SHPO and the consulting parties regarding the topics they would like to have included in the interpretive signage exhibits. As appropriate to fully develop the topics, the contractor will conduct additional outreach to individuals or groups that are knowledgeable about community history.
2. Based upon the feedback provided in Deliverable 1 above, the contractor will research historical themes using primary and secondary sources. The contractor will conduct a minimum of three oral history interviews with relevant community members and people historically associated with the Northern Bus Garage facility. Oral histories shall be transcribed and transcriptions shall be provided to consulting parties upon request.

3. The contractor will develop draft text and graphics for interpretive signage exhibits, along with recommendations for the locations, size, and related details in keeping with the existing interpretive signage examples cited above.
4. Full color drafts of all interpretive signage exhibits will be provided in digital format to the consulting parties and DC SHPO for review and comment.
5. The contractor shall submit digital versions of the full color drafts and all consulting party comments to the DC SHPO for final review. The contractor will consult further with the DC SHPO to finalize all aspects of the interpretive signage exhibits including but not limited to text, images, location, size and design. Once approved by DC SHPO in writing, the contractor shall prepare final plans and a cost estimate for fabrication and installation of all interpretive signage exhibits.
6. WMATA shall fabricate and install all the interpretive signage exhibits within thirty days of issuance of the building occupancy permit, in accordance with the Section 106 MOA.

APPENDIX 9: SECTION 4(F) EVALUATION

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Northern Bus Garage

Section 4f Evaluation

Prepared for the Washington Area Metropolitan Transit Authority
(WMATA)

Prepared by EHT Tracerics, Inc. and HNTB
December 2021

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Table of Contents

1.0	Introduction.....	1
2.0	Legal and Regulatory Requirements	2
3.0	Description of Proposed Action.....	2
4.0	Section 4(f) Resources.....	3
4.1	Architectural Resources and Historic Sites.....	3
4.2	The Capital Traction Company Car Barn	3
4.3	Archaeological Sites	5
4.4	Public Parks, Recreation Areas, and Wildlife or Waterfowl Refuges	5
5.0	Section 4(f) Evaluation.....	5
5.1	Section 4(f) Use	6
5.2	Constructive Use.....	6
5.3	<i>De Minimis</i> Impact.....	6
6.0	Property Identification/Use Assessment	6
6.1	Use	6
6.2	Constructive Use.....	7
6.3	<i>De Minimis</i> Impact.....	7
7.0	Avoidance Alternatives	7
7.1	Development of Alternatives.....	8
7.2	No Action Alternative	9
7.3	Walter Reed Army Medical Center Site.....	9
7.4	Armed Forces Retirement Home Site.....	11
8.0	Planning Undertaken to Minimize Harm	13
9.0	Coordination and Consultation	14
10.0	Section 4(f) Determination	16

List of Figures

Figure 1-1: Detail of U.S. Topographic Map, Washington, DC West Quadrant, 2019.....1

Figure 4-1: Area of Potential Effects (APE) for Historic Resources.....4

Figure 4-2: Location of Capital Traction Car Barn in relation to the Northern Bus Garage.....5

Figure 7-1: Avoidance Alternative at Walter Reed Army Medical Center Site10

Figure 7-2: Avoidance Alternative at Armed Forces Retirement Home Site12

Table 7-1: Avoidance Alternative Summary Analysis13

Table 8-1: Mitigation for Impacts to Section 4(f) Resources.....14

List of Tables

Table 7-1: Avoidance Alternative Summary Analysis13

Table 8-1: Mitigation for Impacts to Section 4(f) Resources14

1.0 INTRODUCTION

Section 4(f) of the U.S. Department of Transportation Act of 1966 states that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”¹ This evaluation assesses the potential for improvements to the Northern Bus Garage to use publicly owned parklands, publicly owned recreation areas, publicly owned wildlife and waterfowl refuges, and historic properties (whether publicly or privately owned) eligible for protection under the provisions of Section 4(f) of the U.S. Department of Transportation Act of 1966 (commonly referred to as Section 4(f)). This Section 4(f) evaluation has been prepared in accordance with the Federal Transit Administration (FTA), Federal Highway Administration (FHWA), and Federal Railroad Administration (FRA) regulations for Section 4(f) compliance as codified in 23 CFR Part 774. In addition, this analysis also relied on FHWA’s 2012 Section 4(f) Policy Paper, which supplements the Section 4(f) regulations and has been adopted by FTA.

The Northern Bus Garage, known also as the Northern Division Bus Garage, is located on Fourteenth Street, NW, between Buchanan Street, NW, and Decatur Street, NW, in Washington, DC (Figure 1-1).

Figure 1-1: Detail of U.S. Topographic Map, Washington, DC West Quadrant, 2019



¹ 49 USC 303(a)

2.0 LEGAL AND REGULATORY REQUIREMENTS

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 U.S.C. § 303), as amended, applies to the U.S. Department of Transportation (U.S. DOT) and protects publicly owned parks and recreation areas; publicly owned wildlife and waterfowl refuges; and historic sites of national, state, or local significance (whether publicly or privately owned). Section 4(f) prohibits the FTA and other U.S. DOT agencies from using land from publicly owned parks, recreation areas (including recreational trails), wildlife and waterfowl refuges, or public and private historic properties, unless there is no feasible and prudent alternative to that use and the action includes all possible planning to minimize harm to the property resulting from such a use, with some limited exceptions.

Section 4(f) does not apply to parks, recreation areas, and wildlife and waterfowl refuges if those properties are privately owned. However, Section 4(f) does apply to all historic properties that are listed or eligible for listing in the National Register of Historic Places (NRHP), regardless of whether they are publicly or privately owned. Section 4(f) also applies to archaeological sites on or eligible for inclusion in the NRHP and that warrant preservation in place.

Section 4(f) also provides specific consultation roles for the owners and/or managers of Section 4(f) properties as officials with jurisdiction. For historic properties listed in or eligible for listing in the NRHP, the State Historic Preservation Officer (SHPO) is the official with jurisdiction and fulfills their role under Section 4(f) through their role in the consultation process required by Section 106 of the National Historic Preservation Act. Depending on the specific type of resource and the consultation process involved under Section 106, the Advisory Council on Historic Preservation (ACHP) and/or the National Park Service may also serve as officials with jurisdiction under Section 4(f).

3.0 DESCRIPTION OF PROPOSED ACTION

The proposed project is the FTA-funded WMATA replacement of the Northern Bus Garage, located at 4615 Fourteenth Street, NW. A portion of the Northern Bus Garage consists of the former Capital Traction Company Car Barn, which has been listed in the NRHP. Current operational and programmatic challenges require facility improvements in order to meet WMATA's goals of modernization, sustainability, increased community integration, and flexibility for the needs for both electric and diesel buses. Replacement is required to address the following needs:

- Efficient and safe vehicle circulation for standard and articulated buses;
- Adequate height clearance for newer diesel buses and future overhead charging for electric buses;
- Modernization of the existing garage with updated equipment;
- Reorganization of the existing footprint to expand the number of maintenance bays and bus storage parking to meet current and future needs;
- Incorporation of a retail element for community integration, pending design decision by WMATA;
- Reduction of operating costs through sustainable strategies and a potential solar array;
- Air quality in the garage must meet modern environmental and safety standards (100% filtered exhaust air commitment, which requires large amounts of indoor mechanical space);
- Expanded vehicle circulation inside the facility to meet safety requirements; and
- The need for repairing failing concrete elements and improving natural lighting while engaging the community through its architectural design (there are no windows facing the streets except for those along the historic Fourteenth Street façade and structural considerations are required to support the Fourteenth Street facade during and after construction).

4.0 SECTION 4(F) RESOURCES

Under Section 4(f), resources in any study area can include existing and planned publicly owned parks, as well as historic properties listed in or eligible for the NRHP.

An analysis to identify cultural resources within the project's Area of Potential Effects (APE) was undertaken in accordance with Section 106 of the National Historic Preservation Act. The APE was developed in consultation with the District of Columbia SHPO (DC SHPO). The APE for historic resources includes all areas directly or indirectly affected by the proposed project. Direct impacts include considerations such as visual impacts and sound disturbance that could impact areas around the Northern Bus Garage. The APE for archaeology includes all areas of anticipated project-related ground disturbance (e.g., excavation, grading, cutting, and filling, and utility installation activities as well as activities undertaken during construction that may result in unintentional soil compaction, erosion, or other disturbance). **Figure 4-1** shows the APE for aboveground historic properties. The Archaeological APE is confined to the footprint of any sub-grade disturbance. According to WMATA's Section 106 consultation report, locations of planned sub-grade activities have been previously disturbed, and therefore, no archaeological resources are present within the APE.

4.1 Architectural Resources and Historic Sites

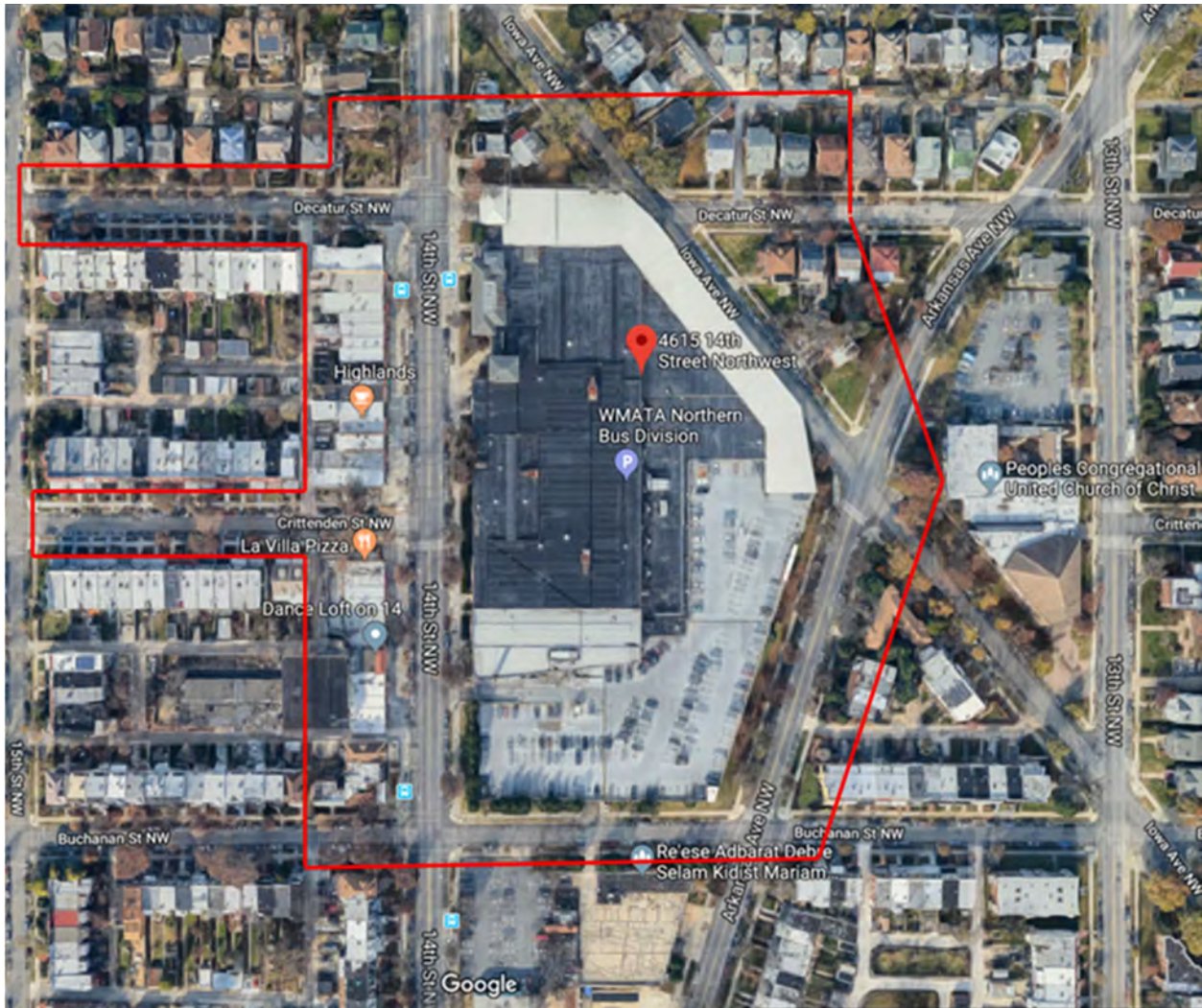
The Section 106 APE for aboveground historic resources for this undertaking includes both physical and visual impacts, with the APE boundary defined as the distance from which a person could see the proposed undertaking. Most of the APE is confined to properties located along both sides of Iowa Avenue, NW, Fourteenth Street, NW, and Buchanan Street, NW. All three of these streets are adjacent to the project site. The APE boundary also includes additional blocks of Crittenden and Decatur Streets, NW, which also contain unobstructed views from the middle of these streets.

4.2 The Capital Traction Company Car Barn

The study area contains one designated historic property, the Capital Traction Company Car Barn, which is now part of the Northern Bus Garage located at 4615 Fourteenth Street, NW. The building was originally constructed to house street cars. Since 1926, the building has been used as a bus garage. The building, owned by WMATA, was listed in the NRHP (NR#13000290) on May 22, 2013. The local architectural firm of Wood, Donn and Deming designed the Decatur Street Car Barn in the Italian Renaissance style. Constructed for the Capital Traction Company in 1906-1907, the 537-foot-by-208-foot masonry building features decorative stone detailing exhibited in its keystones, quoins, and belt courses. The Car Barn's most prominent façade resembles a sixteenth century Italian villa featuring a prominent tower and arcaded streetcar openings that face Fourteenth Street.

89 The site has changed over the years. The original Car Barn occupied approximately half of its site. Bus-related
90 modifications began as early as 1926 with an addition constructed onto the east side of the building to

Figure 4-1: Area of Potential Effects (APE) for Historic Resources

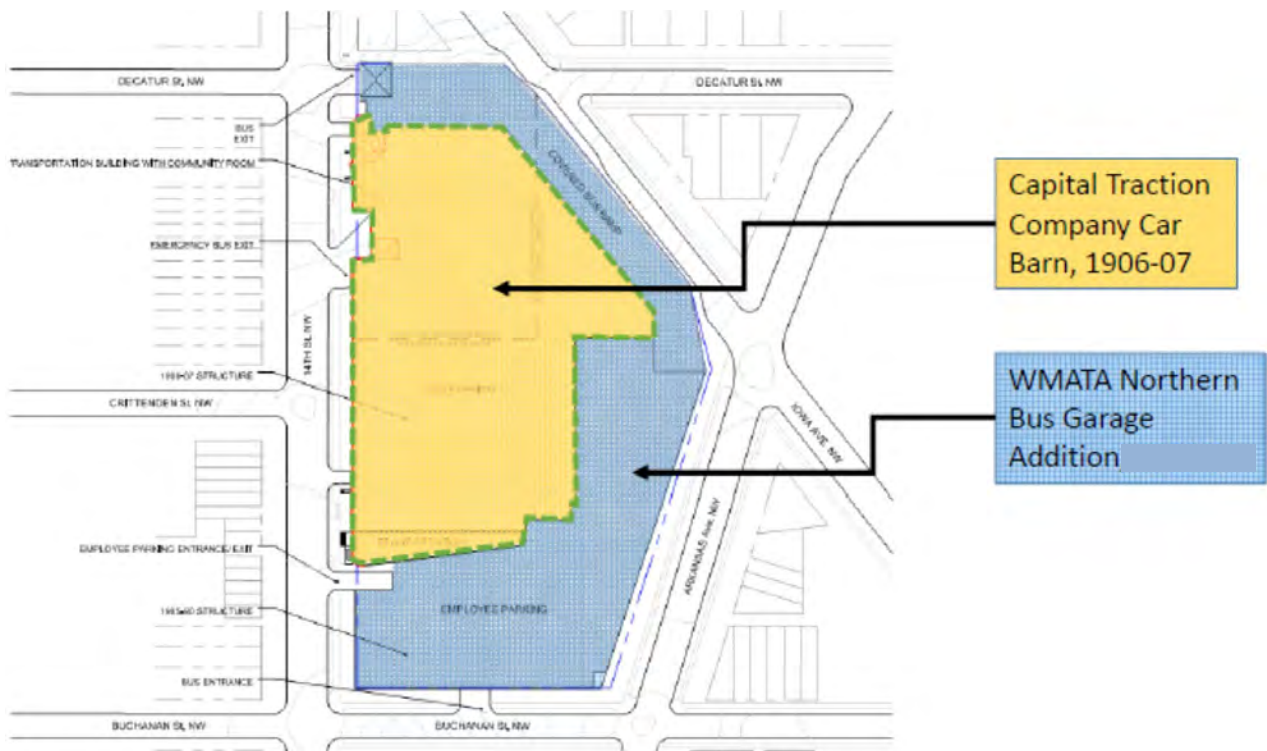


91 accommodate bus storage. By 1959, the entire building was converted to a bus garage. WMATA, which
92 acquired ownership of the building in 1967, significantly expanded the facility between 1989-1992 with the
93 construction of a large, one-story bus maintenance facility and storage area. The facility renovation also
94 resulted in the replacement of most of the roof of the original building, removal of historic fabric from the
95 interior of the building, and the closure of Decatur Street to provide additional bus egress. The cumulative
96 result of renovations encapsulated the historic car barn in new construction. Despite the additions, the
97 historic Car Barn still retained sufficient integrity to be listed in the NRHP in 2013. **Figure 4-2** shows the
98 location of the Capital Traction Company Car Barn in relation to the Northern Bus Garage.

4.3 Archaeological Sites

No archaeological sites have been previously documented within the APE. The Capital Traction Company Car Barn was constructed with a lower level that resulted in below grade construction that disturbed any potential archaeological resources within the study area. There will be no planned additional ground disturbance in areas that have not been previously disturbed. Therefore, no archaeological resources are present within the archaeological APE.

Figure 4-2: Location of Capital Traction Car Barn in relation to the Northern Bus Garage



4.4 Public Parks, Recreation Areas, and Wildlife or Waterfowl Refuges

No publicly owned parks, recreation areas, or wildlife or waterfowl refuges are located within the study area.

5.0 SECTION 4(F) EVALUATION

There are several types of Section 4(f) "uses," including when land is permanently incorporated into a transportation facility, when land is temporary incorporated into a transportation facility and that occupancy is adverse in terms of Section 4(f)'s preservation purpose, when land is constructively used, or when there is a *de minimis* use of the land. There are specific applicability provisions and exceptions in the FTA regulation as well, such as "temporary occupancies," that are not applicable in this situation and will not be addressed.

5.1 Section 4(f) Use

Pursuant to 23 CFR 774.17, a use includes the partial or full acquisition and incorporation of the Section 4(f) resource into the transportation facility. A temporary occupancy of a Section 4(f) resource also constitutes a “use” if that occupancy is adverse in terms of Section 4(f)’s preservation purpose. FTA has defined when a temporary occupancy does not constitute a use in its regulation at 23 CFR 774.13(d).

5.2 Constructive Use

Constructive use occurs when proximity effects of the transportation project, such as noise, vibration, air quality, or visual impacts, are so great that the use of the property is substantially impaired. Such substantial impairment would occur when the proximity impacts to Section 4(f) resources are sufficiently serious that the value of the resource, in terms of its prior significance and enjoyment, are substantially reduced or lost. This threshold of substantial impairment is a high one and is reserved for the most severe proximity effects. Examples provided in the regulations implementing Section 4(f) involve the following scenarios:

- The projected noise level increase from the project would substantially impair the use and enjoyment of a resource protected by Section 4(f), such as enjoyment of a historic site where a quiet setting is a generally recognized feature or attribute of the site’s significance;
- The proximity of the proposed project would impair the aesthetic quality of a resource, where aesthetic qualities are considered important contributing elements to the value of a resource, such as d to visual or aesthetic qualities that obstructs or eliminates the primary views of an architecturally noteworthy historical building;
- Where a project results in a restriction of access that substantially diminishes the utility of a significant publicly owned park, recreation area, or a historic site; or
- A vibration impact from the operation of a project would substantially impair the use of a Section 4(f) resource, such as projected vibration levels from a rail transit project great enough to affect the structural integrity of a historic building.

5.3 De Minimis Impact

If FTA determines that the use of the Section 4(f) property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a *de minimis* impact, FTA may make a *de minimis* impact determination (23 CFR 774.3(b)). For a *de minimis* impact determination, the consulting parties identified in accordance with the Section 106 consultation process (discussed below) must be consulted and FTA must receive written concurrence from the SHPO and from the ACHP, if the latter is participating in the consultation process, in a finding of “no adverse effect” or “no historic properties affected” in accordance with the Section 106 Consultation process set forth in 36 CFR part 800.

6.0 PROPERTY IDENTIFICATION/USE ASSESSMENT

FTA’s Section 4(f) regulation requires an assessment of whether a project will result in a use, constructive use, or *de minimis* use of Section 4(f) properties. The following assesses the potential for those types of uses.

6.1 Use

The project will require the demolition and removal of historic features as well as construction of a new

facility on one historic property, the Capital Traction Company Car Barn, which resulted in an adverse effect finding under Section 106. Therefore, the project constitutes a use under Section 4(f). An evaluation of potential avoidance alternatives is included in Section 7.0 below, and all possible planning to minimize harm is discussed in Section 8.0 below.

6.2 Constructive Use

Historic Properties

Because the project will require the use of the historic Car Barn facility, there is no need to evaluate whether the project would result in the “constructive use” of that facility.

6.3 *De Minimis* Impact

Historic Properties

The intended use of the Capital Traction Company Car Barn required to address WMATA’s program needs for the Northern Bus Garage will result in a significant removal of historic materials that resulted in a finding of “adverse effect” under Section 106 of the National Historic Preservation Act. As such, the project will not result in a *de minimis* impact as that term is defined by Section 4(f).

7.0 AVOIDANCE ALTERNATIVES

When a proposed project will result in a Section 4(f) use of a protected resource that is not *de minimis*, FTA is required to determine whether a feasible and prudent avoidance alternative exists. If no prudent and feasible avoidance alternative exists, the project must include all possible planning to minimize harm to the site (49 U.S.C. 303(c)(2)). If all project alternatives evaluated will use one or more Section 4(f) resources, FTA must select the project alternative that causes the least overall harm in light of the statute’s preservation purpose.

FTA’s Section 4(f) regulation defines a feasible and prudent avoidance alternative as one that avoids using Section 4(f) properties and does not cause other “severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property” (23 CFR 774.17). In consideration of the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation purpose of the statute. An alternative is not feasible or prudent if:

1. It cannot be built as a matter of sound engineering judgment;
2. It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
3. It results in unacceptable safety or operational problems;
4. After reasonable mitigation, it still causes:
 - a. Severe social, economic, or environmental impacts;
 - b. Severe disruption to established communities;
 - c. Severe disproportionate impacts to minority or low-income populations; or
 - d. Severe impacts to environmental resources protected under other Federal statutes;
5. It results in additional construction, maintenance, or operational costs of an extraordinary

magnitude;

6. It causes other unique problems or unusual factors; or

7. It involves multiple factors in paragraphs (2) through (6), that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

7.1 Development of Alternatives

The planning process for facility upgrades to the Northern Bus Garage included both the *2015 Metrobus Facilities Plan Study* and the *2018 Metrobus Facility Plan*. These studies reviewed the needs and current capacity constraints of existing bus operating and maintenance facilities, assessed the physical conditions of garages, identified shortcomings, and addressed recommendations for capital improvements. Recommendations addressed short, medium, and long-term investment needs based on projected changes to fleet size, technology, composition, service growth, and plans for structural and/or locational changes to operating divisions.

The Northern Bus Garage, located on Fourteenth Street, NW, between Buchanan Street, NW, and Decatur Street, NW, in Washington, DC, previously operated as one of the four WMATA facilities that stores and maintains articulated buses. These types of facilities serve as a WMATA operating base, performing day-to-day maintenance functions, although heavy maintenance functions were not conducted at Northern Bus Garage at the time it ceased operations. The Northern Bus Garage has a current capacity for 175 total buses that can accommodate 155 standard buses and 20 articulated buses, including a total of 13 maintenance bays, two of which were used for articulated buses.

For the Northern Bus Garage to fulfill its mission and meet safety protocols upon restarting operations, WMATA has identified the following major project needs:

1. Service bays to accommodate articulated buses, which would allow the division to better serve nearby downtown routes;
2. Structural column spacing to support 14' minimum stall width;
3. Place service lanes on level paving so as to minimize the risk of rolling buses;
4. Minimize the number of access points along the perimeter to allow for proper access control;
5. Design the facility with counter-clockwise circulation for better operators' visibility while turning;
6. Modifications necessary for accommodating the use of electric propulsion buses; and
7. Minimize the number of level changes within bus circulation and parking areas.

These needs are generally documented in WMATA's *2015 Metrobus Facilities Plan Study* "Technical Memo 2 – Identification of Needs" (August 2016) and in WMATA's *2018 Metrobus Facility Plan*. WMATA's goals for rehabilitation of the Northern Bus Garage will better facilitate its needs for modernization, sustainability, increased community integration, and flexibility for use by both electric buses and diesel buses.

FTA is required to consider alternatives that completely avoid a "use" of Section 4(f) properties. WMATA has conducted analysis to identify potential *feasible and prudent avoidance alternatives*. Three such potential alternatives were identified:

1. No Action Alternative (the no-build alternative);
2. Relocating Northern Bus Garage to the grounds of Walter Reed Army Medical Center; and
3. Relocating Northern Bus Garage to the grounds of the Armed Forces Retirement Home.

Given the challenges associated with moving the bus facility to a site further removed from the existing bus

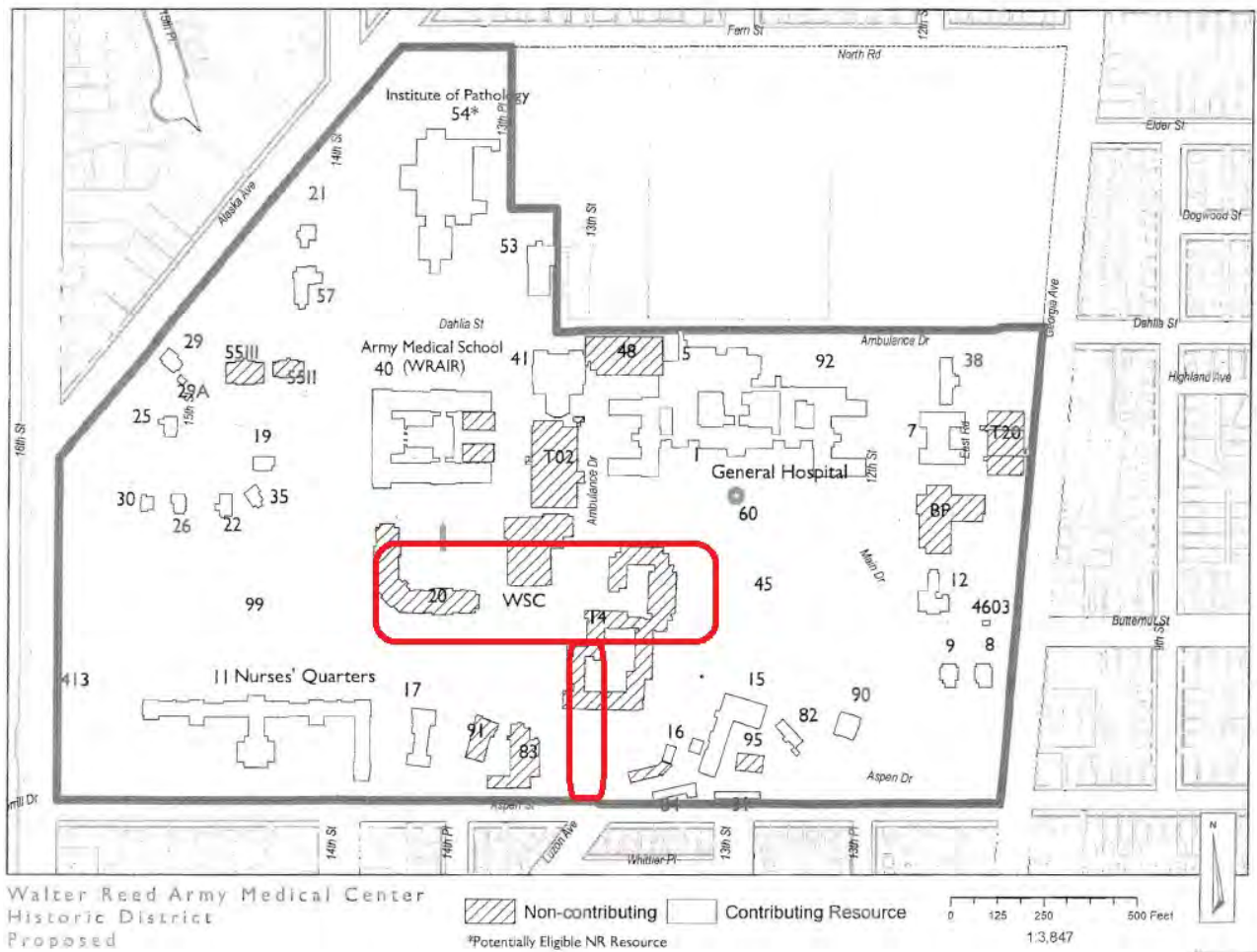
routes, WMATA also evaluated the area surrounding the existing Northern Bus Garage location for other potential avoidance alternative sites. The areas nearer to the existing Northern Bus Garage, however, are highly developed, consisting primarily of either public parks or potentially historic residential and commercial buildings. Siting a facility large enough to accommodate WMATA's needs any closer than the potential avoidance alternatives detailed below would require either the use of a public park or demolition of buildings potentially eligible for the National Register of Historic Places, making that alternative not an avoidance alternative, as required by Section 4(f).

7.2 No Action Alternative

The No Action Alternative, which would involve the continuation of re-routing of bus service to other bus facilities, would not result in a use of any Section 4(f) properties, including the Capital Traction Company Car Barn, which would be retained in its current state. The No Action Alternative would not provide any necessary changes to the Northern Bus Garage needed to accommodate bus capacity improvements nor improve the physical and environmental conditions of the building. Thus, the No Action Alternative will not meet any aspect of the project's needs. Continuing to re-distribute bus service previously housed at Northern Bus Garage to other WMATA bus divisions rather than rehabilitating and reopening Northern Bus Garage at its current location would require the continued extended travel distance for approximately two dozen bus routes each day (entailing hundreds of bus trips throughout the day) through dense, residential neighborhoods, leading to noise, traffic congestion, and vibration over much larger areas than if those bus routes only needed to travel to the Northern Bus Garage facility, especially since travel to and from established routes would be at a higher average speed given that the buses would not be making stops along the path of travel. Cumulatively, the effect of longer distances for hundreds of trips each day over many years would result in the types of "severe social, economic, or environmental impacts" that cause an avoidance alternative to not be considered "prudent" under Section 4(f). Moreover, this alternative would severely limit the ability of WMATA to implement electric bus service, given the need for a location for battery recharging near the destinations being served. Thus, because the No Action Alternative would cause severe social, economic, environmental impacts; would result in unacceptable operational problems; and would not meet any aspect of the project's needs, it cannot be identified as a feasible and prudent avoidance alternative.

7.3 Walter Reed Army Medical Center Site

The 2015 *Metrobus Facilities Plan Study* investigated the feasibility of relocating Northern Bus Garage to the grounds of Walter Reed Army Medical Center at 6900 Georgia Ave., NW, Washington, DC. This alternative would result in the construction of a new facility at a new site to accommodate the project's needs. Although the Walter Reed Army Medical Center is listed as a historic district in the NRHP, there are a number of non-contributing structures in the center of the site (see shaded structures with red overlay of a potential bus facility and access road in Figure 7-1), including the former enlisted barracks, just to the north of where Luzon Ave., NW, intersects with Aspen St., NW. Demolition of several of those structures would provide sufficient space for a new bus facility, with a sufficient buffer from contributing structures on the site to ensure that proximity impacts from the facility would not cause a constructive use.

Figure 7-1: Avoidance Alternative at Walter Reed Army Medical Center Site

Given its location in the center of the site, demolition of only the former enlisted barracks, the largest non-contributing structure on the site, would be necessary to provide space for WMATA's needs. The former enlisted barracks are currently used as affordable housing for seniors and formerly homeless veterans, with approximately 200 units. See Press Release, Executive Office of the Mayor, District of Columbia, July 16, 2018. Thus, choosing this location would require demolition of approximately 200 affordable housing units and displacement of its residents, which would constitute "[s]evere social . . . impacts," "[s]evere disruption to established communities," and "severe disproportionate impacts to . . . low income populations," factors that make an avoidance alternative not prudent per 23 CFR 774.17.

Relocating Northern Bus Garage to the Walter Reed Army Medical Center site rather than rehabilitating and reopening it would also require the continued extended travel distance for approximately two dozen bus routes each day (entailing hundreds of bus trips throughout the day) through dense, residential neighborhoods, leading to noise, traffic congestion, and vibration over much larger areas than if those bus routes only needed to travel to the Northern Bus Garage facility, especially since travel to and from established routes would be at a higher average speed given that the buses would not be making stops along the path of travel. Cumulatively, the effect of longer distances for hundreds of trips each day over many years would result in the types of "severe social, economic, or environmental impacts" that cause an

avoidance alternative to not be considered “prudent” under Section 4(f). Moreover, this location would severely limit the ability of WMATA to implement electric bus service, given the need for a location for battery recharging near the destinations being served. The *2018 Metrobus Facilities Plan* confirmed that the location and capacity of the Northern Bus Garage relate directly to the operation of major bus lines that serve high-capacity downtown bus routes, particularly the 50s line, which operates along Fourteenth Street. Relocating these operations away at a great distance would result in exactly the type of “unacceptable . . . operational problems” envisioned by the Section 4(f) regulation, given the buses it serves from high demand routes in central DC. The *2015 Metrobus Facilities Plan Study* estimated that relocating facility operations to this site would also increase annual operating costs by 47%, proving too expensive to operate, especially when multiplied over decades of anticipated service. See *2015 Metrobus Facilities Plan Study* (Technical Memo #4, August 2016, Page 5).

Thus, because the Walter Reed Army Medical Center alternative would cause severe social, economic, environmental impacts; would cause severe disruption to established communities; would create severe disproportionate impacts to a low-income population; would result in unacceptable operational problems; and would result in additional maintenance and operational costs of an extraordinary magnitude, this alternative would not be a feasible and prudent avoidance alternative.

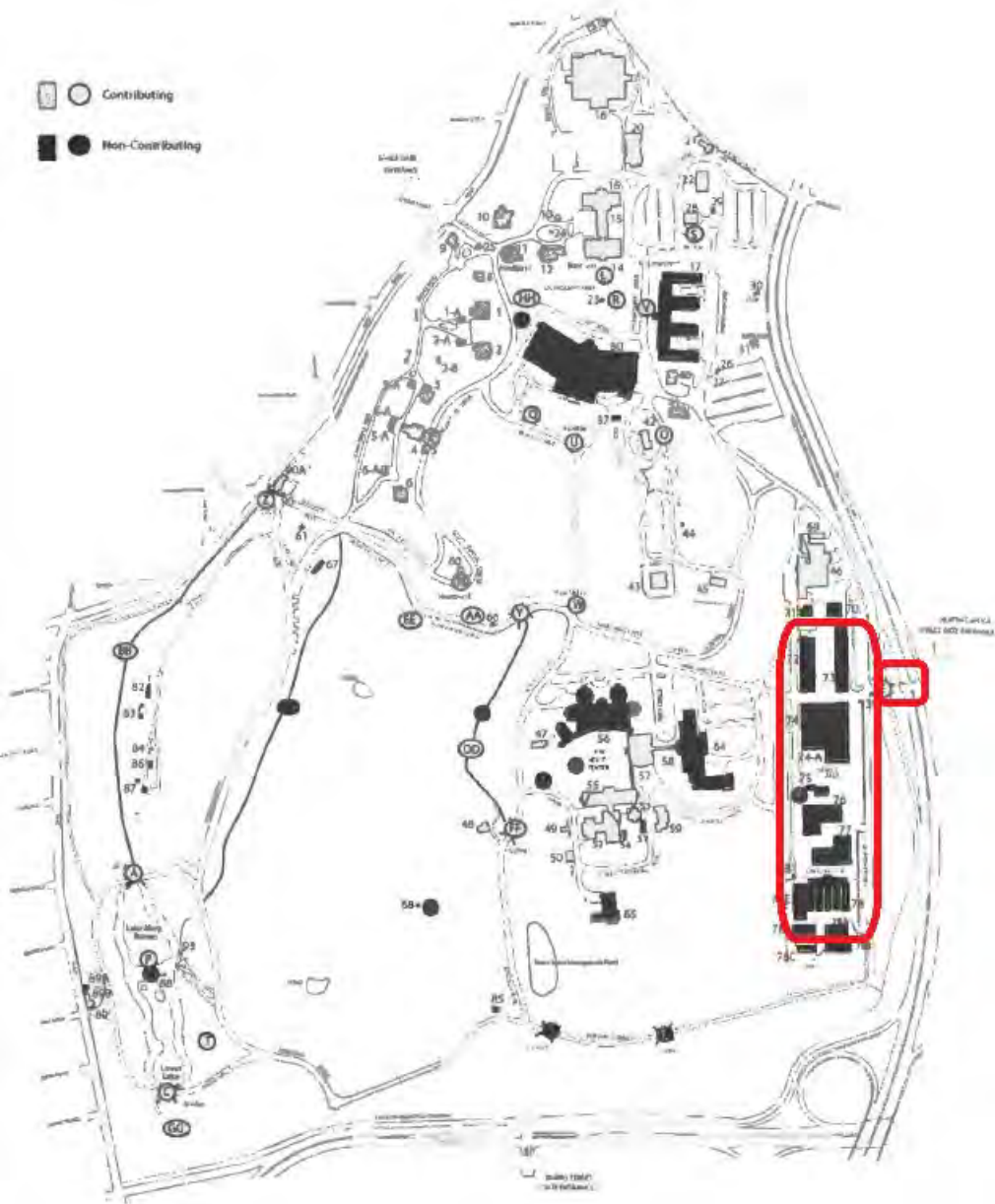
7.4 Armed Forces Retirement Home Site

WMATA’s *2015 Metrobus Facilities Plan Study* also explored the option of relocating Northern Bus Garage to the Armed Forces Retirement Home site located at 3700 N Capitol St. NW, Washington, DC. This alternative would result in the construction of a new facility at a new site to accommodate the project’s needs. Although the Armed Forces Retirement Home site is listed as a historic district in the NRHP, the eastern edge of the site contains only non-contributing structures, landscapes, gates, and roads, allowing sufficient space for a facility large enough to meet WMATA’s needs with a sufficient buffer to ensure proximity impacts would not result in a constructive use (see Figure 7-2 denoting the location of a bus facility on the site that would avoid contributing structures).

As with the Walter Reed Army Medical Center Avoidance Alternative, however, relocating Northern Bus Garage to the Armed Forces Retirement Home site rather than rehabilitating and reopening it at its current location would also require the continued extended travel distance for approximately two dozen bus routes each day (entailing hundreds of bus trips throughout the day) through dense, residential neighborhoods, leading to noise, traffic congestion, and vibration over much larger areas than if those bus routes only needed to travel to the Northern Bus Garage facility, especially since travel to and from established routes would be at a higher average speed given that the buses would not be making stops along the path of travel. Cumulatively, the effect of longer distances for hundreds of trips each day over many years would result in the types of “severe social, economic, or environmental impacts” that cause an avoidance alternative to not be considered “prudent” under Section 4(f). Moreover, this location would severely limit the ability of WMATA to implement electric bus service, given the need for a location for battery recharging near the destinations being served. The *2018 Metrobus Facilities Plan* confirmed that the location and capacity of the Northern Bus Garage relate directly to the operation of major bus lines that serve high-capacity downtown bus routes, particularly the 50s line, which operates along Fourteenth Street. Relocating these operations away at a great distance would result in exactly the type of “unacceptable . . . operational problems” envisioned by the Section 4(f) regulation, given the buses it serves from high demand routes in central DC. The *2015 Metrobus Facilities Plan Study* estimated that relocating facility operations to this site would also increase annual operating costs by 30%, proving too expensive to operate, especially when multiplied over

decades of anticipated service. See *2015 Metrobus Facilities Plan Study* (Technical Memo #4, August 2016, Page 5).

Figure 7-2: Avoidance Alternative at Armed Forces Retirement Home Site



Thus, because the Armed Forces Retirement Home Site alternative would cause severe social, economic, environmental impacts; would result in unacceptable operational problems; and would result in additional maintenance and operational costs of an extraordinary magnitude, this alternative would not be a feasible and prudent avoidance alternative.

Table 7-1 provides a summary of the evaluation the avoidance alternatives based on the prudence and feasibility criteria addressed in 23 CFR 774.17.

Table 7-1: Avoidance Alternative Summary Analysis

Alternative	Infeasible (in terms of sound engineering)	Compromises the Project's Needs	Causes Safety or Operational Problems	Causes Environmental/Community Impacts	Results in Excessive Operational Costs	Causes Unique Problems	Causes Cumulative Impacts
No Action	No	Yes	Yes	Yes	Yes	No	No
Walter Reed Army Medical Center	No	No	Yes	Yes	Yes	No	Yes
Armed Forces Retirement Home	No	No	Yes	Yes	Yes	No	Yes

8.0 PLANNING UNDERTAKEN TO MINIMIZE HARM

When there is no feasible and prudent alternative to the use of a Section 4(f) resource, the Project must include all possible planning to minimize harm to the Section 4(f) property. This section provides a summary of the planning efforts undertaken to minimize harm to Section 4(f) resources that cannot be avoided. These planning efforts have included WMATA's consultation under Section 106 of the National Historic Preservation Act, local design review, and mitigation measures to minimize harm and resolve adverse effects to the historic building (the Section 106 and local design review are discussed more fully below in Section 9.0, Coordination and Consultation). **Table 8-1** provides a summary of the expected uses and proposed mitigation.

FTA initiated Section 106 consultation with the DC SHPO on April 19, 2019. Since the proposed replacement of the Northern Bus Garage is being partly funded by the FTA, the project requires compliance with Section 106 of the National Historic Preservation Act. That process included the development of minimization and mitigation measures designed to protect and restore historic features and materials of the Car Barn. WMATA has already identified and documented the remaining historic fabric of the building, including both interior and exterior spaces, and developed concept designs that will restore the Fourteenth Street facade. WMATA will also retain portions of the north and south elevations of the Car Barn. WMATA will set back the new construction from the wings, separating the new construction from the original form of the Car Barn, which will allow it to read like a historic building rather than a mere façade. Original windows and roofing removed and replaced with non-historic materials in twentieth century renovations will be restored to the historic appearance. The arcade openings and tower will also be preserved. The cumulative result of these measures will be to enhance the design characteristics of the principal façade that have primarily contributed to the building's significance for architectural design.

364 **Table 8-1: Mitigation for Impacts to Section 4(f) Resources**

Section 4(f) Resource	Mitigation
Capital Traction Company Car Barn	• Analysis and documentation of historic fabric • Restoration of the primary Fourteenth Street elevation • Replacement of the non-historic roofing materials for the Car Barn with historically appropriate materials • Replacement of non-historic windows of the Car Barn with historically more appropriate windows and materials • Design of the newly constructed wings to be compatible with the historic building by echoing the horizontal belt courses and rhythm of its windows, and by employing materials that are similar in color and texture to the stone details of the streetcar barn • Setbacks for newly constructed wings to accent the historic building • Other measures as negotiated by WMATA, FTA, DC SHPO, and other consulting parties to address adverse effects

365 A full range of mitigation measures will be executed as part of an MOA under Section 106.

366 9.0 COORDINATION AND CONSULTATION

367 The lead Federal agency, project sponsor, and cooperating and participating agencies all have defined
 368 opportunities for meaningful participation in the decision-making process for the project, including review and
 369 comment on the Section 4(f) evaluation.

370 FTA is the lead Federal agency and WMATA is the project owner, sponsor, and joint lead agency for the
 371 Northern Bus Garage project. The DCSHPO is also considered an official with jurisdiction in terms of Section 4(f)
 372 regulations. WMATA and FTA have coordinated with the DC SHPO during the entirety of the Section 4(f)
 373 evaluation. FTA's Section 4(f) regulation (23 CFR 774.5) states that prior to making Section 4(f) approvals, the
 374 Section 4(f) evaluation shall be provided for coordination and comment to the official(s) with jurisdiction. FTA
 375 is responsible for soliciting and considering the comments of official(s) with jurisdiction over the Section 4(f)
 376 property, as part of the administration of Section 4(f).

377 The Section 4(f) evaluation must also be submitted to the DOI. FTA initiated Section 106 consultation on the
 378 undertaking with the DC SHPO in a letter dated April 16, 2019. Enclosed with the letter were the 2018
 379 *Metrobus Facilities Plan* along with project plans. The correspondence and report included a recommended
 380 APE and determined this undertaking would likely be an adverse effect to the NRHP-listed Capital Traction
 381 Company Car Barn. WMATA and FTA requested concurrence with the APE based on review and comment on
 382 the submitted materials and plans. The DC SHPO concurred the Action Alternative would have an adverse
 383 effect on the Capital Traction Company Car Barn in a letter dated May 16, 2019. In addition, the DC SHPO noted
 384 the entire building is listed in the NRHP and is a designated DC Historic Landmark. The DC SHPO also suggested
 385 that consultation and efforts to minimize the effects continue, which led to initiating the Historic Fabric
 386 Analysis and the consulting party coordination.

387 As part of the initiation of consultation, notification letters were also sent out to organizations that were
 388 considered potential consulting parties due to their interest in the preservation of historic properties.

Notification of the project and a basic project description was provided, along with the concept site plan with draft APE determination. Recipients were the National Capital Planning Commission, the DC Preservation League, and the Advisory Neighborhood Commission, ANC-4C. After consulting parties were identified, they were asked to comment on the undertaking's potential to affect historic properties. No responses or comments were received. The consulting parties and the public were also invited to provide comment at the ANC-4C meetings and at a meeting of the DC Historic Preservation Review Board (HPRB). FTA worked with Consulting Parties, DC SHPO, and WMATA to develop and execute a Memorandum of Agreement (MOA) to document activities required for the mitigation of adverse effects. The executed MOA, effective December 20, 2021, is attached at the conclusion of this evaluation.

A consultation and site inspection with WMATA, FTA, and the DC SHPO occurred in July 2019. The walk-through was conducted of the entire building identifying the locations of historic fabric. The DC SHPO requested documentation of remaining historic fabric, dating from the period of significance (1906-1959). It further suggested that opportunities to restore historic fabric be identified. To this end, WMATA's consultants have prepared a historic materials analysis report. FTA informed the ACHP of the adverse effect determination in July 2019, inviting the ACHP to participate in continuing consultation. The ACHP declined to participate.

Further consultation between WMATA, FTA, and the DC SHPO has occurred as a result of changing concept plans. During the efforts to conduct public outreach, both the Sixteenth Street Neighborhood Association and the Uptown Main Street organization requested the DC SHPO and FTA grant them consulting party status under 36 CFR Part 800, which FTA did.

Pursuant to local law, WMATA is required to engage in local design consultation with HPRB to minimize design impacts on the surrounding neighborhood. This design review addressed, but was not limited to:

- a. Ensuring all structural and operational changes meet the purpose and need of the project;
- b. Ensuring aesthetic treatment of building additions and alterations meet the Secretary of the Interior's Standards for Treatment of Historic Properties;
- c. Landscape design within the limits of disturbance for the project; and
- d. Installation of signage or lighting necessitated by the project.

WMATA presented its concept design before the DC HPRB during its May 28, 2020, virtual meeting. At this meeting, members of the community engaged the HPRB requesting a further refinement of the concept design to ensure better compatibility with the residential neighborhood. HPRB supported these views and asked WMATA to work with both the DC SHPO and neighborhood groups to further refine their designs. WMATA invited the public to provide comment at ANC meetings to review the proposed concept designs.

HPRB determined the proposed demolition is inconsistent with the purposes of the DC Historic Landmark and Historic District Protection Act and directed WMATA to proceed to a hearing before the DC Mayor's Agent. The Mayor's Agent rules on the basis of specific criteria stated in the DC historic preservation law. To approve an application for permit or subdivision, the Mayor's Agent must find that approval was necessary in the public interest or that failure to approve the application would result in unreasonable economic hardship to the owner.

The phrase "necessary in the public interest" means consistent with the purposes of the preservation law or necessary to allow the construction of a project of special merit. Special merit means that a project provides significant benefits to the District or to the community by virtue of exemplary architecture, specific features of land planning, or social or other benefits having a high priority for community services.

The Mayor's Agent has the final authority to determine what is in the public interest under the DC historic preservation law. The Mayor's Agent reviews cases through regularly scheduled public hearings. During these public hearings, the Mayor's Agent will consider not just the recommendations of the HPRB, which are limited to issues of historic preservation and design compatibility, but also economic and planning factors that may impact the continual use of historic landmarks. The public hearing for this project was held on March 26, 2021. The hearing provided for community participation and comment on the broader concerns relevant to the Mayor's Agent's decision. On September 17, 2021, the Mayor's Agent rendered a decision that demolition may proceed for this project, ruling that "[t]he public benefits from the renovation easily exceed the limited preservation losses." Mayor's Agent Decision (HPA No. 20-469). After the case was sent back to HPRB for final design consultation, HPRB approved it on October 28, 2021.

10.0 SECTION 4(F) DETERMINATION

As described in **Section 6.0**, the Preferred Alternative for the WMATA Northern Bus Garage Renovation Project would result in the use of the following Section 4(f) property:

- The Capital Traction Company Car Barn

The project will not result in the use (including constructive or *de minimis*) of any other Section 4(f) properties. FTA has determined that there is no prudent or feasible avoidance alternative to the use of the Capital Traction Company Car Barn, as described in **Section 7.0**. As described in **Section 8.0**, WMATA will minimize and mitigate the harm to the Section 4(f) property through implementing the measures of the Section 106 MOA.

**MEMORANDUM OF AGREEMENT
AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER
AND
THE WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT IN
WASHINGTON, DC**

WHEREAS, the Federal Transit Administration (FTA) plans to provide financial assistance to the Washington Metropolitan Area Transit Authority (WMATA) for the proposed renovation of the Northern Bus Garage, historically known as the Capital Traction Company Car Barn, which is listed on the National Register of Historic Places (NRHP; NR# 13000290, May 22, 2013) (Undertaking) and located at 4701 14th Street, NW; and

WHEREAS, the Northern Bus Garage Renovation Project (Project) consists of the stabilization, restoration, and preservation of the portions of the Northern Bus Garage along 14th Street, NW, including the administration offices and tower, and historic walls on the north and south ends of the building; the demolition of the remaining portions of the historic building and later, non-historic additions; and replacement of the demolished portions with a new building that will be connected to the preserved historic building; and

WHEREAS, FTA has consulted with the District of Columbia State Historic Preservation Officer (DC SHPO) regarding the Undertaking in accordance with 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS, FTA in consultation with the DC SHPO has determined the Undertaking's Area of Potential Effects (APE), as defined in 36 CFR § 800.16(d), as including the entirety of the Northern Bus Garage footprint, and approximately one block of residential or commercial structures along (clockwise starting north) Decatur Street NW, Iowa Avenue NW, Arkansas Avenue NW, Buchanan Street NW, and 14th Street NW, and viewsheds from the intersections of Crittenden Street NW and 15th Street NW facing east, Decatur Street NW, and 15th Street NW facing east, as depicted in Attachment 1; and

WHEREAS, FTA and DC SHPO have applied the criteria of adverse effect pursuant to 36 CFR § 800.5 and determined that the Undertaking will have an adverse effect on the Northern Bus Garage because it will result in the destruction of part of the historic building; and

WHEREAS, WMATA, as a recipient of Federal assistance for the Project, is a consulting party in the Section 106 process pursuant to 36 CFR § 800.2(c)(4) with a responsibility for implementing the terms of this Memorandum of Agreement (MOA) and is invited to sign this MOA as an invited signatory pursuant to 36 CFR § 800.6(c)(2); and

WHEREAS, FTA and DC SHPO invited Uptown Main Street, the Sixteenth Street Neighborhood Association, the Northern Busbarn Neighbors, DC Advisory Neighborhood Commission (ANC) 4C02 and ANC 4C03 to be consulting parties pursuant to 36 CFR § 800.2(c)(5), and consulted with them regarding the effects of the Undertaking on historic properties; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), FTA has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation, and the ACHP declined to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii);

NOW, THEREFORE, FTA, the DC SHPO, and WMATA (henceforth referred to as the Signatories) agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties.

STIPULATIONS

FTA and WMATA shall ensure that the following measures are implemented.

I. IMPLEMENTATION OF DESIGN PLANS

WMATA will construct the Project according to the design plans included in Attachments 2, 3, and 4. These design plans were determined to be the preferred design through robust Section 106 consultation and public outreach to ensure the following items are met:

- A. New construction illustrated in Attachment 2 will be compatible with the historic Northern Bus Garage; will incorporate projecting and receding elements to decrease the monolithic nature of the new structure along Arkansas and Iowa avenues; and use cladding material and visual patterning to further “break down the scale” of the new building, especially near building entrances and garage doors.
- B. Restoration work will be informed by the *Identification of Historic Fabric Report* included in Attachment 3 and implemented in accordance with the plans and narrative scope of work included in Attachment 4 to ensure that historic fabric from the 1906 to 1959 NRHP Period of Significance will be preserved and the historic portions of the Northern Bus Garage will remain prominent features of the overall Northern Bus Complex. Restoration work includes, but is not limited to, preserving and repairing existing historic fabric, restoring elevation elements that have been replaced with inappropriate elements, replacing inappropriate 1980s windows with historically appropriate replacement windows, and preserving and restoring historic sections of the north and south walls and the original smokestack. As part of its on-going review for DC building permits, the DC SHPO may require minor revisions to the plans in Attachment 4.

II. INSTALLATION OF REPLICA STREETCAR TRACKS

To illustrate and highlight the Northern Bus Garage's original function as a streetcar car barn, WMATA shall install replica streetcar tracks in the area where streetcars used to enter and/or exit from the building along 14th Street, NW, as shown in Attachment 5. If the District Department of Transportation's (DDOT) Public Space Committee does not approve streetcar tracks extending through public space to 14th Street, NW, WMATA will provide information to document the Public Space Committee's decision, and may revise the plans in Attachment 5 to limit the streetcar tracks to WMATA-owned property. Regardless of their extent, the tracks shall be ADA compliant and avoid tripping hazards. The replica streetcar tracks will be installed as part of building construction project and will be fully installed within one week of issuance of the building occupancy permit.

III. INTERPRETIVE SIGNAGE EXHIBITS

- A. In consultation with the DC SHPO and consulting parties, WMATA shall develop and install one (1) to three (3) exterior interpretive signage exhibits and up to five (5) interior interpretive signage exhibits for the building's community room as described in Attachment 6. The exterior interpretive signage exhibits shall focus on the historical and architectural characteristics that qualify the Northern Bus Garage for listing in the NRHP and explain the replica streetcar tracks described in Stipulation II above. The interior community room exhibits may focus on broader historical themes that relate to the role the Northern Bus Garage played in the development of the surrounding neighborhood and community, including, but not limited to, topics such as African-American history, commercial development, and social history.
- B. In developing topics and materials for the interior interpretive signage exhibits, WMATA shall solicit initial input from consulting parties and DC SHPO. WMATA will reach out to additional groups or individuals who are knowledgeable about community history as appropriate in developing the content for the exhibits, as described in Attachment 6.
- C. WMATA, in consultation with DC SHPO and FTA, will determine which topics will be pursued further, based on input received through outreach described in Stipulation III.B. and Attachment 6, and decide how many exhibits will ultimately be installed.
- D. WMATA shall provide full color digital drafts of all exterior interpretive signage exhibits and interior interpretive signage exhibits to the consulting parties and DC SHPO for review and comment in accordance with Attachment 6.
- E. Once the content, design, and location are approved by DC SHPO in writing, WMATA shall prepare and install the signage in the approved locations within thirty days of issuance of the building occupancy permit.

IV. REVISIONS TO THE PROJECT

If WMATA refines the design of the Project in a manner that may result in additional or new effects on historic properties, WMATA will notify FTA and the DC SHPO of such changes. Before WMATA takes any Project action that may result in additional or new effects on historic properties, WMATA, FTA, and DC SHPO will consult to determine the appropriate course of action.

V. UNANTICIPATED DISCOVERIES

A. Archaeological Resources and Human Remains

1. In the event that a previously unidentified archaeological resource and/or suspected human remains are discovered during ground disturbance activities, all construction work involving subsurface disturbance will be halted in the area of the resource and in the surrounding area where further subsurface remains can reasonably be expected to occur.
2. WMATA shall notify the DC SHPO's District Archaeologist in writing via email and by telephone immediately.
3. The DC SHPO's District Archaeologist shall conduct a site visit within two working days (48 hours), if possible.
4. DC SHPO will contact the Metropolitan Police Department (MPD) and the DC Office of the Chief Medical Examiner (OCME) if suspected human remains are present per OCME protocols under DC Statute DC ST S 5-1406.
5. WMATA, FTA, and DC SHPO will consult to determine whether the resource is eligible for listing in the NRHP, and if so, whether adverse effects can be avoided or minimized.
6. If the resource is determined NRHP-eligible and adverse effects cannot be avoided, WMATA will propose a Treatment Plan to mitigate adverse effects. Upon concurrence by DC SHPO and FTA on the effects and Treatment Plan, WMATA will carry out the Treatment Plan.
7. Documentation, evaluation, and execution of the Treatment Plan will be undertaken by archaeology professionals meeting the requirements of Stipulation VI, comply with District guidelines for archaeology, and be conducted according to an archaeological work plan approved by the DC SHPO.

B. Architectural and Historic Built Environment Resources

1. If, in the course of implementing the Project, unforeseen and potentially adverse effects occur to above-ground historic properties within the APE, WMATA shall immediately

halt all construction work within fifty (50) feet of the unforeseen effect and take all reasonable measures to avoid or minimize further unforeseen effects. WMATA shall notify FTA and DC SHPO of the issue as soon as practicable, but no later than 3 days following the unforeseen effect.

2. WMATA shall ensure that an architectural historian or historic architect meeting the requirements of Stipulation VI investigates the work site and the historic property within seven (7) days. Following the investigation, WMATA shall forward to FTA and DC SHPO an Assessment of Effects Report to the historic property and proposed Treatment Plan to resolve any adverse effects on historic properties. Upon agreement with the Effects Report and Treatment Plan by DC SHPO and FTA, WMATA will carry out the Treatment Plan.
3. At the conclusion of this consultation, WMATA will provide all parties that participated in the discovery consultation a written summary of the consultation and its resolution. This summary may be transmitted to the participants via e-mail.

VI. PROFESSIONAL QUALIFICATIONS

WMATA shall ensure that all historic preservation and archaeological work performed by WMATA or on its behalf pursuant to this MOA shall be accomplished by or under the direct supervision of a person or persons who meet(s) or exceed(s) the pertinent qualifications in the Secretary of the Interior's Professional Qualification Standards (48 FR 44738-9) in those areas in which the qualifications are applicable for the specific work performed.

VII. MONITORING AND REPORTING

Each year following the execution of this MOA until it expires, is fulfilled, or is terminated, WMATA shall provide the signatories a summary report detailing work undertaken pursuant to the MOA. Such report shall include a summary and update on work being carried out in accordance with relevant stipulations, any scheduling changes proposed, any problems encountered, any disputes or objections received, and related topics. WMATA shall provide the annual report to the Signatories on or before the date of execution of the MOA.

VIII. DISPUTE RESOLUTION

Should any Signatory object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FTA shall notify the other Signatories and consult with such party to resolve the objection. If FTA determines that such objection cannot be resolved, FTA will:

- A. Forward all documentation relevant to the dispute, including FTA's proposed resolution, to the ACHP. The ACHP shall provide FTA with its advice on the resolution of the objection within thirty (30) calendar days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FTA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and

signatories and provide them with a copy of this written response. FTA will then proceed accordingly.

- B. If the ACHP does not provide its advice regarding the dispute within the 30-day time period, FTA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a decision, FTA shall prepare a written response that takes into account any timely comments regarding the dispute from the Signatories and provide the Signatories and the ACHP with a copy of such written response.
- C. FTA and WMATA's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remains unchanged.

IX. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all Signatories. The amendment will be effective on the date a copy signed by all Signatories parties is filed with the ACHP. Revisions to any Appendix to this MOA determined to be non-substantive by the Signatories will not require an amendment to the MOA but must be agreed to in writing by the Signatories.

X. TERMINATION

If any Signatory determines that the terms of this MOA will not or cannot be carried out, that party shall immediately consult with the other Signatories to attempt to develop an amendment per Stipulation IX, above. If within 30 days, or another timeframe agreed to by all Signatories, agreement on an amendment cannot be reached, any Signatory may terminate the MOA upon written notification to other Signatories.

If the MOA is terminated, and prior to work continuing on the Undertaking, FTA must either: (a) execute another MOA pursuant to 36 CFR § 800.6; or (b) request, take into account, and respond to the comments of the ACHP pursuant to 36 CFR § 800.7. FTA shall notify the signatories as to the course of action it will pursue.

XI. GENERAL PROVISIONS

- A. Counterparts; Electronic Signature
This MOA may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This MOA may be signed electronically.
- B. Distribution of MOA
Within one (1) week of the last signature on this MOA, FTA shall provide each Signatory and consulting party with one high quality, legible, full color, electronic copy of the fully-executed MOA and all of its attachments integrated into a single document. Internet links will not be used as a means to provide copies of attachments since links to web-based

information often change. If the electronic copy is too large to send by e-mail, WMATA shall provide a copy of this MOA as described above, on a flash drive, compact disc, or other suitable, electronic means.

XII. DURATION

This MOA will expire if its terms are not carried out within ten (10) years from the date of execution, or when FTA determines that all stipulations have been satisfactorily fulfilled. WMATA shall notify FTA when the project is completed and there are no further opportunities for unanticipated discoveries as described in Stipulation V above. Prior to expiration, FTA may consult with the Signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation IX.

Execution of this MOA and implementation of its terms evidences that FTA has taken into account the effects of the Undertaking on historic properties and afforded the ACHP an opportunity to comment.

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT
WASHINGTON, DC**

SIGNATORY

FEDERAL TRANSIT ADMINISTRATION

By: _____

Date: _____

Terry Garcia-Crews
Regional Administrator, Region III

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT
WASHINGTON, DC**

SIGNATORY

DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER

By: 

Date: 12/15/2021

David Maloney
District of Columbia State Historic Preservation Officer

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
REGARDING
THE NORTHERN BUS GARAGE RENOVATION PROJECT
WASHINGTON, DC**

INVITED SIGNATORY

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

By: Andrew Off
E013349 WMATA

Digitally signed by Andrew
Off E013349 WMATA
Date: 2021.12.10 09:57:04
-05'00'

Date: _____

Andrew B. Off
Executive Vice President, Capital Project Delivery

LIST OF ATTACHMENTS

Attachment 1: Area of Potential Effects

Attachment 2: Building Elevations and Perspective Views

Attachment 3: WMATA Northern Bus Garage: Identification of Historic Fabric Report

Attachment 4: Restoration Narrative Scope of Work, Elevations and Plans

Attachment 5: Plans for Replica Streetcar Track Installation

Attachment 6: Interpretive Signage Exhibits

ATTACHMENT 1
AREA OF POTENTIAL EFFECTS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT



Area of Potential Effects —————

ATTACHMENT 2
BUILDING ELEVATIONS AND PERSPECTIVE VIEWS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT

Northern Bus Garage

Proposed Perspective Views



SOUTHWEST VIEW LOOKING NORTHEAST ALONG 14TH STREET

Northern Bus Garage Proposed Perspective Views

VIEW LOOKING SOUTHEAST ALONG 14TH STREET AT ENTRY



Northern Bus Garage

Proposed Perspective Views



VIEW LOOKING SOUTHEAST ALONG 14TH STREET

Northern Bus Garage

Proposed Perspective Views



VIEW LOOKING NORTHWEST ALONG IOWA

Northern Bus Garage Proposed Perspective Views



VIEW LOOKING SOUTHWEST ALONG ARKANSAS

Northern Bus Garage Proposed Perspective Views



VIEW LOOKING WEST ALONG BUCHANAN AT SOUTHEAST CORNER

ATTACHMENT 3
IDENTIFICATION OF HISTORIC FABRIC REPORT
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT



1914 Photograph of the Northern Bus Garage looking southeast (DC History Center)

WMATA NORTHERN BUS GARAGE: IDENTIFICATION OF HISTORIC FABRIC REPORT

Informing the Treatment of the Existing Structure and
Design of the Replacement Bus Garage

February 2020

**BEYER
BLINDER
BELLE**

Table of Contents

Introduction	3
History and Significance of the Building	3
Physical Description and Chronology of Development.....	5
Summary of Exterior Conditions.....	15
Summary of Treatment and Effects to the Historic Fabric	16
Bibliography	17

Table of Figures

Figure 1. 1906 photograph of the car barn and administrative offices during construction (Washington Times).....	4
Figure 2. 1911 Baist Real Estate Map; Decatur Streetcar Barn is the pink building labeled as the Capital Traction Co. (Library of Congress).....	5
Figure 3. 1914 exterior photograph of the northwest corner of the streetcar barn showing the administrative offices, tower, and two of the three original streetcar openings. The north elevation features arched window openings and hipped roof pavilions at the center and western corner of the elevation (DC History Center)	6
Figure 4. 1914 interior photograph of the Decatur Streetcar Barn showing the transfer table in the foreground and the skylight above (DC History Center).....	7
Figure 5. 1959 Sanborn map showing the garage (then owned by the Capital Transit Company) and the 1926 addition at the east side (Capital Traction Company Car Barn National Register Nomination Form)	8
Figure 6. 1974 photograph of the bus garage looking northwest; the 1926 addition is visible on the right (WMATA Archive, George Washington University Special Collections)	8
Figure 7. 1978 Renovation drawing; red arrow shows the smokestack adjacent to the boiler room and coal storage (WMATA)	9
Figure 8. Angled brick wall on right constructed sometime after 1914 and prior to 1978. The wall created an additional interior room and enclosed the north elevation of the tower at that level. The other angled wall with the overhanging door was added after 1978 (BBB)	10
Figure 9. Contemporary aerial image of the bus garage looking southeast; the original bus garage was wrapped in the one-story 1987-1992 addition that enclosed Decatur Street to the left (north) of the administrative offices and provided WMATA with rooftop parking at the south and east (Google)	11
Figure 10. 1987 photograph looking east showing the extent of the demolition that occurred within the bus garage. The entire ceiling and roof structure in this area was removed except for one bay along the perimeter of the east wall (WMATA Archive, George Washington University Special Collections)	11
Figure 11. Diagram showing the extent of the original roof structure that was removed during the 1987-1992 renovation in green. The red outline shows the original footprint of the garage and the blue outline shows the contemporary property outline. Everything outside the red outline was added during the 1987-1992 renovation (BBB).....	12
Figure 12. Bus entry at the southern end of the west façade was added during the 1987-1992 renovation (BBB).....	12

Figure 13. The two doorways to the right of the pedimented bay are not historic. The one on the left was changed from a window opening to a door prior to 1974 while the one on the right was changed during the 1987-1992 renovation (BBB)	13
Figure 14. A truncated roof shelters the original north elevation and Decatur Street. Large openings for buses were punched in the wall during the 1987-1992 renovation (BBB)	13
Figure 15. Roof of the 1987 addition abuts the original east elevation. Several of the arched windows have been infilled with brick (BBB)	14
Figure 16. Lower level of the bus garage; the original columns and ceiling are present, however, the concrete floor was removed and excavated in the 1980s. The new concrete footings below the columns are visible in the photo (BBB)	15
Figure 17. The north facing streetcar/bus opening adjacent to the tower exhibits stone cracking, spalling, and masonry soiling which require repair (BBB)	16
Figure 18. Proposed upper level plan of bus garage with historic overlay; the 14 th street (west) façade will be retained along with the administrative offices and tower (Wendel)	18

Introduction

The Northern Bus Garage is listed in the National Register of Historic Places (NRHP) (listed in 2013) and the D.C. Inventory of Historic Sites (listed in 2012). The building, located at 4615 14th Street NW and formerly known as the Capital Traction Company Car Barn or the Decatur Streetcar Barn, was originally constructed by the Capital Traction Company in 1906. Fully converted from a streetcar barn to a bus garage in 1959 and transferred to WMATA in 1966, the structure is a vital storage and maintenance facility for WMATA's bus transportation services. The original building, designed in the Italian Renaissance Revival style, is a one-story brick masonry building with partial basement level, the length of which spans two city blocks. The building appears to be two complementary masses; one being a two-story structure used as administrative offices and the other housing the repair shops and garage, which features a three-story tower. The building was significantly altered during renovation work completed in 1987-1992. During this time, the southern and eastern elevations of the building were enveloped in a one-story addition with rooftop parking. Decatur Street, to the north, was enclosed and substantial demolition to the roof, interior columns, and basement floor slab also occurred. Additionally, there were many alterations to the administrative offices and the original building elevations.

Current operational and programmatic challenges require that the bus garage be rebuilt while preserving the historic 14th Street façade of the building. It is important that the Northern Bus Garage Replacement Project (the project) meet WMATA's goals of modernization, sustainability, increased community integration, and flexibility for the future needs of electric buses while preserving the historic fabric that retains integrity and expresses the significance of the building.

FTA-funded projects undertaken by WMATA are subject to Section 106 of the National Historic Preservation Act (NHPA), requiring Federal agencies take into account the effects of their undertakings on historic properties and, if the project is determined to have an adverse effect, afford the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on such undertakings. The Section 106 process was initiated in April 2019, and the undertaking was determined to have an adverse effect by FTA and the DC State Historic Preservation Office, although the ACHP declined to participate in the consultation. The project also requires DC Historic Preservation Review Board (HPRB) review and approval. Through the Section 106 process, the FTA has determined that mitigation will be recorded in a Memorandum of Agreement.

History and Significance of the Building

The bus garage was constructed in 1906 to serve as a streetcar storage and maintenance facility and house administrative offices for the Capital Traction Company. (See **Figure 1**) The building was designed by architecture firm Wood, Donn and Deming and was built by construction firm Richardson and Burgess, opening in 1907. In 1926, the basement portion of the building was leased to the Washington Rapid Transit Company for bus maintenance and storage. Between 1956 and 1962, all D.C. streetcar lines were eliminated or converted to bus routes. In 1959, the building was converted to a bus garage, and ownership was transferred to WMATA in 1966.¹

¹ National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

The Northern Bus Garage building was listed in the D.C. Inventory of Historic Sites in 2012, and in the NRHP in 2013 under Criteria A and C for its architectural and historic significance.² It is considered an outstanding example of Italian Renaissance Revival design for its building type and is directly associated with the streetcar system, a public transportation system that helped develop and determine development patterns of the District of Columbia.³ The building is also eligible for designation under the multiple-property document Streetcar and Bus Resources of Washington, D.C. 1862-1962. According to the multiple property documentation form, to remain eligible under Criterion C, the building must retain its high-style architectural design as well as its original form or shed-like appearance and the streetcar entry openings.⁴

The building's period of significance is from 1906-1959, spanning the period when it served as a streetcar barn.⁵ The period of significance ends when it was converted to a bus garage. Since 1959, many significant alterations have been made to the building.

Figure 1. 1906 photograph of the car barn and administrative offices during construction (Washington Times)



² Under NRHP Criterion A, properties are eligible for listing if they are associated with events that have made a significant contribution to the broad patterns of our history. Under NRHP Criterion C, properties are eligible for listing if they embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, possesses high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. Under the criteria for the DC Inventory, the property is eligible for designation based on the following values: history and architecture and urbanism.

³ National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

⁴ National Register of Historic Places, Streetcar and Bus Resources of Washington, D.C. Multiple Property Listing, Washington, D.C., #64500948

⁵ National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

Physical Description and Chronology of Development

The Northern Bus Garage site is bounded by 14th Street to the west, Decatur Street to the north, Iowa Ave to the northeast, Arkansas Ave to the southeast, and Buchanan Street to the south. The main façade of the building faces 14th Street, and therefore, the west façade is the most decorative. As originally constructed, the brick masonry car barn measured 537 feet (north-south) by 208 feet (east-west), occupying nearly half of the site on Square 2811 and a portion of Square 2815. As platted, the two squares were intended to be divided by Crittenden Street. However, because of the construction of the car barn, the road was never laid, and the squares remained joined. The 1911 Baist Real Estate Map shows the original footprint and surrounding streets of the garage. It is interesting to note the residential character of the neighborhoods to the north of the garage and that the Capital Traction Company owned the squares west of 14th Street, yet the area was not developed at the time. (See **Figure 2**)

Figure 2. 1911 Baist Real Estate Map; Decatur Streetcar Barn is the pink building labeled as the Capital Traction Co. (Library of Congress)



The building was designed to look like two complementary masses: a two-story structure housing the administrative offices, featuring a hipped roof with overhanging eaves, and a two-story car barn and repair shop, characterized by a grand three-story tower with a clerestory. As designed and constructed, the garage consisted of an upper (main level) entered along 14th Street and a partially excavated lower (basement) level, accessed from the south elevation of the building. Exterior character-defining features included brick walls accented with stone belt courses, quoining, and keystones; shallow-pitched hipped roofs of the tower and administrative offices, and bracketed eaves. (See **Figure 3**) The garage and repair shop featured a flat roof with a front gable parapet and several large skylights. The building originally

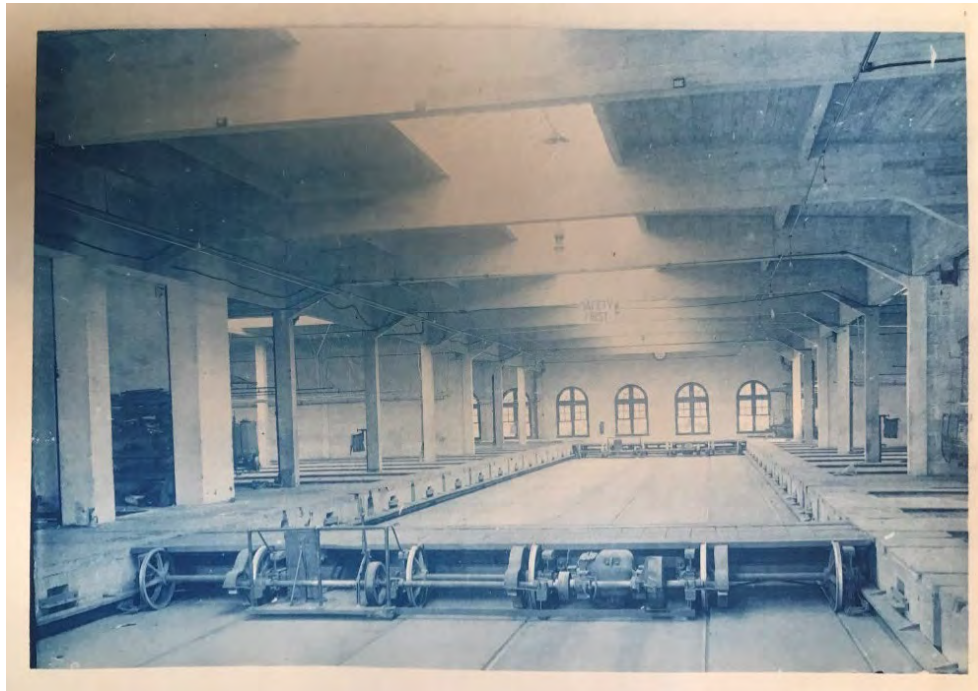
featured three streetcar entrances and exits on the west façade: two facing west and framing the administrative offices and one facing north, immediately adjacent to the tower. Arched window openings on all elevations provided light to the garage and repair shop. The administrative offices, tower, and several projecting pavilions along the north and west elevations featured rectangular windows.

The interior of the car barn is formed by the concrete columns and roof structure. Skylights and the arched window openings provided plentiful daylight. The upper level featured two transfer tables, allowing for the efficient mobility and storage of the street cars. The transfer tables ran parallel to each other from the front (west) to rear (east) elevations of the building. (See **Figure 4**)

Figure 3. 1914 exterior photograph of the northwest corner of the streetcar barn showing the administrative offices, tower, and two of the three original streetcar openings. The north elevation features arched window openings and hipped roof pavilions at the center and western corner of the elevation (DC History Center)



Figure 4. 1914 interior photograph of the Decatur Streetcar Barn showing the transfer table in the foreground and the skylight above (DC History Center)



In 1926, the Washington Rapid Transit Company, established in 1921, leased the lower level of the garage from the Capital Traction Company to use for buses. According to the NRHP nomination, a one-story addition was added to the east elevation of the building at this time to provide storage facilities for the buses. The addition is visible in the 1959 Sanborn map and a 1974 aerial photograph of the bus garage. (See **Figure 5** and **Figure 6**) It is possible that the 1926 addition was expanded after 1959, as it appears slightly larger in the 1974 photograph.

Presumably, many interior alterations were made circa 1959 when the streetcar barn was fully converted to a bus garage, however, the streetcar openings along the west façade continued to be used as bus entries and exits to the garage and repair shops. It is likely that the transfer tables and bays for the streetcars were infilled. Boring samples completed in December 2019 have revealed that partial track infrastructure is extant, although encapsulated in concrete infill. Currently, no documentation has been found that illustrates the interior changes that occurred during this time. Exterior photographs indicate that an additional bus opening was added on the west façade between 1949-1962, immediately adjacent to the north facing opening to the south of the tower. The opening was cut within the pedimented projection, requiring the removal of an arched window opening. A molded cast stone surround, complementing the surrounds of the original openings, was installed. Photographs from 1974 also indicate that an arched window opening at the southern end of the west façade, to the right (south) of the pedimented parapet, was changed to a doorway.

Figure 5. 1959 Sanborn map showing the garage (then owned by the Capital Transit Company) and the 1926 addition at the east side (Capital Traction Company Car Barn National Register Nomination Form)

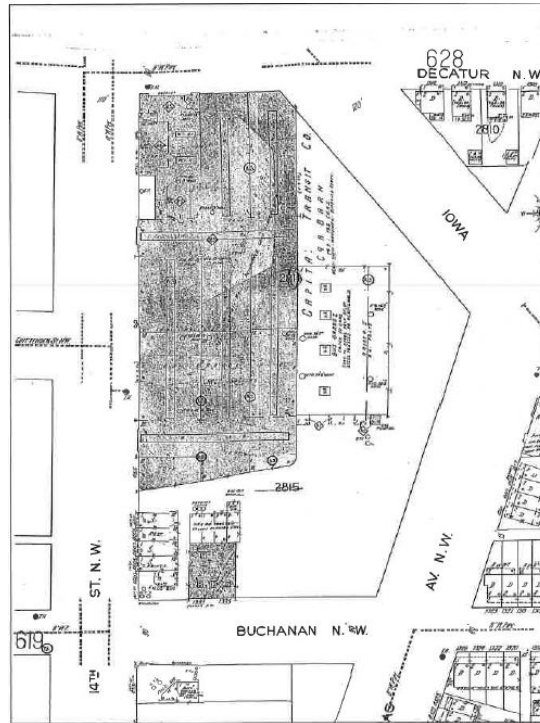


Figure 6. 1974 photograph of the bus garage looking northwest; the 1926 addition is visible on the right (WMATA Archive, George Washington University Special Collections)



Another instance of unknown alteration occurred to the north of the tower. 1914 blueprints show that the north elevation of the tower adjacent to the streetcar opening was originally exposed, however, 1978 existing condition drawings show that an angled wall had been built at the streetcar opening, closing off the north elevation of the tower. Today, the wall is still extant, and a doorway has been inserted. (See **Figure 8**)

BUS STORAGE & REPAIR

SHOP AREA.
(SEE DWG. A-16 FOR DETAILED PLAN OF NEW YORK)

NEW EXH PAN [5]

NEW EXH PAN [5]

LOCKERS

FOR WORK IN THIS AREA SEE A-16

TOILET

TOILET & LOCKERS

BOILER ROOM - SEE A-16

GAL. STORAGE

REMOVE CHAIN-LINK PARTITIONS & RAIL

STORAGE

CONC STEPPED SFT

NEW ELEVATOR DOOR (SEE DWG. A-16)

NEW STRUCTURAL RAMP ABOVE (SEE DWG. A-15)

NEW CEILING HUNG H.V. UNITS & PLENUMS

REMOVE EAST WALL PANEL & REPLACE W/ WINDOW [2]

AREA WELL

REMOVE EXIST. WINDOWS, GRILL PAN & REPLACE W/ LOUVERED SEE DWG. M-1 [5]

NL NEW 2 LAUER

'LAN: UNLESS ILLD.

DWG. A-16

N **S**

Figure 8. Angled brick wall on right constructed sometime after 1914 and prior to 1978. The wall created an additional interior room and enclosed the north elevation of the tower at that level. The other angled wall with the overhanging door was added after 1978 (BBB)



Numerous significant alterations to the property occurred in the 1980s. To reduce noise effects from bus operations to the surrounding neighborhoods, a thirteen-foot high red brick wall was erected in 1982-1983 around the WMATA property, encircling nearly all of Squares 2811 and 2815, except for the southwest corner at Buchanan and 14th Streets.

From 1987 to 1992, the bus garage underwent a phased renovation and addition. The 1926 bus garage addition to the east of the original structure was demolished, and a one-story maintenance facility and garage with rooftop parking was constructed within the 1983 property wall, wrapping the east, south, and north elevations of the building. (See **Figure 9**) The majority of the original roof was demolished and rebuilt except for roofing over several bays at the northern end and a bay that remained along the full perimeter of the building. (See **Figure 10** and **Figure 11**) All but two of the original wood windows were replaced with aluminum windows, and several window openings were enclosed or changed to bus openings. A bus entry was inserted at the southern end of the west façade, immediately left (north) of the pedimented parapet at that end. (See **Figure 12**) To the right (south) of the pediment, an additional window was changed to a doorway. (See **Figure 13**)

The north and majority of the east elevations of the building were enclosed by the addition and bus ramp. The ramp descends west to east and north to south, following the topography of the site. As a result, Decatur Street, between 14th Street and Iowa Ave. was closed to traffic and was incorporated into the bus garage. A truncated roof encloses the original north elevation of garage. The original north elevation, which featured arched window openings was significantly altered with new bus openings, allowing buses to easily move from the garage to the bus ramp and exit at Decatur and 14th Streets. (See **Figure 14**) The east elevation was enveloped by the addition. The original arched window openings are

still present, although many of the fanlights have been infilled with brick or replaced with louvers. The original east wall remains visible at the upper level interior and from the roof of the 1987 addition. (See **Figure 15**) The addition also had significant effects to the south elevation of the original structure. The lower level of the south elevation was fully enclosed and many of the windows at the upper level were removed and filled with glass block.

Figure 9. Contemporary aerial image of the bus garage looking southeast; the original bus garage was wrapped in the one-story 1987-1992 addition that enclosed Decatur Street to the left (north) of the administrative offices and provided WMATA with rooftop parking at the south and east (Google)



Figure 10. 1987 photograph looking east showing the extent of the demolition that occurred within the bus garage. The entire ceiling and roof structure in this area was removed except for one bay along the perimeter of the east wall (WMATA Archive, George Washington University Special Collections)



Figure 11. Diagram showing the extent of the original roof structure that was removed during the 1987-1992 renovation in green. The red outline shows the original footprint of the garage and the blue outline shows the contemporary property outline. Everything outside the red outline was added during the 1987-1992 renovation (BBB)



Figure 12. Bus entry at the southern end of the west façade was added during the 1987-1992 renovation (BBB)



Figure 13. The two doorways to the right of the pedimented bay are not historic. The one on the left was changed from a window opening to a door prior to 1974 while the one on the right was changed during the 1987-1992 renovation (BBB)



Figure 14. A truncated roof shelters the original north elevation and Decatur Street. Large openings for buses were punched in the wall during the 1987-1992 renovation (BBB)



Figure 15. Roof of the 1987 addition abuts the original east elevation. Several of the arched windows have been infilled with brick (BBB)



Significant interior alterations were made to the administrative offices. Rooms were reconfigured, and a new stair and elevator tower addition was constructed at the north end of the office building. The stair and elevator tower was designed to match the Italian Renaissance Revival style of the rest of the building and features the same materials, a slate hipped roof, overhanging eaves with brackets, and similar brick detailing. The interior of the garage was also impacted. The majority of columns on the upper level were removed and reconstructed when the majority of the roof was demolished and rebuilt. On the lower level, the original columns and ceiling slab remain, however, the concrete floor slab was removed, and the floor was excavated approximately 12 inches and re-laid. The original columns and exterior walls are supported by non-historic concrete footings to adjust for the lowered floor. (See **Figure 16**)

Figure 16. Lower level of the bus garage; the original columns and ceiling are present, however, the concrete floor was removed and excavated in the 1980s. The new concrete footings below the columns are visible in the photo (BBB)



Summary of Exterior Conditions

The administrative offices and 14th Street façade exterior building fabric are in overall fair condition. Open and debonded masonry joints are present but are concentrated to vertical facing joints at the building cornices, projecting string courses, and sills. The stone and brick masonry exhibit limited spalling, cracks, perforations from ferrous metal inserts or previous attachments, inappropriate past masonry repairs and patches, soiling, and biological growth. Cracks and spalling are especially present at the stone cornice and the stone surrounds at the original streetcar openings along 14th Street. (See **Figure 17**) The pebble-dashed stucco material present at the eaves of the administrative offices and tower is in good to fair condition, exhibiting some areas of cracking and missing stucco. Many slates on the hipped roof are broken or loose. Metal snow guards are bent and ineffective and the construction of the slate roof shows deficiencies. The roof should be investigated for appropriate flashing, slate headlap, underlayment, and ridge construction. The roof may require replacement.

Repair and restoration of the administrative offices and 14th Street NW masonry façade will require a variety of treatments. Cracks should be repaired and patched with grout or restoration mortar with a composition appropriate for the masonry substrate. Structural cracks may require the insertion of pins to further stabilize the masonry. Small spalls may be tooled to sound stone so that further spalling doesn't occur, and that water doesn't collect or pool. Larger spalls may require patching with restoration mortar or full or partial masonry replacement. All open and debonded joints should be repointed using matching mortar and missing masonry patched with matching materials. Ivy plants growing on the masonry should be carefully removed. The masonry should be cleaned using the gentlest means possible to remove soiling, staining, and biological growth. Soiling is especially apparent at the cornice and at the base of the building.

Figure 17. The north facing streetcar/bus opening adjacent to the tower exhibits stone cracking, spalling, and masonry soiling which require repair (BBB)



Summary of Treatment and Effects to the Historic Fabric

As discussed above, the bus garage has experienced many alterations across its 114-year history, especially as a result of the 1987-1992 renovation. Such changes have affected the integrity of the historic fabric. The 14th Street façade has been altered the least and retains much of its original Italian Renaissance Revival design. The façade, including the administrative offices and tower, has a high level of integrity of design, materials, and workmanship. The remaining elevations have been significantly modified and the integrity of design, materials, and workmanship has been diminished. The same can be said for the interior of the garage, which was significantly altered by the removal of the majority of the upper level columns, lower level slab, and roof structure.

The drawing below shows the existing historic masonry walls overlaid on the design for the upper level of the new bus garage. (See **Figure 18**) Due to the alterations of the historic fabric and the need for a new bus garage that can accommodate efficient and safe vehicle circulation for 40'-0" and 60'-0" articulated buses, the existing bus garage must be replaced. The new bus garage will also ensure adequate height clearance for newer diesel buses and future overhead charging for electric buses, be reorganized to expand the number of maintenance bays and bus storage parking, incorporate a retail element for increased community integration, will be able to 100 percent filter exhaust air, and will reduce operating costs through sustainable strategies. The replacement bus garage project proposes that the east wall and the majority of the north and south walls be demolished. However, the entire west façade, including the administrative offices and tower, would be retained and preserved allowing for the conservation, repair, and cleaning of areas of damage, weathering, soiling, and staining. There is also the opportunity to replace the existing widows with replicas of the historic windows and restore window openings that were previously infilled or replaced with louvers. Such treatments would be developed as design coordination for the project continues. Portions of the upper level of the north and

south elevations, immediately adjacent to the west façade, may be retained but will require continued design coordination and input from the Section 106 process and other review processes, before a final decision on treatment can be made.

Bibliography

Primary Resources

D.C. History Center

The D.C. History Center, located at the Carnegie Library in Washington, D.C. holds several photograph collections, including the John P. Wymer collection, Kathleen Sinclair Wood collection, the Crockett streetcar photo collection, and the Joseph Jessel streetcar slide collection, which had several photographs of the Northern Bus Garage from the 1940s through the 1960s. The Capital Transit Company records are also located at the History Center, which included photographs and blueprint drawings from 1914.

WMATA Archive at the George Washington University Special Collections Library

The WMATA Archives at the George Washington University Special Collections Library held many photographs of the bus garage from 1974 and of the 1987-1992 renovation and addition work.

Secondary Resources

National Register of Historic Places, Capital Traction Company Car Barn, Washington, D.C., National Register #13000290

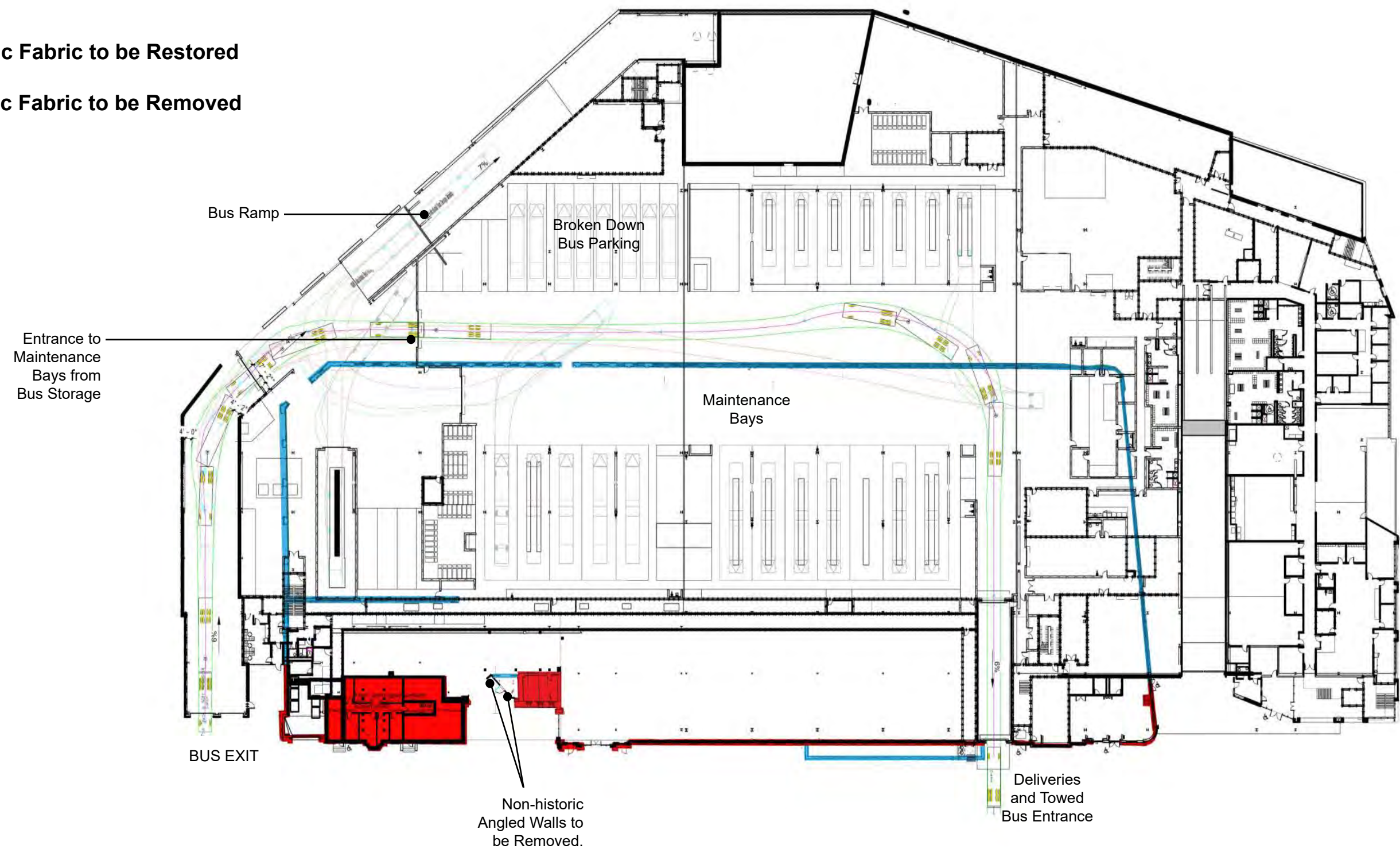
National Register of Historic Places, Streetcar and Bus Resources of Washington, D.C. Multiple Property Listing, Washington, D.C., #64500948

Northern Bus Garage

Proposed Floor Plan with Historic Overlay – Upper Level



- Historic Fabric to be Restored
- Historic Fabric to be Removed



ATTACHMENT 4
RESTORATION NARRATIVE SCOPE OF WORK, ELEVATIONS AND PLANS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT

Restoration Narrative Scope of Work

The restoration scope for the WMATA Northern Bus Garage will include the restoration of the 14th Street elevation; a 36'8" portion of the original south elevation, including the chimney; and a 28' 7" portion of the original north elevation. The restoration will include the removal of non-original alterations, including the c. 1987-1992 Administration Building stair tower, the 1970s angled brick wall in the original streetcar entry, two non-original pedestrian doors in the 14th Street elevation (northern door c. 1970, southern door c. 1987-1992), and the removal of non-original brick window infills. The elevations will be cleaned, repaired, and repointed where needed. The 14th Street NW elevation will be supported by temporary supports during excavation and construction of the new facility. The south portion of the elevation that will be retained will be catalogued, dismantled, and reassembled prior to restoration as its foundations are in conflict with the new bus drive aisle.

The elevation restoration includes the installation of new aluminum wrapped wood core IGU windows and exterior Administration Building doors to match the historic windows and doors as closely as is possible. Historic images, such as photographs and available plans, were used as source material for the design of new doors and windows. The historic symmetrical design of the doors will be retained for the new doors, in keeping with the historic character of the building. The two extant original wood windows on the 14th Street NW elevation will be restored and reinstalled in their existing locations. A historic round wood window currently located at the east elevation will be salvaged, restored, and installed in an opening in the 14th Street NW elevation where this same type of window was originally located, but the window was removed and bricked in at some point.

A survey completed in February of 2020 determined that overall, the brick masonry is in good condition. There are limited areas of step cracking, bio growth, staining, incompatible repointing, and previous alterations. All historic fabric will be cleaned in a manner consistent with the Secretary of the Interior's Guidelines for Rehabilitation: cleaning soiled masonry surfaces with the gentlest method possible. Non-original brick or mortar will be removed. Non-original and deteriorated mortar will be removed and replaced with an approved matching mortar as noted above. Non-original brick will be replaced with historic brick salvaged from the site and mortar analysis will be undertaken to determine an acceptable mortar for repairs. In order to retain as much historic masonry in situ as possible, small brick cracks or mechanical damage will be repaired rather than replaced. These repairs are ONLY for minor cracks and holes from anchors drilled in the face of the brick will be repaired with a patching mortar in compliance with the Secretary of the Interior's Guidelines for Rehabilitation.

The limestone and granite portions of the elevation are in a more distressed condition than the brick and will require more repair and, in select locations all noted on the drawings, replacement to match historic. Small areas of stone damage will be repaired with custom matched mortar repairs or dutchman. Only in a few limited instances will replacement to match historic be required. All limestone and granite will be cleaned in a manner consistent with the Secretary of the Interior's Guidelines for Rehabilitation: cleaning soiled masonry surfaces with the gentlest method possible. As detailed in contract documents, the non-historic parapet flashing currently installed in some locations on 14th Street will be removed to expose the historic limestone beneath. Small areas of stone damage will be repaired with custom matched mortar repairs or dutchman. Only in a few limited instances will replacement to match historic be required.

The pebble dash stucco at the cornice of the Administration Building and Tower will be cleaned in a manner consistent with the Secretary of the Interior's Guidelines for Rehabilitation: cleaning soiled masonry surfaces with the gentlest method possible. Repairs are identified in the contract documents where cracking and de-laminating has occurred. The painted wood trim in the cornice will be cleaned, repaired, and repainted.

The restoration will include the replacement of the non-original Administration Building and Tower slate and metal roofs with historically appropriate slate and metal roofing. The roofs and underlayment require full replacement based on poor condition. New gutters and downspouts to match the historic will be installed.

Restoration Elevations and Plans on following pages:



1914 Photograph (DC History Center)

WMATA Northern Bus Garage

4615 14th Street NW
Washington, D.C. 20011

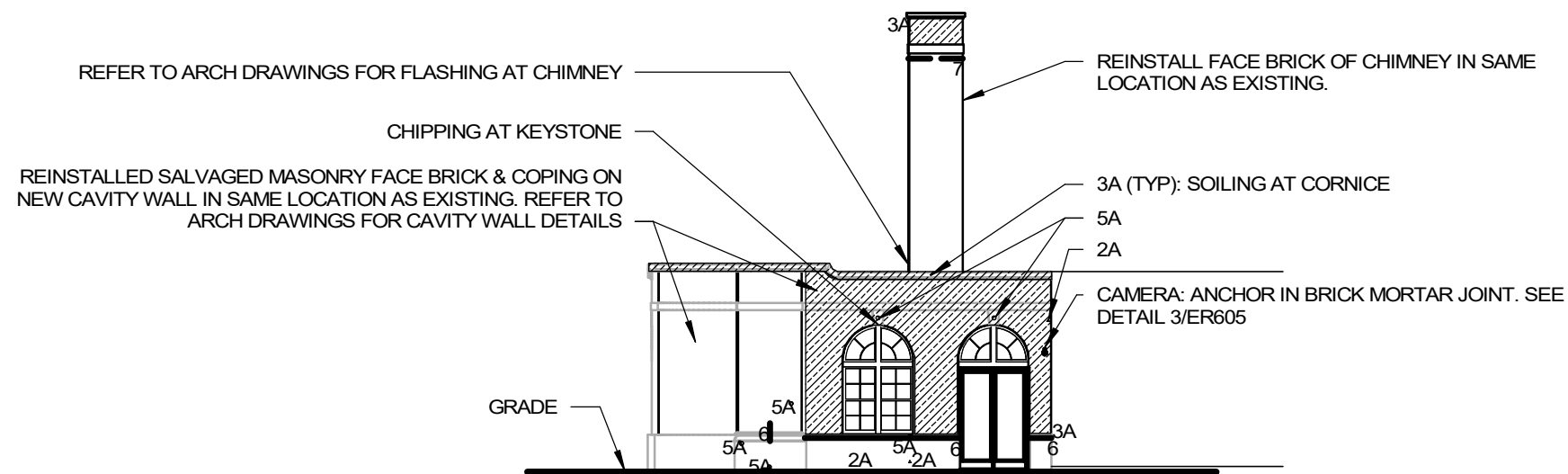
Elevations for Section 106 Consultation
October 1, 2021

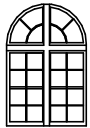
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

PREPARED BY:

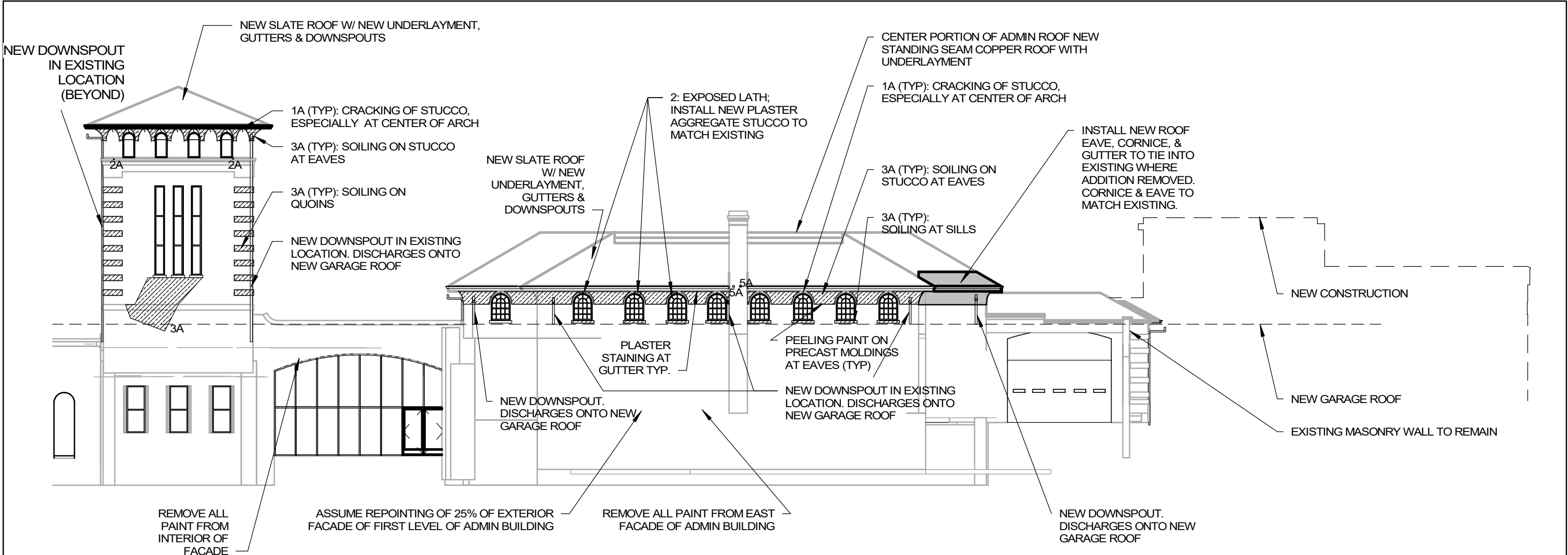
BEYER BLINDER BELLE ARCHITECTS & PLANNERS LLP
3307 M STREET NW
WASHINGTON, D.C. 20007

Northern Bus Garage - Preservation Treatment Approach - Elevations



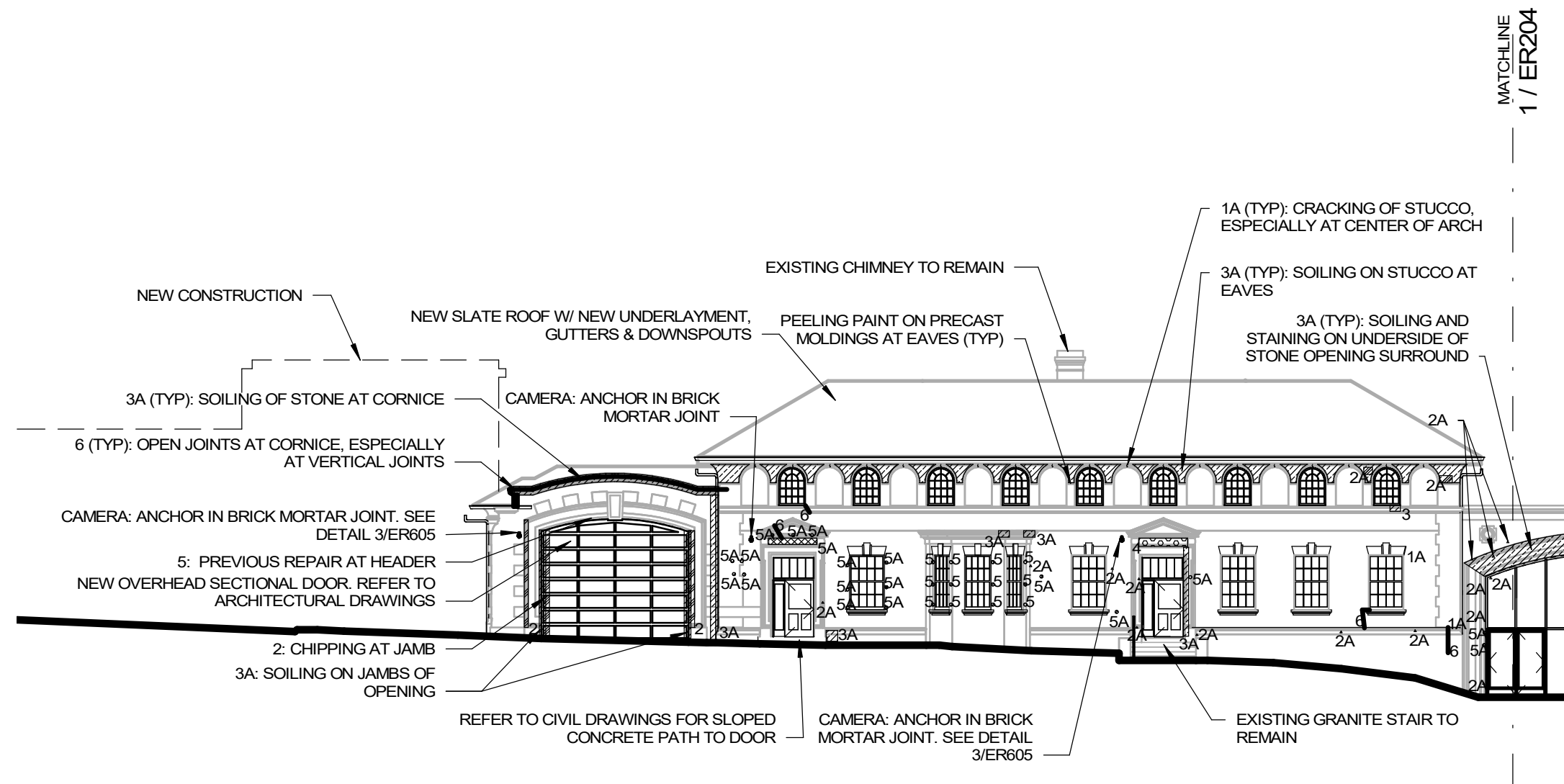
SYMBOLS LEGEND		SHEET NOTES	
— EXISTING — NEW OR REINSTALLED SALVAGED HISTORIC FABRIC EXISTING CONDITIONS REQUIRING TREATMENT 1 - REPAIR CRACKS AND DEFORMATION 1A - CRACK 2 - REPAIR DETACHMENT AND DISLOCATION 2A - CHIPPING 3 - CLEAN DISCOLORATION AND DEPOSITS 3A - SOILING 4 - REMOVE BIOLOGICAL COLONIZATION	5 - ALTERATIONS/PREVIOUS REPAIRS. REMOVE NON-ORIGINAL BRICK OR STONE & INSTALL SALVAGED HISTORIC BRICK OR NEW STONE TO MATCH EXISTING. 5A - FERROUS METAL INSERTS 6 - OPEN JOINT 7 - DEBONDED JOINT 8 - INACCESSIBLE PORTION OF FACADE DUE TO EXISTING CONSTRUCTION. BBB TO SURVEY AFTER DEMOLITION REFER TO BRICK AND STONE REPAIR, REPOINTING AND CLEANING SPECIFICATIONS FOR TREATMENT PROCEDURES	 NEW ALUMINUM WRAPPED WOOD CORE WINDOW WITH IGU RE: ER-601 FOR WINDOW SCHEDULE  REINSTALLED RESTORED HISTORIC WOOD WINDOW RE: ER-601 FOR WINDOW SCHEDULE  NEW DOOR TAG  WINDOW TAG	1. INSTALL NEW SLATE ROOF AND UNDERLAYMENT AT TOWER, ADMINISTRATION BUILDING, & HIPPED ROOF TO NORTH OF ADMINISTRATION BUILDING TO REMAIN. REFER TO ARCH DRAWINGS FOR SPLASH BLOCKS 2. ALL MASONRY TO RECEIVE GENERAL CLEANING. REFER TO MASONRY CLEANING SPECS 3. REMOVE ALL EXISTING PARAPET FLASHING . REPOINT ALL SKYWARD FACING JOINTS IN PARAPET & INSTALL LEAD T'S AT ALL HORIZONTAL JOINTS IN EXISTING LIMESTONE COPING 1 ER101 EL-01-04 SOUTH ELEVATION - EXTERIOR RESTORATION 1/16" = 1'-0"

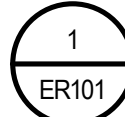
Northern Bus Garage - Preservation Treatment Approach - Elevations



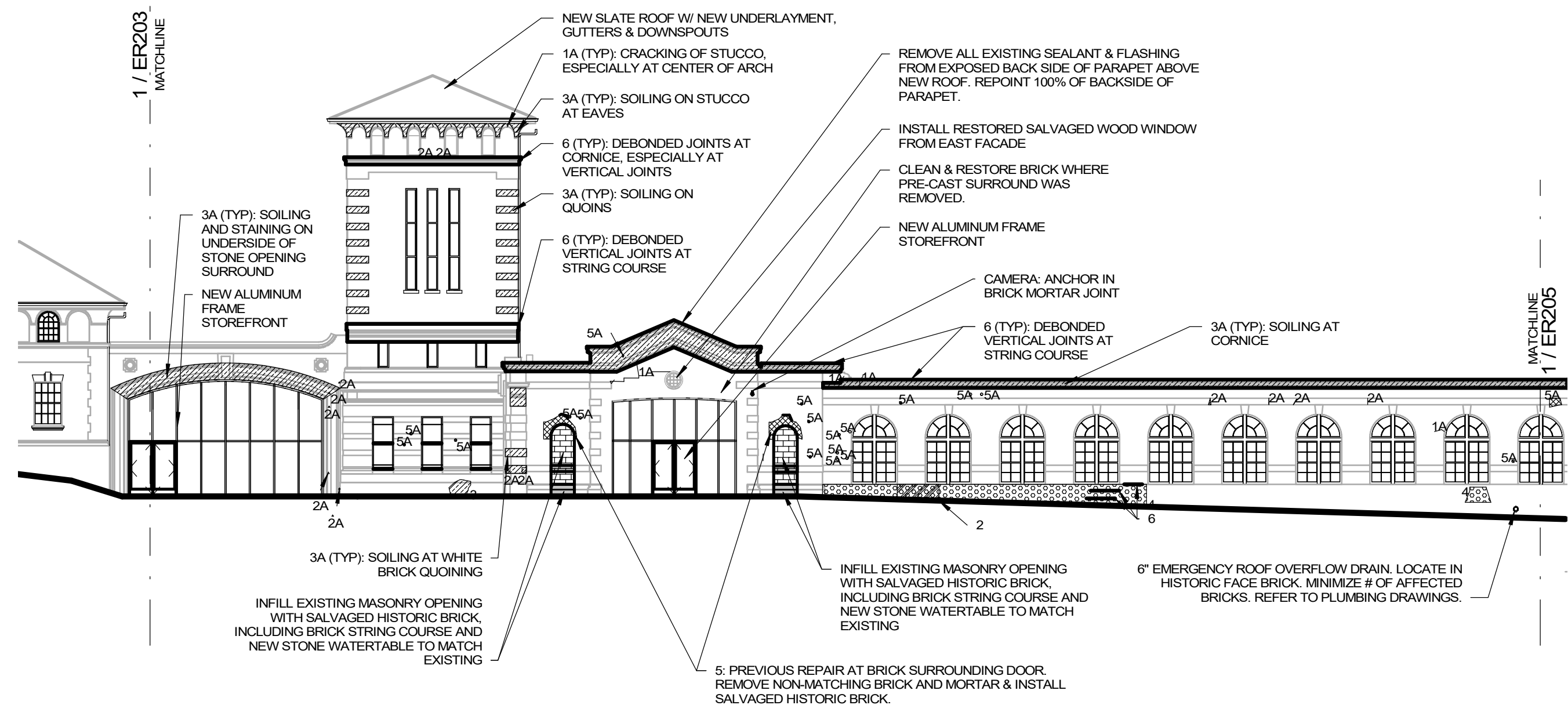
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1 EL-02-01 EAST ELEVATION - EXTERIOR RESTORATION ER101 1/16" = 1'-0"				

Northern Bus Garage - Preservation Treatment Approach - Elevations



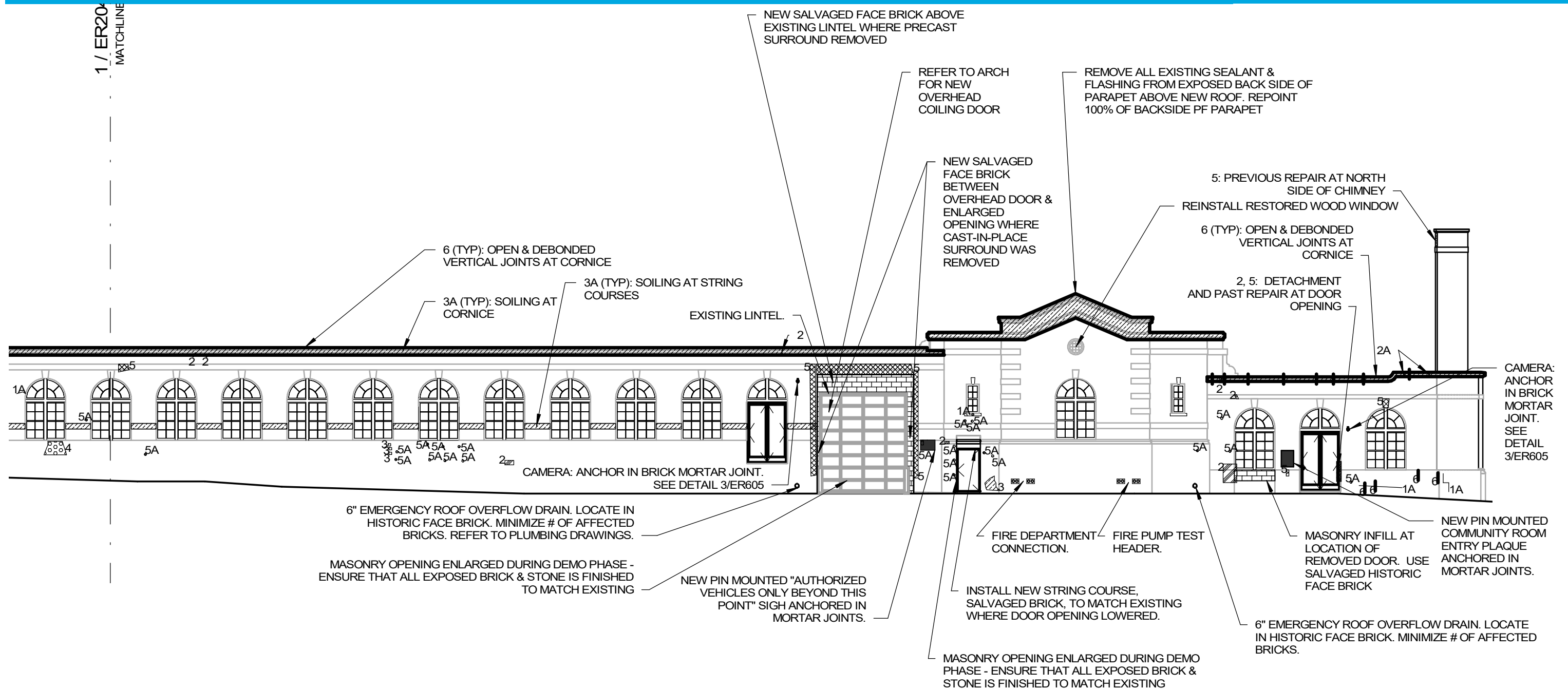
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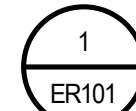
Northern Bus Garage - Preservation Treatment Approach - Elevations



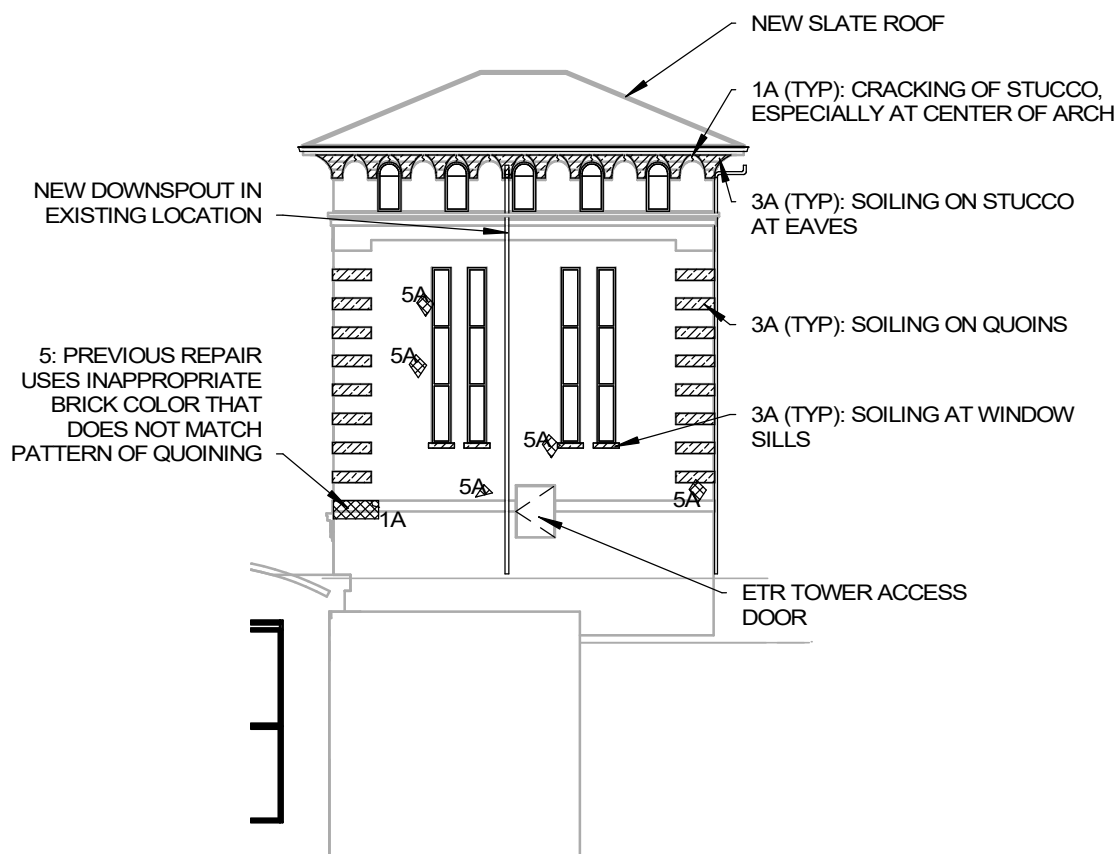
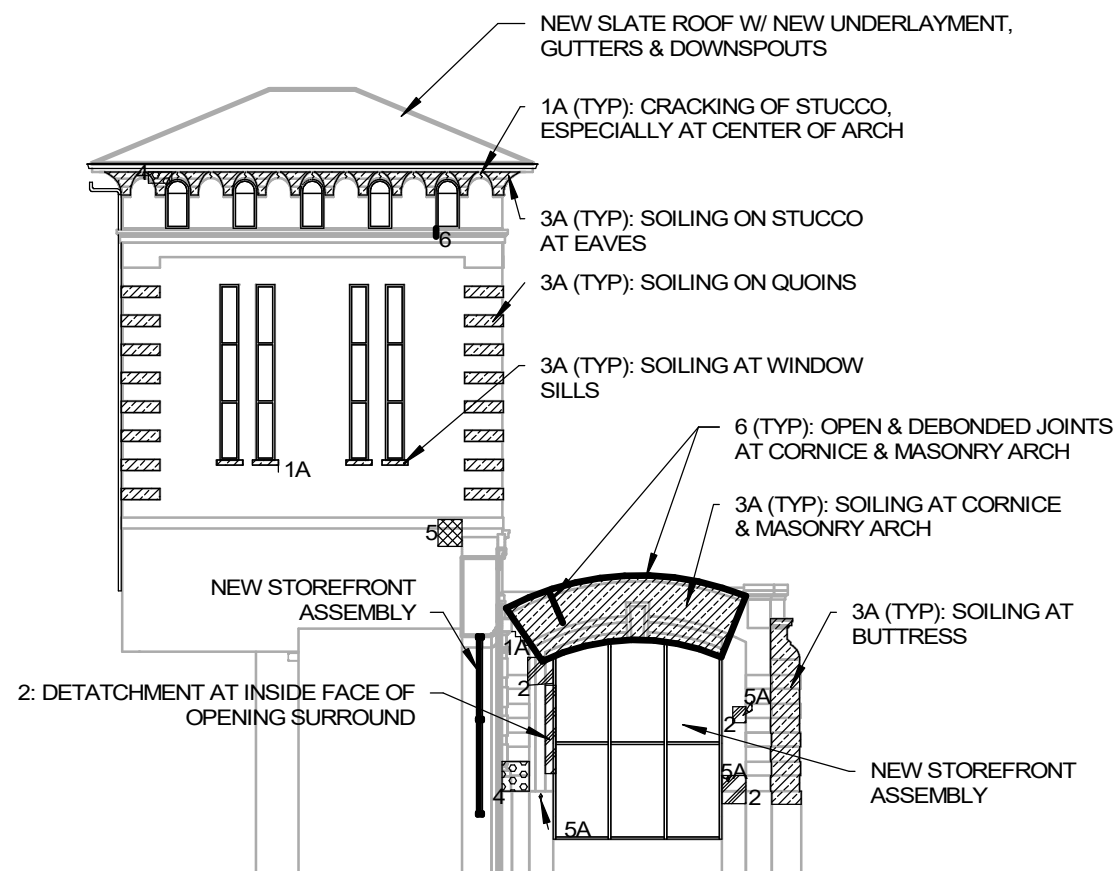
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	1 EL-03-02 WEST ELEVATION - EXTERIOR RESTORATION 1/16" = 1'-0"		

Northern Bus Garage - Preservation Treatment Approach - Elevations



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REFER TO BRICK AND STONE REPAIR, REPOINTING AND CLEANING SPECIFICATIONS FOR TREATMENT PROCEDURES			

Northern Bus Garage - Preservation Treatment Approach - Elevations

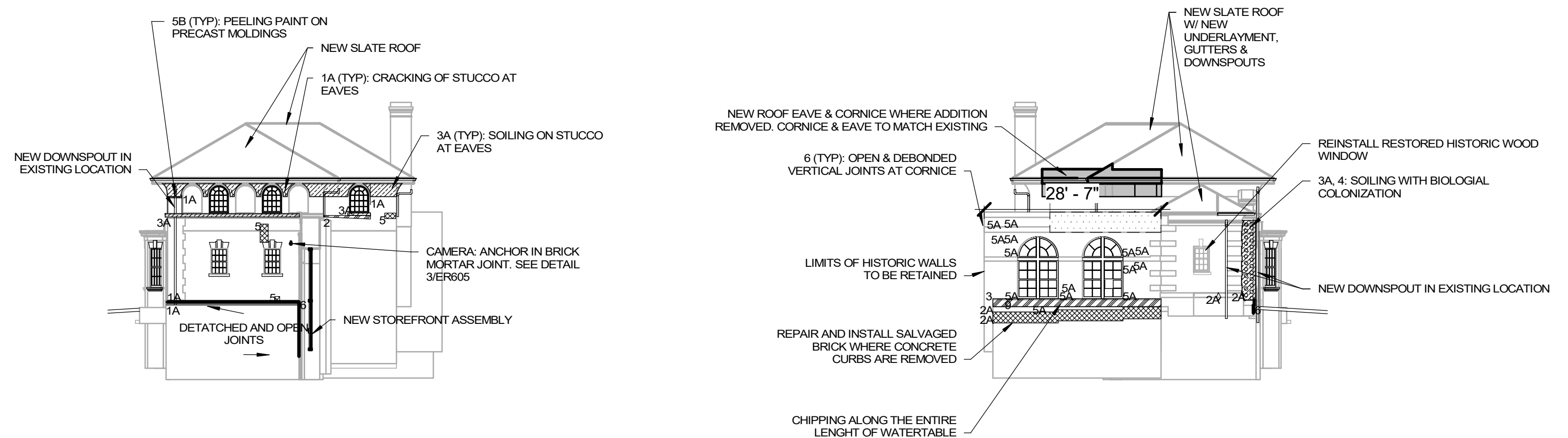


2
ER102
EL-04-02 TOWER NORTH ELEVATION - EXTERIOR RESTORATION
1/16" = 1'-0"

4
ER102
EL-01-02 TOWER SOUTH ELEVATION - EXTERIOR RESTORATION
1/16" = 1'-0"

SYMBOLS LEGEND			SHEET	NOTES
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Northern Bus Garage - Preservation Treatment Approach - Elevations



1
ER102

EL-01-02 ADMIN SOUTH ELEVATION - EXTERIOR RESTORATION

1/16" = 1'-0"

2
ER102

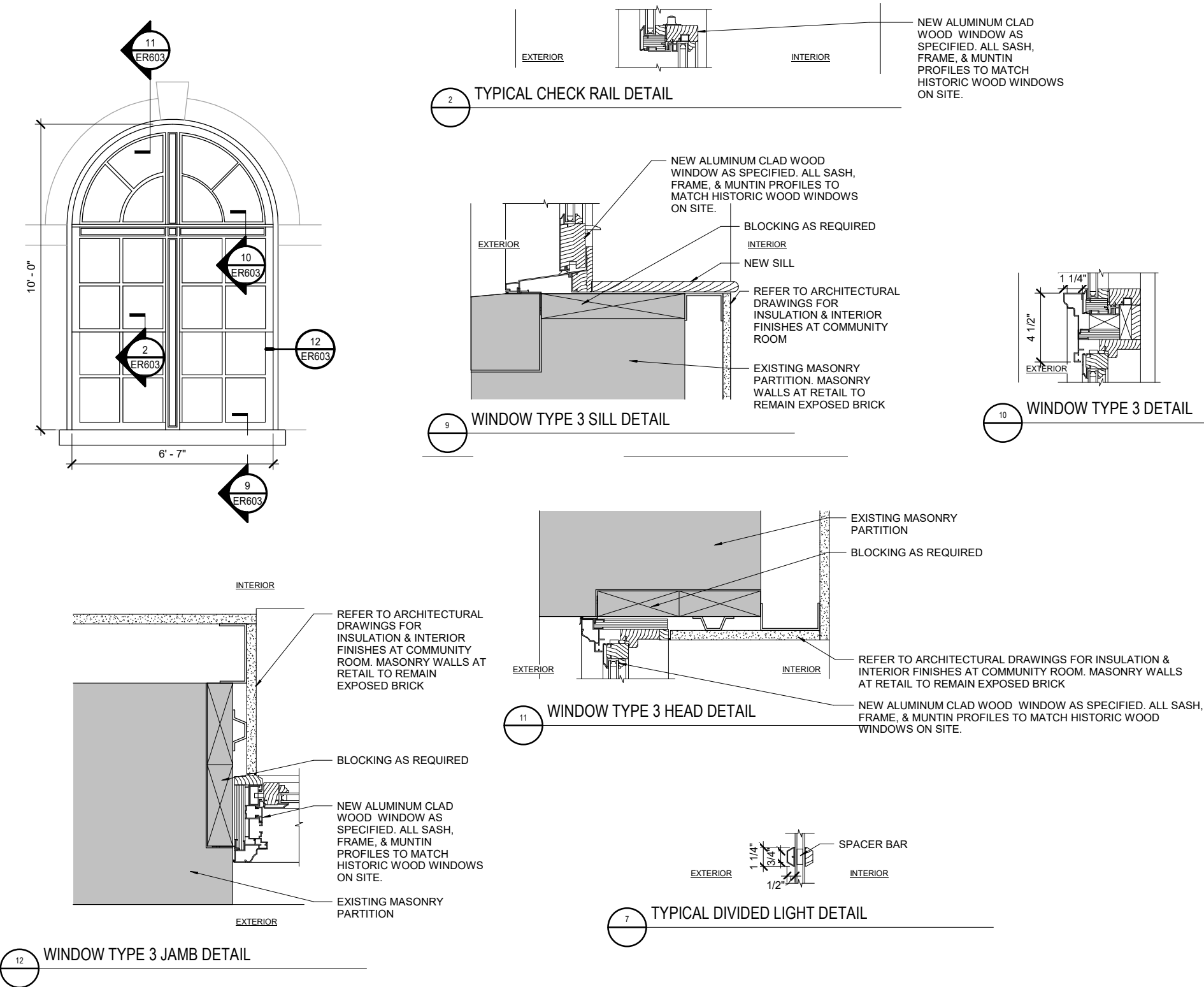
EL-04-02 ADMIN NORTH ELEVATION - EXTERIOR RESTORATION

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	REFER TO BRICK AND STONE REPAIR, REPOINTING AND CLEANING SPECIFICATIONS FOR TREATMENT PROCEDURES			

Northern Bus Garage - Preservation Treatment Approach - Windows

Window Type 3



Remaining Original Window



All sash, frame, and muntin profiles to match the only remaining original window on site.

14th Street NW

NORTHERN BUS GARAGE TRACK DETAIL

Track Section A-A' (N.T.S.)

Direct fixation track hardware at 4" on center Max.

4'-8 1/2" GAUGE

Exposed track top (1/4 inch max gap)

4" concrete sidewalk

8" concrete

GAB

Face of Building

Green Space

Proposed Sidewalk

Tree Buffer

Existing ROW

Scored Concrete Sidewalk

Tracks

Section A-A'

North Arrow

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
DEPARTMENT OF CONSTRUCTION AND DESIGN

PROJECT NO. 1010144N
DATE 10/1/14
SHEET NO. M1322-1

REFERENCE DRAWINGS

1010144N-0101
1010144N-0102
1010144N-0103
1010144N-0104
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ATTACHMENT 6
INTERPRETIVE SIGNAGE EXHIBITS
NORTHERN BUS GARAGE RENOVATION PROJECT
MEMORANDUM OF AGREEMENT

To help mitigate the adverse effects associated with the renovation of the Northern Bus Garage, WMATA will develop and install interpretive signage exhibits as described below. This Scope of Work is organized into four sections: Background, Goals of the Exhibits, Tasks, and Deliverables.

Background:

WMATA plans to renovate the Northern Bus Garage, which is listed in the National Register of Historic Places (NRHP; NR# 13000290 listed April 5, 2013) and as a DC Historic Landmark (September 27, 2012) as the Capital Traction Company Decatur Street Car Barn. The renovation effort will remove portions of the historic fabric of the car barn, which will result in an adverse effect.

As part of mitigation efforts for the adverse effect, WMATA will be providing interpretive signage exhibits as explained below. Exterior signage shall focus on the historical and architectural characteristics (the building's history, architecture, and use) that qualify the building for listing in the NRHP. Interior exhibits will provide additional details about the Northern Bus Garage and related topics such as the role the garage played in the development of the surrounding neighborhood and community.

Goal of the Exhibits:

These interpretive signage exhibits will explain the historical and architectural characteristics that qualify the Northern Bus Garage for listing in the NRHP and connect the community and others to the significance of the Northern Bus Garage, especially the restored portions of the 1906 building along 14th Street, NW, by explaining the role the facility played in the development of transportation in Washington, D.C. and the surrounding neighborhood. Broader topics related to commercial development, social history, African American history, and other themes associated with the facility and the community will also be addressed in the community room exhibits to provide relevant information from a wider variety of perspectives. All exhibits will be designed to be compatible with their historic setting, both exterior and interior, and will not cause any damage to historic fabric.

Specific Tasks:

One to three exterior interpretive signage exhibits will be developed to explain the historical and architectural significance of the Northern Bus Garage. Text will be based upon the NRHP nomination for the Capital Traction Company Car Barn, the NRHP Multiple Property Documentation for Streetcar and Bus Resources of Washington, DC 1862-1962, and related research. One exhibit will be used to explain the replica streetcar tracks that will be installed in

front of the Northern Bus Garage along 14th Street, NW. Proposed signage locations will be identified through consultation with the DC SHPO. The primary location of exterior exhibits will be adjacent to the restored portions of the building on 14th Street, NW, but additional exhibits may also be installed adjacent to and/or on newly constructed portions of the Northern Bus Garage to provide additional interpretive opportunities and to enliven and break down the scale of the large new building. The appearance of the exterior exhibits, especially those along 14th Street, NW and within or adjacent to public space, will be based upon existing interpretive signage exhibits within the District of Columbia (e.g. the Neighborhood Heritage Trails installed by Cultural Tourism DC and/or the Kalorama Citizens Association signage – see examples below) to provide consistency throughout the city and make it easier for users to recognize the as interpretive signage exhibits. Any interpretive signage exhibits that may be attached to the newly constructed portions of the Northern Bus Garage may be designed with greater flexibility.





QTY: 1 (24"x42") EXTERIOR GRAPHIC FOR PEDESTAL

SCALE: 3/4"=1'-0"

MATERIAL: EXTERIOR GRADE CHPL GRAPHIC FOR
SURFACE MOUNT ON PEDESTAL



Up to five interior interpretive signage exhibits will be installed in the 1600 sq. ft. community room which, for reference, has a finished wall height of 13 ft. 8 in. The interior exhibits shall focus on broader historical themes that relate to the development of the Northern Bus Garage and the surrounding neighborhood and community, including African-American History and related topics. The content will be determined in consultation with the DC SHPO and the consulting parties; the final number of exhibits will be determined in consultation with FTA and DC SHPO. The appearance of the interior signs should relate to that of the exterior signage exhibits, but more flexibility can be applied to the design of the interior exhibits provided they do not damage any historic interior fabric. For example, three-dimensional artifacts, audio/visual samples, personal memorabilia, and other creative methods of interpretation may be considered for incorporation into the designs.

Deliverables:

1. In accordance the Section 106 Memorandum of Agreement (MOA) the contractor hired by WMATA will solicit initial input from DC SHPO and the consulting parties regarding the topics they would like to have included in the interpretive signage exhibits. As appropriate to fully develop the topics, the contractor will conduct additional outreach to individuals or groups that are knowledgeable about community history.
2. Based upon the feedback provided in Deliverable 1 above, the contractor will research historical themes using primary and secondary sources. The contractor will conduct a minimum of three oral history interviews with relevant community members and people historically associated with the Northern Bus Garage facility. Oral histories shall be transcribed and transcriptions shall be provided to consulting parties upon request.

3. The contractor will develop draft text and graphics for interpretive signage exhibits, along with recommendations for the locations, size, and related details in keeping with the existing interpretive signage examples cited above.
4. Full color drafts of all interpretive signage exhibits will be provided in digital format to the consulting parties and DC SHPO for review and comment.
5. The contractor shall submit digital versions of the full color drafts and all consulting party comments to the DC SHPO for final review. The contractor will consult further with the DC SHPO to finalize all aspects of the interpretive signage exhibits including but not limited to text, images, location, size and design. Once approved by DC SHPO in writing, the contractor shall prepare final plans and a cost estimate for fabrication and installation of all interpretive signage exhibits.
6. WMATA shall fabricate and install all the interpretive signage exhibits within thirty days of issuance of the building occupancy permit, in accordance with the Section 106 MOA.



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
5 Post Office Square, Suite 18011
Boston, Massachusetts 02109

February 2, 2022

4111
ER 22/0001

Terry Garcia Crews
Regional Administrator, Region 3 Office
Federal Transit Administration
1835 Market Street, Suite 1910
Philadelphia, PA 19103

RE: Comments
Draft Section 4(f) Evaluation
WMATA Northern Bus Garage Replacement
Washington, DC

Dear Ms. Garcia Crews:

The U.S. Department of the Interior (Department) has reviewed the Northern Bus Garage Draft Section 4(f) Evaluation prepared by The Washington Metropolitan Transit Authority (WMATA) and submits the following comments prepared in compliance with Section 4(f) of the US Department of Transportation (USDOT) Act of 1966, which is codified at 49 U.S.C. § 303 and 23 U.S.C. § 138, with implementing regulations at 23 CFR §774.

The Department understands that the Federal Transit Authority (FTA) is funding the replacement of WMATA's Northern Bus Garage (historically known as the Capital Traction Company Car Barn, located at 4615 Fourteenth Street, NW. A portion of the Northern Bus Garage consists of the former Capital Traction Company Car Barn, which has been listed in the National Register of Historic Places (NRHP). Current operational and programmatic challenges require facility improvements in order to meet WMATA's goals of modernization, sustainability, increased community integration, and flexibility for the needs for both electric and diesel buses. Under Section 4(f), historic properties listed in or eligible for the NRHP are considered Section 4(f) resources.

WMATA's goals for rehabilitation of the Northern Bus Garage will better facilitate its needs for modernization, sustainability, increased community integration, and flexibility for use by both electric buses and diesel buses. As part of Section 4(f), FTA was required to consider alternatives that completely avoid a "use" of Section 4(f) properties. WMATA has conducted analysis to identify potential *feasible and prudent avoidance alternatives*. Three such potential alternatives were identified: No Action Alternative (the no-build alternative); relocating Northern Bus

Garage to the grounds of Walter Reed Army Medical Center; and relocating Northern Bus Garage to the grounds of the Armed Forces Retirement Home.

Through their analysis it was determined that the No Action Alternative did not meet the WMATA's goals for the project and that both the Walter Reed Medical Center and the Armed Forces Retirement Home alternatives would cause severe social, economic, environmental impacts; would result in unacceptable operational problems; and additional maintenance and operational costs of an extraordinary magnitude, this alternative would not be a feasible and prudent avoidance alternative.

WMATA also evaluated the area surrounding the existing Northern Bus Garage location for other potential avoidance alternative sites. The areas nearer to the existing Northern Bus Garage, however, are highly developed, consisting primarily of either public parks or potentially historic residential and commercial buildings. Siting a facility large enough to accommodate WMATA's needs any closer than the potential avoidance alternatives detailed below would require either the use of a public park or demolition of buildings potentially eligible for the National Register of Historic Places, making that alternative not an avoidance alternative, as required by Section 4(f).

As part of this planning effort, FTA initiated Section 106 consultation with the District of Columbia Historic Preservation Office (DC SHPO) on April 19, 2019. That process included the development of minimization and mitigation measures designed to protect and restore historic features and materials of the Car Barn. WMATA identified and documented the remaining historic fabric of the building, including both interior and exterior spaces, and developed concept designs that will restore the Fourteenth Street facade. WMATA will also retain portions of the north and south elevations of the Car Barn. WMATA will set back the new construction from the wings, separating the new construction from the original form of the Car Barn, which will allow it to read like a historic building rather than a mere facade. Original windows and roofing removed and replaced with non-historic materials in twentieth century renovations will be restored to the historic appearance. The arcade openings and tower will also be preserved. The cumulative result of these measures will be to enhance the design characteristics of the principal facade that have primarily contributed to the building's significance for architectural design.

With regard to the draft Section 4(f) Evaluation, the Department understands there are no feasible and prudent alternatives that avoid the use of Section 4(f) properties, and that WMATA's preferred site, the Capital Traction Company Car Barn, is the alternative that causes least harm. In addition, the Department also agrees the project will result in an adverse effect under NHPA Section 106 and that WMATA will further minimize and mitigate adverse effects to the Section 4(f) property through implementing the measures of the Section 106 MOA.

Given that the Section 4(f) properties are directly located within the area needing to be rehabilitated, based on the information provided in this draft document the Department concurs with the WMATA initial findings that there is no feasible and prudent alternative to the Capital Traction Company Car Barn site.

The Department appreciates the opportunity to provide these comments. For continued coordination with the Department, please contact Tammy Stidham, Deputy Associate Area

Director - Lands and Planning, at [Tammy Stidham@nps.gov](mailto:Tammy_Stidham@nps.gov). Please contact me at (617) 223-8565 or at andrew_raddant@ios.doi.gov if I can be of further assistance.

Sincerely,

Andrew L. Raddant
Regional Environmental Officer

APPENDIX 10: NOISE AND VIBRATION ANALYSIS

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Contract FQ15190
Task Order No: CIP-19-FQ15190-ENGA-001

WMATA Northern Bus Garage

Noise and Vibration Impact Assessment Technical Report

March 2022



Washington Metropolitan Area Transit Authority

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Table of Contents

1	Introduction	2
1.1	Background on Noise and Vibration Descriptors	4
1.2	Assessment Methodology	6
2	Noise Measurement Results	9
2.1	Noise Impact Assessment Results	11
2.2	Construction Noise and Vibration	15
2.3	Construction Vibration Assessment	16
2.4	Construction Vibration Mitigation	17
	Appendix	18

List of Tables

Table 2-1	Noise Measurement Results	9
Table 2-2	Noise Impact Assessment Results	12
Table 2-3	FTA Vibration Criteria for Potential Structural Damage	15
Table 2-4	Construction Noise Predictions	15
Table 2-5	Typical Construction Vibration Sources Levels and Distances	15

List of Figures

Figure 1-1:	Detailed Project Concept (Proposed Conditions)	3
Figure 1-2	Common Indoor and Outdoor Sound Levels	5
Figure 1-3	Typical Vibration Levels and Sources	6
Figure 1-4	FTA Noise Impact Criteria	8
Figure 2-1	Noise Measurement Locations	10
Figure 2-2	Noise Receptor Locations	14

1 INTRODUCTION

The Washington Metropolitan Area Transit Authority (WMATA) plans to replace the existing Northern Bus Garage at 4615 14th Street NW in Washington, DC. Replacement of the existing bus garage is necessary as the existing facility has met its useful life and structural improvements are needed in order to maintain efficient storage/maintenance, replace deteriorating concrete conditions, better accommodate articulated buses, and reduce deadheading (non-revenue service). The existing facility is currently closed. Construction of the replacement garage is expected to begin in 2022 and be completed by 2026.

The facility is located on an approximately 5.25-acre site in northwest Washington, DC. The garage is bounded by 14th Street NW, Buchanan Street NW, Arkansas Avenue NW, and Iowa Avenue NW. WMATA plans to demolish the existing garage but maintain the building façade (constructed in 1906) along 14th Street NW. The replacement garage would be located entirely within the existing footprint of the current garage. The storage and maintenance capacity of the replacement garage would be 150 buses which is 25 fewer buses than the current capacity of 175 buses.

The upgraded facility relocates a portion of current employee parking from on-street parking in the surrounding neighborhood to on-site parking. Currently, there are 212 on-site parking spaces for employees and non-revenue vehicles. The proposed project would include 306 onsite parking spaces for employees and non-revenue vehicles as well as 20 parking spaces for retail employees on the roof of the new facility.

The new facility will continue to provide services such as cleaning (interior and exterior), inspections, fueling and washing, running repairs, parts storage, crew reporting and dispatching, and employee service and welfare areas. However, previous heavy repairs and paint booth services will no longer be conducted at the facility as a mitigation in response to community feedback. The detailed project concept is shown in **Figure 1-1**. The new facility will accommodate bus technology consisting of clean diesel, hybrid electric diesel, and battery electric buses (BEB).

This technical report includes the following:

- background information on noise and vibration descriptors,
- methodologies used to evaluate operational and construction-period noise and vibration,
- results of ambient sound measurements in the study area,
- predictions of future operational noise and construction noise and vibration conditions with the proposed Project,
- an assessment of potential impact according to applicable criteria, and
- an evaluation of the need for and potential effectiveness of mitigation recommendations.

Figure 1-1: Detailed Project Concept (Proposed Conditions)



1.1 BACKGROUND ON NOISE AND VIBRATION DESCRIPTORS

1.1.1 NOISE

Noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities such as sleep, work, or recreation. How people perceive sound depends on several measurable physical characteristics. These factors include:

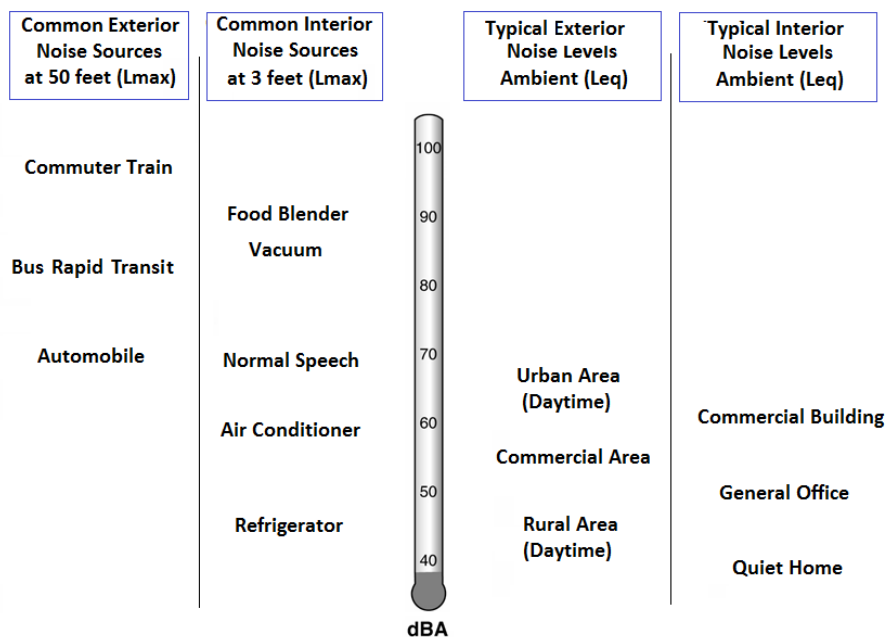
- Level - Sound level is based on the amplitude of sound pressure fluctuations and is often equated to perceived loudness.
- Frequency - Sounds are comprised of acoustic energy distributed over a variety of frequencies. Acoustic frequencies, commonly referred to as tone or pitch, are typically measured in Hertz (Hz). Pure tones have energy concentrated in a narrow frequency range and can be more audible to humans than sounds with a broad range of frequencies. Sound levels are most often measured on a logarithmic scale of decibels (dB). The decibel scale compresses the audible acoustic pressure levels which can vary from the threshold of hearing (0 dB) to the threshold of pain (120 dB). Because sound levels are measured in dB, the addition of two sound levels is not linear. Adding two equal sound levels results in a 3 dB increase in the overall level. Research indicates the following general relationships between sound level and human perception:
 - A 3-dB increase is a doubling of acoustic energy and is the threshold of perceptibility to the average person.
 - A 10-dB increase is a tenfold increase in acoustic energy and is perceived as a doubling in loudness to the average person.

Audible sound is comprised of acoustic energy over a range of frequencies typically from 20 to 20,000 Hz. The human ear does not perceive sound levels at each frequency as equally loud. To compensate for this phenomenon in perception, a frequency filter known as A weighting (dBA) is used to evaluate environmental noise levels. **Figure 1-2** presents a list of common outdoor and indoor sound levels.

Because sound levels change over time, a variety of sound level metrics can be used to describe environmental noise. The following is a list of sound level descriptors used in the noise analysis:

- Lmax is the maximum sound level generated by a source and does not account for how long the sound event occurs.
- Leq is the energy-average A-weighted sound level. The Leq is a single value that is equivalent in sound energy to the fluctuating levels over a period of time. Therefore, the Leq considers how loud noise events are during the period, how long they last, and how many times they occur. Leq is commonly used to describe environmental noise and relates well to human annoyance.
- Ldn is the day-night equivalent sound level. Similar to the Leq, the Ldn is a single value that is equivalent in sound energy to the fluctuating levels over a period of time and takes into account how loud noise events are, how long they last, and how many times they occur. The Ldn encompasses all sounds that are generated over a 24-hour period including a 10-decibel penalty for sounds that occur during the night (10 PM and 7 AM) to account for the increased sensitivity of people during typical sleeping hours.
- SEL is the sound exposure level. The SEL is a measure of the cumulative sound exposure from an event, such as a bus pass-by, that accounts for how loud an event is and how long it lasts. SELs are the building blocks used to compute Leq and Ldn sound levels.

Figure 1-2 Common Indoor and Outdoor Sound Levels



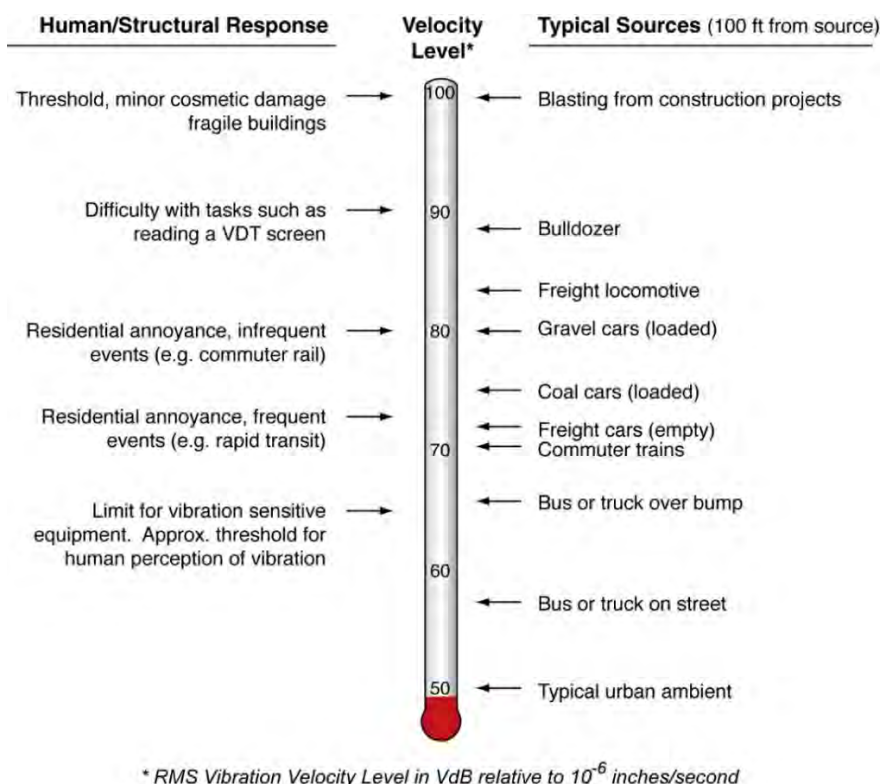
Source: FTA 2018, VHB 2020.

1.1.2 VIBRATION BACKGROUND

Ground-borne vibration is defined as the oscillatory motion of the ground. Vibration can be caused by heavy vehicles (i.e., buses, trucks, or trains) or by stationary construction equipment (i.e., impact pile driving, hoe rams, etc.). Vibration is commonly described in terms of velocity because it corresponds to how humans perceive vibration and the potential for structural damage to buildings.

Vibration levels from transit operations are often expressed in decibel notation as “VdB” to differentiate them from sound decibels. As shown in **Figure 1-3**, humans typically perceive vibration at 65 VdB, human annoyance can occur between 70 and 80 VdB, and the threshold the minor cosmetic damage of fragile buildings is approximately 100 VdB. Vibration levels from construction activities are often expressed as either decibels (VdB) or in peak-particle-velocity (PPV) in inches per second.

Figure 1-3 Typical Vibration Levels and Sources



Source: FTA 2018.

1.2 ASSESSMENT METHODOLOGY

The noise and vibration impact assessment has been conducted according to the FTA's guidance manual. The first step is to evaluate the level of assessment that is warranted due to the proposed Project. The FTA has three levels of impact assessment including a noise and vibration screening procedure, FTA General noise and vibration impact assessments, and FTA Detailed noise and vibration impact assessments. The screening procedure involves evaluating whether the proposed project has the potential to change operational noise or vibration conditions in the study area and, if so, whether there are noise sensitive receptors within the screening distances. As the facility is currently non-operational, existing noise conditions are determined based on the ambient noise conditions as measured in the field (December 2021) combined with the noise contributions from buses and automobiles traveling to and from the bus facility when the facility was last at peak operational status (June 2018). This approach was utilized in order to best represent the ambient conditions during the peak operational period, prior to the facility being closed, and to improve the accuracy of the noise and vibration impact determination. If there are receptors in the screening distance, there is the potential for noise or vibration impact and an FTA General assessment is usually warranted. FTA General assessments are typically conducted to evaluate potential impact for Categorical Exclusions or Environmental Assessments. Depending on the potential for impact, FTA Detailed assessments are generally only needed for Environmental Impact Statements.

1.2.1 STUDY AREA AND NOISE AND VIBRATION SCREENING

The proposed Project would slightly decrease the bus capacity of the facility compared to the 2018 operational conditions, increase the number of employee and retail parking spaces, and modify access points along the perimeter to increase safety and security. The proposed facility will remain fully

enclosed and employee parking will be located on the third floor open-air parking deck. These changes to the facility have the potential to change noise conditions which may adversely affect nearby noise-sensitive receptors.

The FTA noise screening distance for a bus facility with storage and maintenance is 350 feet from the outer boundary of the facility where there are no intervening buildings, and 225 feet where there are intervening buildings. Noise receptors within these screening distances include nearby residences west of 14th Street NW, Delafield Place NW, Iowa Avenue NW, Arkansas Avenue NW, Buchanan Street NW, and Decatur Street NW, and a church on Buchanan Street NW. Therefore, an FTA General noise assessment is warranted to assess potential impact and evaluate the need for mitigation.

The FTA vibration screening distance for bus projects is 50 feet for residential land uses and 100 feet for vibration-sensitive land uses such as research facilities with vibration-sensitive equipment, theaters or concert halls. There are no vibration-sensitive uses within 50 feet of the proposed Project. Buses generate vibration; however, because they are rubber-tired vehicles with suspension systems, it is unusual for buses to cause significant vibration. Typically, if perceptible vibration is generated from buses it is due to airborne sound from the bus exhaust causing windows to rattle or due to unusual discontinuities in the road surface such as potholes, bumps, or expansion joints. **Therefore, there will not be operational vibration impact and no further analysis is warranted.**

1.2.2 GENERAL NOISE ASSESSMENT METHODOLOGY

The FTA General assessment methodology includes defining the study area for noise and vibration assessment, identifying noise-sensitive receptors, characterizing the existing conditions through ambient sound measurements, predicting the potential increase in future noise conditions, assessing impact according to applicable criteria, and recommending mitigation measures, as needed.

Study Area and Receptors

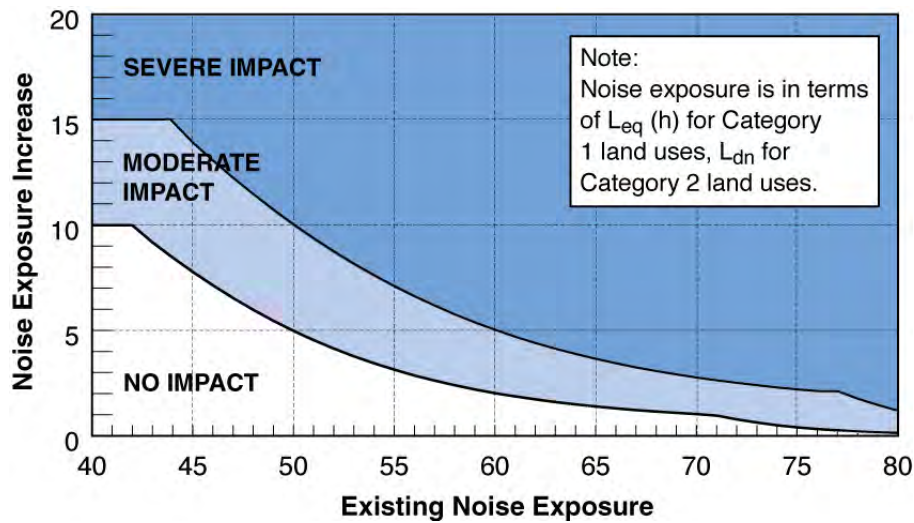
The study area for assessing noise includes sensitive receptors within 350 feet from the proposed facility. This includes residences, schools, and churches in the area. The FTA categorizes noise-sensitive land uses into the following three categories:

- Category 1: Buildings or parks where quiet is an essential element of their purpose.
- Category 2: Residences and buildings where people normally sleep. This includes residences, hospitals, and hotels where nighttime sensitivity is assumed to be of utmost importance.
- Category 3: Institutional land uses with primarily daytime and evening use where noise could interfere with concentration, meditation or reading activities. This category includes schools, libraries, churches and parks with passive recreational use.

Noise Impact Criteria

Noise impact criteria for transit operations are defined by the FTA and are founded on well-documented research on community reaction to noise. Since the proposed Project would change existing noise sources associated with the existing facility, noise impact has been assessed based on the increase in cumulative noise levels. As shown in **Figure 1-4**, FTA noise impact criteria are based on the potential for noise to increase due to the proposed Project. Impact is based on a comparison of the Existing noise levels with the noise increase. The FTA defines two levels of noise impact: moderate and severe. Severe noise impacts have the greatest adverse impact on the community and mitigation should be strongly considered. Areas with Moderate noise impact also have the potential for effects on the community and mitigation should be considered and implemented when considered reasonable and feasible depending on factors such as whether the mitigation would be safe, constructible, acoustically effective and cost-effective.

Figure 1-4 FTA Noise Impact Criteria



Source: FTA 2018.

Ldn is used to characterize noise exposure for residential areas (Category 2). For other noise sensitive land uses, such as schools and churches (Category 3), the maximum 1-hour Leq during peak transit activity which also coincides with the facility's operating period is used. For example, if a school is in operation between 8 A.M. and 3 P.M., the maximum 1-hour Leq would typically be during the peak morning transit service between 8 A.M. and 9 A.M.

Noise Predictions

Noise predictions include the contribution buses and automobiles that would travel to and from the bus facility, the rooftop parking, and other ambient sources which typically include background traffic noise. Existing and Future noise levels from the proposed bus facility have been predicted based on the methods described in the FTA guidance manual for General Assessment to determine changes in the future cumulative noise level. This includes predicting the change in noise between the existing and proposed bus operating facility including the bus movements to and from the facility and rooftop parking operations.

The FTA methodology for predicting noise is based on the number of buses and automobiles that access the facility per hour during the day and night and the number of parking spaces. Noise from these sources is predicted at nearby receptor locations based on the distance from the receptors to the center of the parking areas and whether there are intervening buildings that would attenuate sound. Sound from the diesel bus movements are based on an SEL of 82 dBA at 50 feet and 50 mph with a speed coefficient (which adjusts sound level for bus speed) of 15. The following equation is used to predict daytime and nighttime Leq sound levels from the proposed parking area source.

$$\text{Parking Area: } Leq_{at 50 \text{ feet}} = SEL_{at 50 \text{ feet}} + 10 \left(\frac{N_A}{1000} \right) - 35.6$$

Where,

$$N_A = \text{number of automobiles per hour during the day or night}$$

The 2018 capacity of the bus facility when the facility was previously operational, was 175 buses and the proposed facility is 150 buses. There would be a total of approximately 405 incoming and outgoing bus movements at the facility per day with 270 bus movements during the daytime (7:00 AM to 10:00

PM) and 135 bus movements during the nighttime (10:00 PM to 7:00 AM). There would be 45 hourly bus movements during the peak periods, with approximately 23 buses per hour entering at the southern access point and 23 buses per hour exiting at the northern access point. It is assumed that 39 hourly employee trips in and out of the parking deck would occur during the day and 30 at night.

2 NOISE MEASUREMENT RESULTS

Ambient sound measurements were conducted for one hour in duration each on December 2, 2021 and December 3, 2021 at five locations (Sites M1 to M5) representative of sensitive land use in the study area as shown in **Figure 2-1**. Measurement locations were selected based on their proximity to previously existing and proposed noise sources at the facility as well as the need to be representative of the various noise-sensitive land uses within the study area. The measurements were conducted with a Larson Davis model LxT which meets Type 1 accuracy according to the American National Standards Institute. The meter was calibrated in the field and by a laboratory traceable to the National Institute of Standards and Technology. Measurements were conducted for one hour during the midday period at each location. Observations were made of the predominant sources of sound and atmospheric conditions including temperature, wind speed, wind direction, and precipitation. Traffic counts were conducted by vehicle type and speed at all locations.

The ambient sound measurements ranged from 51.2 to 66.4 dBA (Leq). Day-night average sound levels were estimated based on the one-hour daytime measurements according to the FTA method of Ldn being 2 dBA less than the daytime Leq. The estimated day-night average sound levels ranged from 49.2 to 64.4 dBA (Ldn). The predominant sources of sound were background traffic noise.

Table 2-1 Noise Measurement Results

Site	Address	Start Time	Hourly-Equivalent Sound Level (Leq, dBA)	Estimated Day-Night Average Sound Level (Ldn, dBA)
M1	4805 14th St NW	11:18 AM	64.3	62.3
M2	4701 Iowa Ave	11:24 AM	63.2	61.2
M3	4704 13th St NW	12:42 PM	57.0	55.0
M4	1350 Buchanan St NW	1:53 PM	66.4	64.4
M5	1416 Buchanan Ave NW	10:12 AM	51.2	49.2

Source: VHB 2022.

Figure 2-1 Noise Measurement Locations



2.1 NOISE IMPACT ASSESSMENT RESULTS

Table 2-2 and **Figure 2-2** present the results of the noise impact assessment conducted at 20 nearby noise-sensitive receptors. Noise receptors were selected based on land use, bus access points to the facility, bus routes, and proximity to bus facility noise sources within the 350-foot screening distance. Measured noise levels were applied to receptor locations based on land use, their proximity to similar existing noise sources, setback distances from existing noise sources, and the proximity of the measurement location to the receptor location. The table includes the land use category, address, the measurement location applied to each receptor, 2021 ambient noise level measured in the field, the noise level based on the bus operations in June 2018, the future condition (2026) noise level, the moderate and severe impact criteria based on the 2018 noise level, increase in noise level, and impact determination.

Noise levels from June 2018 include ambient noise measured in December 2021 combined with previous 2018 bus facility operational noise contributions (modeled based on facility operations at the time). The noise impact assessment shows that June 2018 noise levels range from 49.7 to 64.8 dBA (Ldn) at Category 2 land uses and ranged from 57.0 to 67.3 dBA (Leq) at Category 3 land uses.

The thresholds for moderate noise impact range from an increase of 1.4 to 5.1 dBA (Ldn) for Category 2 land uses and from 3.0 to 5.6 dBA (Leq) at Category 3 land uses. The future noise levels (which includes the 2021 ambient noise and the contribution from future bus facility noise sources) would range from 49.9 to 64.5 dBA (Ldn) at Category 2 land uses and from range from 57.0 to 67.3 dBA at Category 3 land uses.

The proposed Project would not increase noise levels at any nearby receptors. The Project would even decrease noise levels by up to 0.3 dBA at some of the closest receptors located near 14th Street NW and Decatur Street NW (R1, R2, and R19).

No moderate noise impacts and no severe noise impacts are expected to occur due to the proposed project and mitigation measures are not warranted. WMATA has committed to measures to minimize noise generated by the facility, including reducing the number of buses operating out of the facility from 175 to 150, reducing noise pollution due to rooftop mechanical units by completely enclosing the units on the west side and locating units on the east side behind a brick screen.

Table 2-2 Noise Impact Assessment Results

Receptor	Land Use Category	Address	Measurement Location	June 2018 ¹ Noise Level (dBA) ^A	Future ² Noise Level (dBA) ^A	Noise Increase Impact Criteria Based on 2018 Noise Level		Noise Increase (June 2018 to Future) (dBA) ^A	Impact
						Moderate (dBA) ^A	Severe (dBA) ^A		
1	2	4805 14th St NW	M1	64.8	64.5	1.4	3.6	-0.3	None
2	2	4804 14th St NW	M1	64.3	64.0	1.4	3.7	-0.3	None
3	2	1402 Delafield Pl NW	M1	62.3	62.3	1.6	4.3	0.0	None
4	2	1401 Delafield Pl NW	M1	63.4	63.2	1.5	4.0	-0.2	None
5	2	4817 14th St NW	M1	63.4	63.2	1.5	4.0	-0.2	None
6	2	4807 Iowa Ave NW	M2	61.3	61.3	1.8	4.6	0.0	None
7	2	1314 Decateur St NW	M2	61.2	61.2	1.8	4.6	0.0	None
8	3	4704 13th St NW	M3	57.0	57.0	5.6	10.4	0.0	None
9	2	4613 Arkansas Ave NW	M4	64.4	64.4	1.4	3.7	0.0	None
10	2	1318 Buchanan St NW	M4	64.4	64.4	1.4	3.7	0.0	None
11	2	4501 Arkansas Ave NW	M4	64.4	64.4	1.4	3.7	0.0	None
12	2	1325 Allison St NW	M4	64.4	64.4	1.4	3.7	0.0	None

Receptor	Land Use Category	Address	Measurement Location	June 2018 ¹ Noise Level (dBA) ^A	Future ² Noise Level (dBA) ^A	Noise Increase Impact Criteria Based on 2018 Noise Level		Noise Increase (June 2018 to Future) (dBA) ^A	Impact
						Moderate (dBA) ^A	Severe (dBA) ^A		
13	3	1350 Buchanan St NW	M4	67.3	67.3	3.0	6.4	0.0	None
14	2	4425 14th St NW	M4	64.4	64.4	1.5	3.8	0.0	None
15	2	4420 14th St NW	M1	62.4	62.4	1.7	4.3	0.0	None
16	2	4510 14th St NW	M1	63.7	63.5	1.5	4.0	-0.2	None
17	2	1404 Buchanan St NW	M5	49.9	49.8	5.0	10.1	-0.1	None
18	2	1406 Crittenden St NW	M5	49.7	49.6	5.1	10.2	-0.1	None
19	2	4724 14th St NW	M1	64.8	64.5	1.4	3.6	-0.3	None
20	2	1406 Decateur St NW	M1	62.3	62.3	1.6	4.3	0.0	None

¹ June 2018 Noise Level modeled based on 2021 ambient conditions and June 2018 bus operations

² Future Noise Level modeled for opening year (2026)

^A Noise levels are reported in Ldn for land use Category 2 and Leq for land use Category 3

Source: VHB 2022.

Figure 2-2 Noise Receptor Locations



2.2 CONSTRUCTION NOISE AND VIBRATION

2.2.1 CONSTRUCTION NOISE AND VIBRATION ORDINANCES AND STANDARDS

The FTA has guideline construction noise impact criteria; however, they are only used in locations where there are no local or state construction noise ordinances. Since there are local noise ordinances in the study area, FTA guideline criteria have not been used.

The District noise ordinance prohibits construction sound levels above 80 dBA (Leq) (except for pile driving) 25 feet from the outermost limits of the site between 7:00 AM and 7:00 PM unless the District grants a variance. From 7:00 PM to 7:00 AM, the District may limit construction activities to 65 dBA (Lmax) 25 feet from the outermost limits of the construction site for noise originating in an industrial zone.¹

Vibration generated by construction equipment has the potential to cause structural damage to buildings in very close proximity to construction activities and to annoy persons in nearby buildings. Certain construction activities have the potential for structural damage to nearby buildings such as those associated with drilling, earthwork, or concrete removal. The potential for an increased risk of damage from vibration depends on the specific construction activity and how the existing building is constructed. FTA criteria for potential structural damage are shown in **Table 2-3** in both vibration level (VdB) and peak-particle velocity (PPV) measured in inches per second.

Table 2-3 FTA Vibration Criteria for Potential Structural Damage

Building Category	Vibration Level (VdB)	Peak-Particle Velocity (in/s)
I. Reinforced-concrete, steel, or timber	102	0.5
II. Engineered concrete and masonry	98	0.3
III. Non-engineered timber and masonry	94	0.2
IV. Buildings extremely susceptible to vibration damage	90	0.12

Source: FTA 2018.

2.2.2 CONSTRUCTION NOISE ASSESSMENT

Construction noise predictions are based on the equipment typically used and the average utilization factors or duty cycles (i.e. the percentage of time during operating hours that the equipment operates under full power during each phase). Construction noise is based on the 8-hour Leq noise exposure over a typical construction period. Since construction noise is evaluated for typical conditions over a relatively long period of time, noise levels are predicted relative to the center of the construction area. Construction noise is assessed according to the District noise ordinance, which is a daytime limit of 80 dBA (Leq), at a distance of 25 feet from the outermost limits of the site which is approximately 250 feet or farther from the center of construction activities.

The specific construction equipment and methods that would be used for this project will be determined by the contractor. Equipment that would generally be used for this type of construction include and air compressor, backhoe, back-up alarms, concrete mixer, crane, dump truck, excavator, hoe ram, paver, and drill rig.

¹ DC Municipal Regulations Chapters 20–27.

Table 2-4 presents the equipment, maximum sound level, utilization factor, and Leq sound level typically used for constructing new maintenance buildings and parking decks. This table shows that construction noise 50 feet away would typically be 89 dBA (Leq). Based on sound propagation of 6-decibel reduction per doubling of distance, construction noise levels at 25 feet from the boundary of the facility would typically be 75 dBA (Leq). These construction noise levels are below the District noise ordinance of 80 dBA during the daytime and therefore no construction noise mitigation is warranted.

Table 2-4 Construction Noise Predictions

Equipment	Maximum Sound Level at 50 feet (dBA)	Utilization Factor	8-hr Equivalent Sound Level at 50 feet (dBA)
Air Compressor	80	40	76
Backhoe	80	40	76
Back-up Alarm	85	5	72
Concrete Mixer	85	40	81
Crane	85	16	77
Dump Truck	84	40	80
Excavator	85	40	81
Hoe Ram	90	10	80
Paver	85	50	82
Drill Rig	84	20	77
Total Construction Noise at 50 feet (Leq8h)			89
Total Construction Noise at 250 feet (25 feet from boundary) (Leq8h)			75

Source: FHWA 2006, FTA 2018, and VHB 2021.

2.3 CONSTRUCTION VIBRATION ASSESSMENT

Construction vibration is typically generated by earth-moving equipment such as loaded trucks and bulldozers, impact equipment such as hoe rams, and drilling rigs for setting foundations for the parking deck. As shown in **Table 2-5**, the distances away from this equipment where there is an increased risk of structural damage to nearby buildings is 20 feet or less depending on the sensitivity of the building to vibration. Since all the surrounding buildings are more than 40 feet from the project site, there is not a risk of structural damage from construction activities. Additionally, the final design for the facility has eliminated the need for blasting activities during construction, thereby further reducing the potential for vibration risk to surrounding structures.

Table 2-5 Typical Construction Vibration Sources Levels and Distances

Equipment	PPV at 25 feet (in/sec)	Distance to exceeding FTA criterion (feet)			
		Type I 0.5 in/s	Type II 0.3 in/s	Type III 0.2 in/s	Type IV 0.12 in/s
Loaded Truck	0.076	7	10	14	18
Small Bulldozer	0.003	1	1	2	2
Large Bulldozer	0.089	8	11	15	20
Hoe Ram	0.089	8	11	15	20
Drilling Rig	0.089	8	11	15	20

Source: FTA 2018 and VHB 2021.

2.4 CONSTRUCTION VIBRATION MONITORING

Vibration will be monitored via seismographs placed at the perimeter of the project at least 30 days prior to the start of construction to establish a baseline for comparison to construction-related vibration. All properties within 200 feet of the bus facility's property boundary will be offered the opportunity to receive a pre-existing condition survey prior to the start of construction. This survey will cover both the interior and exterior of the property being surveyed. Invitations to property owners will be sent 90 days prior to the start of construction.

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APPENDIX

Noise Measurement Site Photos

Measurement Site M1



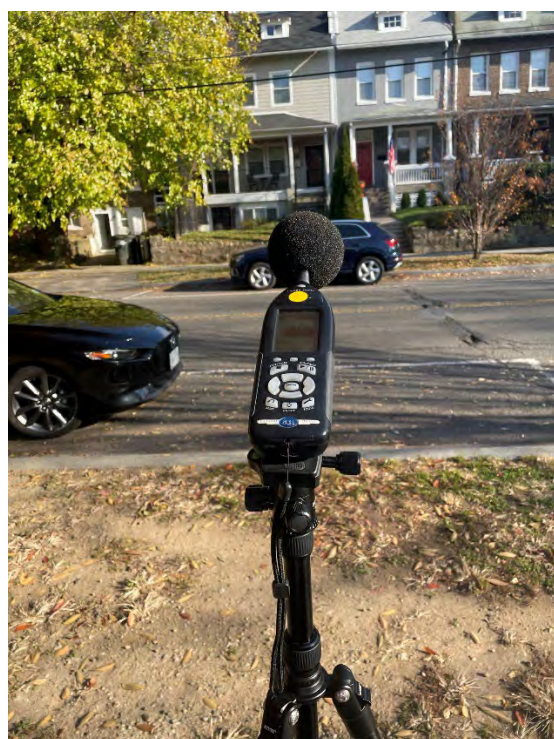
Noise Measurement M2



Measurement Site M3



Noise Measurement M4



Measurement Site M5



APPENDIX 11: HAZARDOUS MATERIALS SURVEYS

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GOVERNMENT OF THE DISTRICT OF COLUMBIA

Department of Energy and Environment
Environmental Services Administration



TOXIC SUBSTANCES DIVISION

UNDERGROUND STORAGE TANK BRANCH

NO FURTHER ACTION LETTER

September 28, 2017

Ms. Carla Grano
Washington Metropolitan Area Transit Authority
Office of Environmental Management & Industrial Hygiene
3500 Pennsy Drive
Landover, MD 20785

Re: FACILITY NAME: WMATA Northern Bus Division
FACILITY ADDRESS: 4615 14th Street, NW, Washington, DC 20011
FACILITY ID #: 4000709
LUSTCASE #: 89018

Dear Ms. Grano:

The Department of Energy and Environment (DOEE), Underground Storage Tank Branch (“UST Branch”), hereby issues this No Further Action Letter (NFA) in reference to the property located at 4615 14th Street NW, Washington, DC 20011 (“the Site”), for which Washington Metropolitan Area Transit Authority (WMATA), is listed as the Responsible Party (the “RP”), pursuant to the Underground Storage Tank Management Act of 1990 (D.C. Code § 8-113.01 *et seq.*) (the “Act”), and the District of Columbia Underground Storage Tank Regulations, as set forth at Title 20 of the District of Columbia Municipal Regulations (DCMR), Chapters 55-70.

The UST Branch has reviewed all information pertaining to the release and clean-up of regulated substances from the former underground storage tank system at the Site for consideration of no further action status. The most recent information submitted includes Letter Report for Closing Request and Quarterly Groundwater Monitoring Reports for 2017. To date, remediation at the Site made significant progress to remove free product and other residual contaminants. Residual LNAPL in monitoring wells, MW-3A and MW-8, remains present at last gauging event (December 28, 2016). However, as documented in the LNAPL Site Conceptual Model dated January 28, 2015 which includes LNAPL Tiered Risk Assessment, Plume Stability, and residual LNAPL is below established recoverability norms, and includes a holistic review of LNAPL characterization at the Site. DOEE concurs that LNAP is stable and relatively immobile for the purpose of establishing case closure.

Based on the information reviewed, it is the judgment of DOEE, UST Branch, that presently the residual contamination left in place at the Facility does not pose a threat to human health or the

environment. Accordingly, the UST Branch finds that **no further action** is necessary at the Facility for the Leaking Underground Storage Tank (LUST) Case # 89018.

The RP is responsible for removing all equipment and ensuring that monitoring wells are closed down, removed, grouted, and sealed properly in accordance with 20 DCMR § 6211.7, except monitoring wells MW-3A, MW-8, and MW-18 for the purpose of possible future long-term monitoring. These wells shall be closed with a waterproof sealed and locked well cap. Please note that approval from the DOEE Water Quality Division is required for well abandonment of all other monitoring wells.

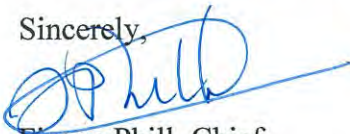
In the event that additional work is performed at the Facility that results in additional removal, disturbance, exacerbation, or excavation of residual contamination, constituting a release, then the person performing the work must report that release to this office, as required by 20 DCMR § 6202. Failure to do so may result in an enforcement action, pursuant to the Act and the regulations promulgated pursuant to the Act.

While District of Columbia has complied with the current LUST case closure requirements, the Act, and the regulations promulgated pursuant to the Act, this NFA shall not absolve the owner, operator, or a responsible party from previously incurred or potential future liability due to any residual contamination left in place.

Please note that DOEE is required to publish success stories in brochures, fact sheets, and on our website of District sites cleaned up and returned to productive use. As such, this Facility may be chosen for this purpose. Please inform our office in writing if you have any objections or concerns with DOEE using this Facility.

Should you have any question about this NFA, please call Nazmul Haque at 202-535-1330 or send an email to Nazmul.Haque@dc.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Fianna Phill', with a long horizontal flourish extending to the right.

Fianna Phill, Chief
Underground Storage Tank Branch

cc: Ms. Anna Hovsepyan, URS Corporation (via e-mail)

CONNOR

ENVIRONMENTAL
SERVICES AND
ENGINEERING
ASSESSMENTS

PREPARED FOR:

**WASHINGTON METROPOLITAN AREA
TRANSIT AUTHORITY
3101 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314**

**ASBESTOS-CONTAINING MATERIALS SURVEY
AT
NORTHERN BUS DIVISION
4615 14TH STREET, NW
WASHINGTON, D.C. 20011**

ENVIRONMENTAL SITE
ASSESSMENTS

ENGINEERING,
STRUCTURAL AND
MECHANICAL INSPECTIONS

LEAD PAINT SURVEYS

RISK ASSESSMENTS

CAPITAL NEEDS
ASSESSMENTS

ASBESTOS SURVEYS

EXPERT TESTIMONY

LEAD HAZARD
REDUCTION SUPPLIES

TRAINING

CLEANING SERVICES

PREPARED BY:

**CONNOR ENVIRONMENTAL SERVICES
AND ENGINEERING ASSESSMENTS
BARE HILLS BUSINESS CENTER
1421 CLARKVIEW ROAD, SUITE 100
BALTIMORE, MARYLAND 21209-2188**

CONTRACT NO.:

C74335 – ACM & LBP INSPECTIONS

RELEASE NO.:

C74335-005

SURVEY DATE:

JUNE 3-4, 1998

BARE HILLS BUSINESS CENTER
1421 CLARKVIEW ROAD
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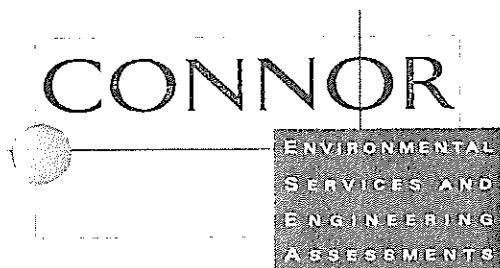


TABLE OF CONTENTS

<u>CATEGORY</u>	<u>PAGE</u>
EXECUTIVE SUMMARY	1
INTRODUCTION.....	2
ASSESSMENT APPROACH.....	3
PROJECT SITE RECONNAISSANCE	4
REGULATED ASBESTOS-CONTAINING MATERIALS (RACM).....	4
SAMPLING ACTIVITIES	4
DISCUSSION.....	10
CONCLUSIONS AND RECOMMENDATIONS	12
 APPENDICES	
Inspector Training Certification	Appendix A
Laboratory Certification and Analytical Results.....	Appendix B
Sample Location Maps	Appendix C
ACM Location Maps.....	Appendix D
Photographic Documentation	Appendix E

EXECUTIVE SUMMARY

On June 3-4, 1998, CONNOR Environmental Services & Engineering Assessments, a division of MIRCON, Inc., (the "Consultant") conducted an Asbestos-Containing Material (ACM) Survey at the Northern Bus Division. The following buildings were included in the survey:

- o Northern Bus Division
- o Regional Office Building

The following table shows all asbestos-containing materials, their location and their quantity as well as the condition and the method used to determine the presence of asbestos. The locations are presented on the maps in Appendix D.

MATERIAL	LOCATION	QUANTITY	CONDITION	METHOD
Orange 12" x 12" vinyl floor tiles	Transportation – telephone room	48 SF	Good	Laboratory analysis
Orange 12" x 12" vinyl floor tiles	Transportation – electrical room	48 SF	Good	Laboratory analysis
Orange 12" x 12" vinyl floor tiles	Transportation – storage room #1	100 SF	Good	Laboratory analysis
Orange 12" x 12" vinyl floor tiles	Transportation – vending room	480 SF	Good	Laboratory analysis
Orange 12" x 12" vinyl floor tiles	Transportation – lounge	2,220 SF	Good	Laboratory analysis
Orange 12" x 12" vinyl floor tiles	Transportation – office	190 SF	Good	Laboratory analysis
Green with white specks 12" x 12" vinyl floor tiles and mastic	Transportation – office	280 SF	Good	Laboratory analysis
Green with white specks 12" x 12" vinyl floor tiles and mastic	Transportation – men's locker room	1,100 SF	Good	Laboratory analysis
Roofing material	Roof	200,000 SF	Good	Assumed
Fire doors	Throughout	50 EA	Good	Assumed

INTRODUCTION

CONNOR Environmental Services & Engineering Assessments, a division of MIRCON, Inc., (the "Consultant") contracted with Washington Metropolitan Area Transit Authority (WMATA) (the "Client") to conduct Asbestos-Containing Materials Survey of the Northern Bus Division (the "Project Site"). The scope-of-services were outlined in the proposal dated November 13, 1997. These services have been incorporated into the Asbestos-Containing Materials Survey.

The purpose of this report ("Asbestos-Containing Materials Survey") is limited to providing the Client a limited environmental assessment concerning environmental conditions, specified in the report, and evident at the site at the time of the assessment. This Asbestos-Containing Materials Survey is designed only for the identification of environmental conditions and shall not be utilized for remediation or abatement. Consultant does not assume responsibility for the discovery and elimination of potential hazards that could cause accidents, injuries, or damage. This assessment includes conditions, operations, and practices as observed during the site walk through. Changes, procedural modifications, or facility renovations made after the site assessment are not included.

Surveyed by: John O'Connor

Written by: John O'Connor

Reviewed by: Timothy C. Connor, REA

Patrick T. Connor
Timothy C. Connor, REA
Vice President

10/16/98
Date

John O'Connor
John O'Connor

10/15/98
Date

ASSESSMENT APPROACH

An on-site Asbestos-Containing Materials Survey was conducted at the Northern Bus Division. (Inspector training certificates are included in Appendix A.) The weather condition was sunny with temperatures of 82 (°F). The assessment consisted of sampling suspect asbestos-containing materials pursuant to the requirements of the Code of Federal Regulations, Title 29 (Occupational Safety and Health), Part 1910 (Occupational Safety and Health Standards, Section 1001 (Asbestos), Subsection j (Communications of Hazards to Employees). The assessment was to be sufficient to enable Consultant to issue a professional opinion concerning the Project Site status (based on recorded fact) as related to the following regulated activities:

Determine if the Project Site contains, in the areas surveyed, the following:

- o **Materials containing greater than one percent (1%) asbestos** as determined using the method defined in the Code of Federal Regulations, Title 40 (Protection of Environment); Part 763 (Asbestos); Appendix A to Subpart F (Interim Method of the Determination of Asbestos in Bulk Insulation Samples); Section 1 (Polarized Light Microscopy). This includes materials (Category I Non-Friable, Category II Non-Friable and Friable) defined in the Code of Federal Regulations, Title 40 (Protection of Environment); Part 61 (National Emission Standards of Hazardous Air Pollutants); Subpart M (National Emission Standard for Asbestos); Section 141 (Definitions).

In addition, the assessment was conducted to satisfy the requirements of:

- o The Code of Federal Regulations, Title 29 (Occupational Safety and Health), Part 1910 (Occupational Safety and Health Standards, Section 1001 (Asbestos), Subsection j (Communications of Hazards to Employees).

The laboratory report lists the samples taken from the Project Site and the laboratory analysis results using polarized light microscopy with dispersion staining for asbestos (Interim Method for the Determination of Asbestos in Bulk Insulation Sample - EPA 600/M4-82-020). The Consultant does not assume responsibility for interpretation of test results beyond what is printed in this analytical report.

PROJECT SITE RECONNAISSANCE

Regulated Asbestos-Containing Materials (RACM)

No previous asbestos survey reports were available for this facility.

During the course of our assessment, suspect asbestos-containing materials (ACM) were observed in the following forms:

- o Suspect Category I Non-Friable material
 - Vinyl floor tiles and associated mastic
 - Sheet vinyl flooring
 - Roofing material
- o Suspect Category II Non-Friable material
 - Drywall
 - Joint compound
 - Plaster (smooth and rough)
 - Vibration clothes on HVAC systems
- o Suspect Friable material
 - Spray-on fireproofing
 - Pipe fitting insulation on fiberglass insulated pipe
 - 2' x 2' ceiling tiles
 - 2' x 4' ceiling tiles

Suspect asbestos-containing materials, observed in the form of roofing materials, were not sampled at the time of the assessment because effective roof repairs were not practical and sampling can invalidate existing roof warranties. Sampling of the roof may be done in conjunction with scheduled equipment installation or roof repairs. These materials must be presumed asbestos containing material (PACM) until sampling is conducted to confirm or deny the presence of asbestos.

Sampling Activities

Representative samples of the accessible suspect asbestos-containing materials were obtained. The following table lists the samples taken, their location/description, and the findings of the laboratory analysis results. Laboratory data sheets are contained in Appendix B. Sample locations are presented on maps in Appendix C.

SAMPLE NUMBER	LOCATION	DESCRIPTION	ASBESTOS CONTAINING YES/NO	PHOTO NUMBER
JOC01A1	Sales Office	Pink 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC01A2	Sales Office	Pink 12" x 12" vinyl floor tiles mastic	No	N/A
JOC01B1	Sales Office	Pink 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC01B2	Sales Office	Pink 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC01C1	Depot Clerk Office	Pink 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC01C2	Depot Clerk Office	Pink 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC02A	Regional Office 2 nd Floor Mechanical Room	Vibration cloth on HVAC	No	N/A
JOC02B	Regional Office 2 nd Floor Mechanical Room	Vibration cloth on HVAC	No	N/A
JOC02C	Regional Office 1 st Floor Mechanical Room	Vibration cloth on HVAC	No	N/A
JOC03A1	Supervisor Office	White 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC03A2	Supervisor Office	White 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC03B1	Regional Office 2 nd Floor South Foyer	White 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC03B2	Regional Office 2 nd Floor South Foyer	White 12" x 12" vinyl floor tiles mastic	No	N/A
JOC03C1	Transportation Office Area	White 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC03C2	Transportation Office Area	White 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC04A	Transportation Storage #1	2' x 4' ceiling tile, white, gypsum, 3/4"	No	N/A
JOC04B	Transportation Entrance	2' x 4' ceiling tile, white, gypsum, 3/4"	No	N/A

SAMPLE NUMBER	LOCATION	DESCRIPTION	ASBESTOS CONTAINING YES/NO	PHOTO NUMBER
JOC04C	Transportation Office Area	2' x 4' ceiling tile, white, gypsum, ¾"	No	N/A
JOC05A1	Men's Locker Room, Lower Level	White with black streaks, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC05A2	Men's Locker Room, Lower Level	White with black streaks, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC05B1	Men's Locker Room, Lower Level	White with black streaks, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC05B2	Men's Locker Room, Lower Level	White with black streaks, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC05C1	Men's Locker Room, Lower Level	White with black streaks, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC05C2	Men's Locker Room, Lower Level	White with black streaks, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC06A1	Mechanical Hallway	Tan with white streaks, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC06A2	Mechanical Hallway	Tan with white streaks, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC06B1	Mechanical Hallway	Tan with white streaks, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC06B2	Mechanical Hallway	Tan with white streaks, 12: x 12" vinyl floor tiles, mastic	No	N/A
JOC06C1	Women's Locker Room, Lower Level	Tan with white streaks, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC06C2	Women's Locker Room, Lower Level	Tan with white streaks, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC07A1	Mechanic Lunch Room	Beige 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC07A2	Mechanic Lunch Room	Beige 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC07B1	Mechanic Lunch Room	Beige 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC07B2	Mechanic Lunch Room	Beige 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC07C1	Mechanic Lunch Room	Beige 12" x 12" vinyl floor tiles, 1/8"	No	N/A

SAMPLE NUMBER	LOCATION	DESCRIPTION	ASBESTOS CONTAINING YES/NO	PHOTO NUMBER
JOC07C2	Mechanic Lunch Room	Beige 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC08A1	Mechanical Hallway	Light tan with white streaks, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC08A2	Mechanical Hallway	Light tan with white streaks, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC08B1	Mechanical Hallway	Light tan with white streaks, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC08B2	Mechanical Hallway	Light tan with white streaks, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC08C1	Mechanical Hallway	Light tan with white streaks, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC08C2	Mechanical Hallway	Light tan with white streaks, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC09A	Regional Office 2 nd Floor	Drywall – east wall	No	N/A
JOC09B	Transportation Office Area	Drywall – east wall	No	N/A
JOC09C	Transportation Office Area	Drywall – east wall	No	N/A
JOC10A	Regional Office 2 nd Floor	Joint compound – north wall	No	N/A
JOC10B	Transportation Office Area	Joint compound – east wall	No	N/A
JOC10C	Transportation Lounge	Joint compound – south wall	No	N/A
JOC11	Regional Office, 2 nd Floor South Foyer	Drywall/joint compound composite	No	N/A
JOC12A	C-Lot	Spray-On Fireproofing – Riser Beam	No	N/A
JOC12B	C-Lot	Spray-On Fireproofing – Riser Beam	No	N/A
JOC12C	C-Lot	Spray-On Fireproofing – Riser Beam	No	N/A
JOC12D	C-Lot	Spray-On Fireproofing – Riser Beam	No	N/A

SAMPLE NUMBER	LOCATION	DESCRIPTION	ASBESTOS CONTAINING YES/NO	PHOTO NUMBER
JOC12E	Upper Level Garage	Spray-On Fireproofing – Overhead Beam	No	N/A
JOC12F	Upper Level Garage	Spray-On Fireproofing – Overhead Beam	No	N/A
JOC12G	Upper Level Garage	Spray-On Fireproofing – Overhead Beam	No	N/A
JOC13A1	Transportation Storage #1	Orange 12" x 12" vinyl floor tiles, 1/8"	Yes	01
JOC13A2	Transportation Storage #1	Orange 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC13B1	Electric Room	Orange 12" x 12" vinyl floor tiles, 1/8"	Yes	01
JOC13B2	Electric Room	Orange 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC13C1	Telephone Room	Orange 12" x 12" vinyl floor tiles, 1/8"	Yes	01
JOC13C2	Telephone Room	Orange 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC14A1	Exercise Room	Speckled beige, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC14A2	Exercise Room	Speckled beige, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC14B1	Exercise Room	Speckled beige, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC14B2	Exercise Room	Speckled beige, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC14C1	Exercise Room	Speckled beige, 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC14C2	Exercise Room	Speckled beige, 12" x 12" vinyl floor tiles, mastic	No	N/A
JOC15A1	Men's Locker Room (Transportation)	Green with white specks, 12" x 12" vinyl floor tiles, 1/8"	Yes	02
JOC15A2	Men's Locker Room (Transportation)	Green with white specks, 12" x 12" vinyl floor tiles, mastic	Yes	02

SAMPLE NUMBER	LOCATION	DESCRIPTION	ASBESTOS CONTAINING YES/NO	PHOTO NUMBER
JOC15B1	Men's Locker Room (Transportation)	Green with white specks, 12" x 12" vinyl floor tiles, mastic	Yes	02
JOC15B2	Men's Locker Room (Transportation)	Green with white specks, 12" x 12" vinyl floor tiles, mastic	Yes	02
JOC15C1	Men's Locker Room (Transportation)	Green with white specks, 12" x 12" vinyl floor tiles, mastic	Yes	02
JOC15C2	Men's Locker Room (Transportation)	Green with white specks, 12" x 12" vinyl floor tiles, mastic	Yes	02
JOC16A	Regional Office 2 nd Floor Men's Room	Plaster ceiling	No	N/A
JOC16B	Regional Office 2 nd Floor Men's Room	Plaster ceiling	No	N/A
JOC16C	Men's Locker Room (Transportation)	Plaster wall	No	N/A
JOC16D	Transportation Lounge	Plaster wall	No	N/A
JOC16E	Transportation Lounge	Plaster wall	No	N/A
JOC17A1	Transportation Office Area	Dark marble 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC17A2	Transportation Office Area	Dark marble 12" x 12" vinyl floor tiles, marble	No	N/A
JOC17B1	Transportation Office Area	Dark marble 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC17B2	Transportation Office Area	Dark marble 12" x 12" vinyl floor tiles, marble	No	N/A
JOC17C1	Transportation Office Area	Dark marble 12" x 12" vinyl floor tiles, 1/8"	No	N/A
JOC17C2	Transportation Office Area	Dark marble 12" x 12" vinyl floor tiles, marble	No	N/A
JOC18A	Regional Office, Stairwell #3	Rough Plaster – Wall	No	N/A

SAMPLE NUMBER	LOCATION	DESCRIPTION	ASBESTOS CONTAINING YES/NO	PHOTO NUMBER
JOC18B	Regional Office, Stairwell #3	Rough Plaster – Wall	No	N/A
JOB18C	Regional Office, Stairwell #3	Rough Plaster – Wall	No	N/A
JOC19A	Regional Office 2 nd Floor South Foyer	2' x 2' ceiling tile, white, gypsum, ¾"	No	N/A
JOC19B	Regional Office Conference Room	2' x 2' ceiling tile, white, gypsum, ¾"	No	N/A
JOC19C	Regional Office 1 st Floor North Foyer	2' x 2' ceiling tile, white, gypsum, ¾"	No	N/A
JOC20A	Dispatch Shack	Yellow sheet vinyl flooring, 1/16"	No	N/A
JOC20B	Dispatch Shack	Yellow sheet vinyl flooring, 1/16"	No	N/A
JOC20C	Dispatch Shack	Yellow sheet vinyl flooring, 1/16"	No	N/A

Discussion

As indicated by the laboratory analysis results and assumed materials, the use of asbestos-containing materials was identified in the following form (Locations of ACM are presented on maps contained in Appendix D):

MATERIAL	LOCATION	QUANTITY	CONDITION	METHOD
Orange 12" x 12" vinyl floor tiles	Transportation – telephone room	48 SF	Good	Laboratory analysis
Orange 12" x 12" vinyl floor tiles	Transportation – electrical room	48 SF	Good	Laboratory analysis
Orange 12" x 12" vinyl floor tiles	Transportation – storage room #1	100 SF	Good	Laboratory analysis
Orange 12" x 12" vinyl floor tiles	Transportation – vending room	480 SF	Good	Laboratory analysis
Orange 12" x 12" vinyl floor tiles	Transportation – lounge	2,220 SF	Good	Laboratory analysis
Orange 12" x 12" vinyl floor tiles	Transportation – office	190 SF	Good	Laboratory analysis
Green with white specks 12" x 12" vinyl floor tiles and mastic	Transportation – office	280 SF	Good	Laboratory analysis

MATERIAL	LOCATION	QUANTITY	CONDITION	METHOD
Green with white specks 12" x 12" vinyl floor tiles and mastic	Transportation – men's locker room	1,100 SF	Good	Laboratory analysis
Roofing material	Roof	200,000 SF	Good	Assumed
Firedoors	Throughout	50 EA	Good	Assumed

The orange 12" x 12" vinyl floor tiles (Category I Non-Friable Material) were utilized in the following transportation areas: the Telephone Room, Electrical Room, Storage Room #1, Vending Room, Lounge and in the Transportation Office. The green with white specks vinyl floor tile and associated mastic (Category I Non-Friable Material) were used in the Transportation Office and in the Transportation Men's Locker Room. All materials were observed to be in good condition.

Asbestos-containing materials (ACM) such as these may be maintained in place by the use of an Operation and Maintenance (O&M) Program as defined in the EPA Managing Asbestos In Place: A Building Owner's Guide to Operations and Maintenance Programs for Asbestos Containing Materials. The O&M program, if carried out with prudence and diligence, should be sufficient to maintain the property in accordance with current applicable regulatory standards and sound business practices. The O&M program should include the elements identified in the Conclusions and Recommendations section of this report. Generally, asbestos-containing materials maintained with an O&M program can remain in-place for the life cycle of the individual system, provided the integrity of the material remains intact and undisturbed. Removal can be coordinated with renovations and/or modifications which may effect the ACMs.

CONCLUSIONS AND RECOMMENDATIONS

Develop and implement an Operations and Maintenance (O&M) Program that ensures the integrity of the non-friable materials. This program needs only to ensure that the non-friable materials are not sanded, ground or mechanically abraded to produce fibers. Non-friable materials have historically been shown not to be a significant environmental threat.

Any asbestos-containing materials that are scheduled to be disturbed due to planned renovations/remodeling must be abated in accordance with federal, state and local guidelines.

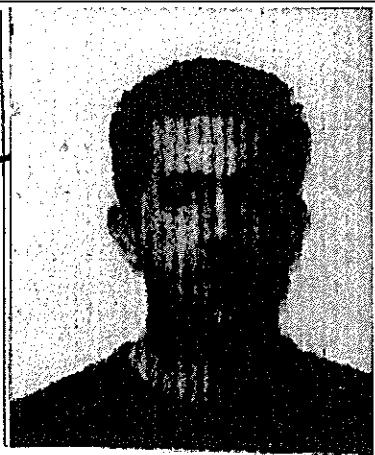
Building owners shall notify the following persons of the presence, location, and quantity of regulated asbestos-containing materials (**ACM**) or presumed asbestos-containing materials (**PACM**), at work sites in their buildings and facilities. Notification either shall be in writing, or shall consist of a personal communication between the owner and the person to whom notification must be given or their authorized representatives.

- o WMATA employees who will work in or adjacent to areas containing such material.
- o Prospective contractors applying or bidding for work whose employees reasonably can be expected to work in or adjacent to areas containing such material.

APPENDIX A

INSPECTOR TRAINING CERTIFICATION

John M. O'Connor
Name
Signature



HAS ATTENDED AND PASSED THE EXAM IN
AN ASBESTOS TRAINING COURSE ENTITLED:

Asb. Bldg. Insp. Ref.
Course Name

FOR ACCREDITATION UNDER TSCA TITLE II.

(STATE SEAL IS BLUE)

08/08/97 08/08/98 08/08/97
Course Date(s) Expiration Date Exam Date

NO. 032085 ETI STATE OF MARYLAND

Tr: Environmental Training
Ac: International, Inc.
Ci: 1702 Industrial Highway, Suite 7
Pf: Cinnaminson, NJ 08077
(609)829-3111 31-00-01
Roy Bowman Zip

Name of Training Director Signature of Training Director

For additional information, call MDE (410) 631-3801.



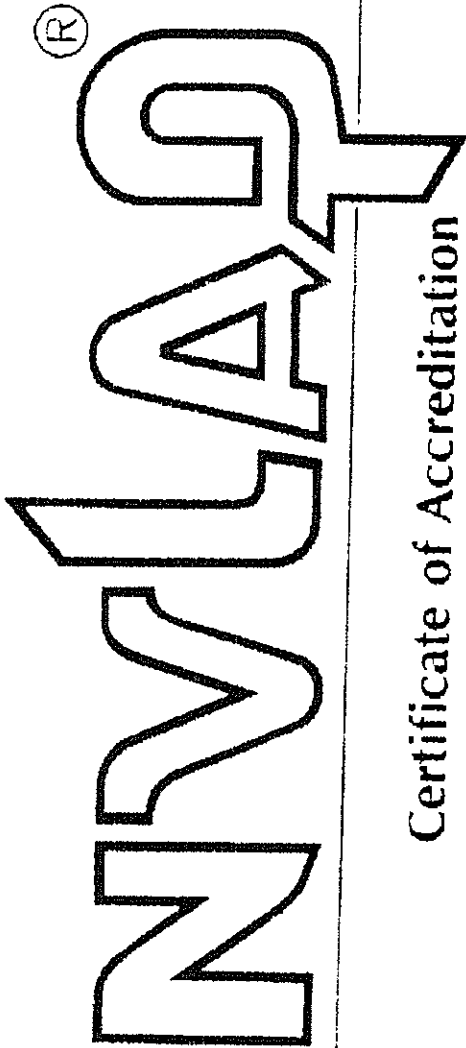
INSPECTOR TRAINING CERTIFICATION

CONNOR Environmental Services and Engineering Assessments
A Division of MIRCON, Inc.
Bare Hills Business Center
1421 Clarkview Road
Baltimore, MD 21209-2188

APPENDIX B

LABORATORY CERTIFICATION AND ANALYTICAL RESULTS

United States Department of Commerce
National Institute of Standards and Technology



ISO/IEC GUIDE 25:1990
ISO 9002:1987

Certificate of Accreditation



METROPOLITAN ENVIRONMENTAL TESTING SERVICES DBA METS LABORATORIES
WALDORF, MD

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 285 Code of Federal Regulations. These criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002 (ANSI/ASQC Q92-1987) as suppliers of calibration or test results. Accreditation is awarded for specific services, listed on the Scope of Accreditation for

BULK ASBESTOS FIBER ANALYSIS

June 30, 1999

from to through

for the National Institute of Standards and Technology

NVLAP Lab Code 200165-0

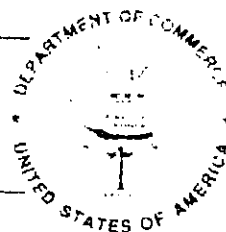
National Institute
of Standards and Technology



National Voluntary
Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Scope of Accreditation



Page: 1 of 1

BULK ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 200165-0

METROPOLITAN ENVIRONMENTAL TESTING SERVICES DBA METS LABORATORIES

179 Smallwood Village Center

Waldorf, MD 20602

Ms. Carrie A. Wright

Phone: 301-870-1995 Fax: 301-870-1701

NVLAP Code

Designation

181A01

U.S. EPA's "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" as found in 40 CFR, Part 763, Subpart F, App. A, or the current U.S. EPA method for the analysis of asbestos in building material.

June 30, 1999

Prepared through

A handwritten signature in black ink, appearing to read "John L. Galt".

For the National Institute of Standards and Technology



THE AMERICAN INDUSTRIAL HYGIENE ASSOCIATION
is proud to acknowledge that

Metropolitan Environmental Testing Services, Inc.
Waldorf, MD
Laboratory ID# 21506

has fulfilled the requirements for the Environmental Lead Laboratory Accreditation Program and has earned distinguished recognition as an

AIHA ELLAP ACCREDITED LABORATORY

06/05/1997 - 06/05/2000

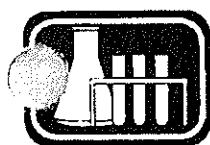
In the following matrices: Paint Soil Dust

This program is recognized by the EPA as meeting the requirements of the National Lead Laboratory Accreditation Program established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1991 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

Jack M. Hurd
Jack M. Hurd, Ph.D., CIH, CSP
President, American Industrial Hygiene Association

Don J. Hart
Don J. Hart, Ph.D., CIH
Chair, Analytical Accreditation Board

Don J. Hart
Don J. Hart, Ph.D., CIH
Chair, Analytical Accreditation Board


METS
LABORATORIES

179 Smallwood Village Center, Waldorf, Maryland, 20602

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 Toll Free: 800.604.1995
 Fax#: 301.870.1701

Bulk Asbestos Analysis Report

NY ELAP #11603, NVLAP #200165-0

Method EPA 600/R-93/116

Report Number 980605031

Account Number: 11-7804

Client Name: Connor Environmental Services

Address: 1421 Clarkview Rd Suite 100

Baltimore

MD 21209

Date Collected:

N/A

Date Received:

60598

Date Analyzed:

60998

Date Reported:

61098

Project: Northern Bus Division WMATA 809404

METS Sample No.	Client Sample ID	Asbestos Detected (Y/N)	Non Asbestos %	Asbestos / %	Color
980605031-001A	JOC01A Sales Office- pink 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-001B	JOC01A Sales Office-Pink 12x12 VFT- mastic	No	Cellulose 5, NANF 95	NAD	black
980605031-002A	JOC01B Sales Office-Pink 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-002B	JOC01B Sales Office-Pink 12x12 VFT- mastic	No	Cellulose 2, NANF 98	NAD	black
980605031-003A	JOC01C Depot Clerk Office Pink 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-003B	JOC01C Depot Clerk Office Pink 12x12 VFT- mastic	No	Cellulose 2, NANF 98	NAD	black
980605031-004	JOC02A Regional Office 2nd floor Mech Rm- vibration cloth on HVAC	No	Cellulose trace, Fiberglass 90, NANF 9+	NAD	black
980605031-005	JOC02B Regional Office 2nd floor Mech Rm- vibration cloth on HVAC	No	Cellulose trace, Fiberglass 85, NANF 14+	NAD	black
980605031-006	JOC02C Regional Office 1st floor Mech Rm- vibration cloth on HVAC	No	Cellulose trace, Fiberglass 70, NANF 29+	NAD	tan/blk

Note NAD = No Asbestos Detected, NANF = Non-Asbestos Non-Fibrous, * = Presence Noted, Trace = Trace Amounts Noted, < 1%

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 6/11/98 SAZ
 Reviewed By:
 Seyed Tadayon
 QA/QC Officer


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Method EPA 600/R-93/116

Report Number 980605031

Account Number: 11-7804

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Date Reported: 61098

Project: Northern Bus Division WMATA 809404

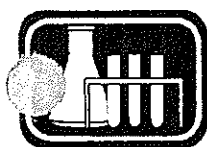
METS Sample No.	Client Sample ID	Asbestos Detected (Y/N)	Non Asbestos %	Asbestos / %	Color
980605031-007A	JOC03A Supervisor Office- white 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	gray
980605031-007B	JOC03A Supervisor Office- white 12x12 VFT- mastic	No	Cellulose 5, NANF 95	NAD	black
980605031-008A	JOC03B Regional Office 2nd fl south foyer- white 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	gray
980605031-008B	JOC03B Regional Office 2nd fl south foyer- white 12x12 VFT- mastic	No	Cellulose 2, NANF 98	NAD	tan
980605031-009A	JOC03C Transportation Office Area- white 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	white
980605031-009B	JOC03C Transportation Office Area- white 12x12 VFT- mastic	No	Cellulose 2, Synthetic 3, NANF 95	NAD	tan
980605031-010	JOC04A Transportation Storage #1	No	Cellulose 50, Mineral wool 30, NANF 20	NAD	tan/wht
980605031-011	JOC04B Transportation Entrance	No	Cellulose 50, Mineral wool 20, NANF 30	NAD	tan/wht
980605031-012	JOC04C Transportation Office Area	No	Cellulose 50, Mineral wool 20, NANF 30	NAD	tan/wht

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Bulk Asbestos Analysis Report

NY ELAP #11603, NVLAP #200165-0

Method EPA 600/R-93/116

Report Number 980605031

Account Number: 11-7804

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MD 21209

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Date Received: 60598

Date Analyzed: 60998

Date Reported: 61098

Project: Northern Bus Division WMATA 809404

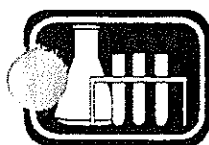
METS Sample No.	Client Sample ID	Asbestos Detected (Y/N)	Non Asbestos %	Asbestos / %	Color
980605031-013A	JOC05A Men's locker rm lower level white w/black streaks 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	gray
980605031-013B	JOC05A Men's locker rm lower level white w/black streaks 12x12 VFT-mastic	No	Cellulose 2, NANF 98	NAD	black
980605031-014A	JOC05B Men's locker rm lower level white w/black streaks 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	gray
980605031-014B	JOC05B Men's locker rm lower level white w/black streaks 12x12 VFT-mastic	No	Cellulose trace, NANF 99+	NAD	black
980605031-015A	JOC05C Men's locker rm lower level white w/black streaks 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	gray
980605031-015B	JOC05C Men's locker rm lower level white w/black streaks 12x12 VFT-mastic	No	Cellulose 5, NANF 95	NAD	black
980605031-016A	JOC06A Mechanical Hallway tan w/white streaks 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	brown
980605031-016B	JOC06A Mechanical Hallway tan w/white streaks 12x12 VFT- mastic	No	Cellulose 2, NANF 98	NAD	black
980605031-017A	JOC06B Mechanical Hallway tan w/white streaks 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	brown

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Bulk Asbestos Analysis Report

NY ELAP #11603, NVLAP #200165-0

Method EPA 600/R-93/116

Report Number 980605031

Account Number: 11-7804

Client Name: Connor Environmental Services

Address: 1421 Clarkview Rd Suite 100

Baltimore MD 21209

Date Collected: N/A

Date Received: 60598

Date Analyzed: 60998

Date Reported: 61098

Project: Northern Bus Division WMATA 809404

METS Sample No.	Client Sample ID	Asbestos Detected (Y/N)	Non Asbestos %	Asbestos / %	Color
980605031-017B	JOC06B Mechanical Hallway tan w/white streaks 12x12 VFT- mastic	No	Cellulose 3, NANF 97	NAD	dk brown
980605031-018A	JOC06C Women's locker rm lower level tan w/white streaks 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	brown
980605031-018B	JOC06C Women's locker rm lower level tan w/white streaks 12x12 VFT- mastic	No	Cellulose trace, NANF 99+	NAD	tan
980605031-019A	JOC07A Mechanic lunch rm beige 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-019B	JOC07A Mechanic lunch rm beige 12x12 VFT- mastic	No	Cellulose 5, NANF 95	NAD	black
980605031-020A	JOC07B Mechanic lunch rm beige 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-020B	JOC07B Mechanic lunch rm beige 12x12 VFT- mastic	No	Cellulose 3, NANF 97	NAD	black
980605031-021A	JOC07C Mechanic lunch rm beige 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-021B	JOC07C Mechanic lunch rm beige 12x12 VFT- mastic	No	Cellulose 5, NANF 95	NAD	black

Note: NAD = No Asbestos Detected NANF = Non-Asbestos Non-Fibrous. * = Presence Noted, Trace = Trace Amounts Noted, < 1%

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NY ELAP #11603, NVLAP #200165-0

Method EPA 600/R-93/116

Report Number 980605031

Account Number: 11-7804
 Client Name: Connor Environmental Services
 Address: 1421 Clarkview Rd Suite 100
 Baltimore MD 21209

Date Collected: N/A
 Date Received: 60598
 Date Analyzed: 60998
 Date Reported: 61098

Project: Northern Bus Division WMATA 809404

METS Sample No.	Client Sample ID	Asbestos Detected	Non Asbestos %	Asbestos / %	Color
980605031-022A	JOC08A Mechanical hallway light tan w/white streaks 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-022B	JOC08A Mechanical hallway light tan w/white streaks 12x12 VFT- mastic	No	Cellulose 5, NANF 95	NAD	black
980605031-023A	JOC08B Mechanical hallway light tan w/white streaks 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-023B	JOC08B Mechanical hallway light tan w/white streaks 12x12 VFT- mastic	No	Cellulose 3, NANF 97	NAD	black
980605031-024A	JOC08C Mechanical hallway light tan w/white streaks 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-024B	JOC08C Mechanical hallway light tan w/white streaks 12x12 VFT- mastic	No	Cellulose 3, NANF 97	NAD	brown
980605031-025	JOC09A Regional office 2nd floor drywall	No	Cellulose 20, NANF 80	NAD	gray/tan
980605031-026	JOC09B Transportation office area drywall	No	Cellulose 30, NANF 70	NAD	gray/tan
980605031-027	JOC09C Transportation office area drywall	No	Cellulose 25, NANF 75	NAD	gray/tan

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5/11/98 SAT
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Bulk Asbestos Analysis Report

NY ELAP #11603, NVLAP #200165-0

Method EPA 600/R-93/116

Report Number 980605031

Account Number: 11-7804

Client Name: Connor Environmental Services

Address: 1421 Clarkview Rd Suite 100
Baltimore MD 21209
 Date Collected: N/A
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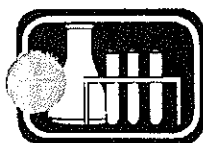
Project: Northern Bus Division WMATA 809404

METS Sample No.	Client Sample ID	Asbestos Detected	Non Asbestos %	Asbestos / %	Color
980605031-028	JOC10A Regional office 2nd floor joint compound	No	Cellulose trace, NANF 99+	NAD	tan
980605031-029	JOC10B Transportation office area joint compound	No	Cellulose trace, NANF 99+	NAD	tan
980605031-030	JOC10C Transportation lounge joint compound	No	Cellulose trace, NANF 99+	NAD	tan
980605031-031	JOC11 Regional office drywall/joint compound composite	No	Cellulose 20, NANF 80	NAD	tan/gray
980605031-032	JOC12A C-Lot spray-on fireproofing	No	Cellulose trace, NANF 99+	NAD	gray
980605031-033	JOC12B C-Lot spray-on fireproofing	No	Cellulose trace, NANF 99+	NAD	gray
980605031-034	JOC12C C-Lot spray-on fireproofing	No	Cellulose trace, NANF 99+	NAD	gray
980605031-035	JOC12D C-Lot spray-on fireproofing	No	Cellulose trace, NANF 99+	NAD	gray
980605031-036	JOC12E Upper Level garage spray-on fireproofing	No	Cellulose 20, NANF 80	NAD	tan

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Bulk Asbestos Analysis Report

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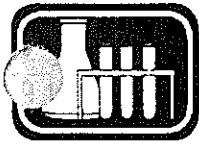
Project: Northern Bus Division WMATA 809404

METS Sample No.	Client Sample ID	Asbestos Detected (Y/N)	Non Asbestos %	Asbestos / %	Color
980605031-037	JOC12F Upper Level garage spray-on fireproofing	No	Cellulose 25, Fiberglass 10, NAF 65	NAD	tan
980605031-038	JOC12G Upper Level garage spray-on fireproofing	No	Cellulose 25, Fiberglass trace, NAF 74+	NAD	tan
980605031-039A	JOC13A Transportation storage #1 orange 12x12 VFT- fl tile	Yes	Cellulose trace, NAF 97+	Chrysotile 2	tan
980605031-039B	JOC13A Transportation storage #1 orange 12x12 VFT- mastic	No	Cellulose trace, NAF 99+	NAD	black
980605031-040A	JOC13B Electric Room Orange 12x12 VFT- fl tile	Yes	Cellulose trace, NAF 97+	Chrysotile 2	brown
980605031-040B	JOC13B Electric Room Orange 12x12 VFT- mastic	No	Cellulose trace, NAF 99+	NAD	black
980605031-041A	JOC13C Telephone Room Orange 12x12 VFT- fl tile	Yes	Cellulose trace, NAF 97+	Chrysotile 2	tan
980605031-041B	JOC13C Telephone Room Orange 12x12 VFT- mastic	No	Cellulose trace, NAF 99+	NAD	brown
980605031-042A	JOC14A Exercise Room speckled beige 12x12 VFT- fl tile	No	Cellulose trace, NAF 99+	NAD	brown

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980605031-042B	JOC14A Exercise Room speckled beige 12x12 VFT- mastic	No	Cellulose trace, Synthetic trace, NANF 99+	NAD	blk/tan
980605031-043A	JOC14B Exercise Room speckled beige 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-043B	JOC14B Exercise Room speckled beige 12x12 VFT- mastic	No	Cellulose trace, Synthetic trace, NANF 99+	NAD	tan
980605031-044A	JOC14C Exercise Room speckled beige 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	tan
980605031-044B	JOC14C Exercise Room speckled beige 12x12 VFT- mastic	No	Cellulose trace, Synthetic trace, NANF 99+	NAD	tan
980605031-045A	JOC15A Men's locker rm(transportation) grn w/wht specks 12x12 VFT- fl tile	Yes	Cellulose trace, NANF 96+	Chrysotile 3	gray
980605031-045B	JOC15A Men's locker rm(transportation) grn w/wht specks 12x12 VFT- mastic	Yes	Cellulose trace, NANF 94+	Chrysotile 5	black
980605031-046A	JOC15B Men's locker rm(transportation) grn w/wht specks 12x12 VFT- fl tile	Yes	Cellulose trace NANF 96+	Chrysotile 3	brown
980605031-046B	JOC15B Men's locker rm(transportation) grn w/wht specks 12x12 VFT- mastic	Yes	Cellulose trace, NANF 94+	Chrysotile 5	black

Note: NAD = No Asbestos Detected, NANF = Non-Asbestos Non-Fibrous, * = Presence Noted, Trace = Trace Amounts Noted, < 1%

These results apply only to the samples analyzed. Collection procedures, protocols, and sample locations are based on sampler and/or submitting company. Therefore, it is the policy of METS Laboratory to disclaim any knowledge of and liability for the accuracy of the information provided. This report will not be used by the Client to claim product endorsement by NVLAP or any other government agency and shall not be reproduced except in full without the written approval of METS Environmental Testing Services, Inc.

 6/11/98 SAT
 Reviewed By:
 Seyed Tadayon
 QA/QC Officer


METS
LABORATORIES

179 Smallwood Village Center, Waldorf, Maryland, 20602

 Metro: 301.870.1995
 Toll Free: 800.604.1995
 Fax#: 301.870.1701

Bulk Asbestos Analysis Report

NY ELAP #11603, NVLAP #200165-0

Method EPA 600/R-93/116

Report Number 980605031

Account Number: 11-7804

Client Name: Connor Environmental Services

Address: 1421 Clarkview Rd Suite 100

Baltimore MD 21209

Date Collected: N/A

Date Received: 60598

Date Analyzed: 60998

Date Reported: 61098

Project: Northern Bus Division WMATA 809404

METS Sample No.	Client Sample ID	Asbestos Detected (Y/N)	Non Asbestos %	Asbestos / %	Color
980605031-047A	JOC15C Men's locker rm(transportation) grn w/wht specks 12x12 VFT- fl tile	Yes	Cellulose trace, NANF 97+	Chrysotile 2	brown
980605031-047B	JOC15C Men's locker rm(transportation) grn w/wht specks 12x12 VFT- mastic	Yes	Cellulose trace, NANF 94+	Chrysotile 5	black
980605031-048	JOC16A Regional office 2nd fl men's rm- plaster ceiling	No	Cellulose trace, NANF 99+	NAD	tan
980605031-049	JOC16B Regional office 2nd fl women's rm- plaster ceiling	No	Cellulose trace, NANF 99+	NAD	tan/white
980605031-050	JOC16C Men's locker rm (transportation)- plaster wall	No	Cellulose trace, NANF 99+	NAD	wht/gray
980605031-051	JOC16D Transportation lounge-plaster wall	No	Cellulose trace, Fiberglass 2, NANF 97+	NAD	wht/gray
980605031-052	JOC16E Transportation lounge-plaster wall	No	Cellulose trace, Fiberglass trace, NANF 99+	NAD	tan
980605031-053A	JOC17A Transportation office area-dark marble 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	brown
980605031-053B	JOC17A Transportation office area-dark marble 12x12 VFT- mastic	No	Cellulose 5, Synthetic trace, NANF 94+	NAD	black

Note NAD = No Asbestos Detected, NANF = Non-Asbestos Non-Fibrous, * = Presence Noted, Trace = Trace Amounts Noted, < 1%

These results apply only to the samples analyzed. Collection procedures, protocols, and sample locations are based on sampler and/or submitting company. Therefore, it is the policy of METS Laboratory to disclaim any knowledge of and liability for the accuracy of the information provided. This Report will not be used by the Client to claim product endorsement by NVLAP or any other government agency and shall not be reproduced except in full without the written approval of METS Environmental Testing Services, Inc.

 6/11/98 SAT
 Reviewed By:
 Sayed Tadayon
 QA/QC Officer


METS
LABORATORIES

179 Smallwood Village Center, Waldorf, Maryland, 20602

 Metro: 301.870.1995
 Toll Free: 800.604.1995
 Fax#: 301.870.1701

Bulk Asbestos Analysis Report

NY ELAP #11603, NVLAP #200165-0

Method EPA 600/R-93/116

Report Number 980605031

Account Number: 11-7804
 Client Name: Connor Environmental Services
 Address: 1421 Clarkview Rd Suite 100
 Baltimore MD 21209

Date Collected: N/A
 Date Received: 60598
 Date Analyzed: 60998
 Date Reported: 61098

Project: Northern Bus Division WMATA 809404

METS Sample No.	Client Sample ID	Asbestos Detected (Y/N)	Non Asbestos %	Asbestos / %	Color
980605031-054A	JOC17B Transportation office area-dark marble 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	multi
980605031-054B	JOC17B Transportation office area-dark marble 12x12 VFT- mastic	No	Cellulose 10, Synthetic 5, NANF 85	NAD	black
980605031-055A	JOC17C Transportation office area-dark marble 12x12 VFT- fl tile	No	Cellulose trace, NANF 99+	NAD	multi
980605031-055B	JOC17C Transportation office area-dark marble 12x12 VFT- mastic	No	Cellulose 10, Synthetic 5, NANF 85	NAD	black
980605031-056	JOC18A Regional office stairwell #3-rough plaster	No	Cellulose trace, NANF 99+	NAD	gray/tan
980605031-057	JOC18B Regional office stairwell #3-rough plaster	No	Cellulose trace, NANF 99+	NAD	tan
980605031-058	JOC18C Regional office stairwell #3- rough plaster	No	Cellulose trace, NANF 99+	NAD	tan
980605031-059	JOC19A Regional office 2nd floor south foyer 2x2 ceiling tile	No	Cellulose 50, Mineral Wool 20, NANF 30	NAD	tan/wht
980605031-060	JOC19B Regional office conference room 2x2 ceiling tile	No	Cellulose 50, Mineral Wool 30, NANF 20	NAD	tan/wht

Note: NAD = No Asbestos Detected, NANF = Non-Asbestos Non-Fibrous, * = Presence Noted, Trace = Trace Amounts Noted, < 1%

These results apply only to the samples analyzed. Collection procedures, protocols, and sample locations are based on sampler and/or submitting company. Therefore, it is the policy of METS Laboratory to disclaim any knowledge of and liability for the accuracy of the information provided. This Report will not be used by the Client to claim product endorsement by NVLAP or any other government agency and shall not be reproduced except in full without the written approval of METS Environmental Testing Services, Inc.

**METS**
LABORATORIES

179 Smallwood Village Center, Waldorf, Maryland, 20602

Metro: 301.870.1995
Toll Free: 800.604.1995
Fax#: 301.870.1701

Bulk Asbestos Analysis Report

NY ELAP #11603, NVLAP #200165-0

Method EPA 600/R-93/116

Report Number 980605031

Account Number: 11-7804

Client Name: Connor Environmental Services

Address: 1421 Clarkview Rd Suite 100

Baltimore MD 21209

Date Collected: N/A

Date Received: 60598

Date Analyzed: 60998

Date Reported: 61098

Project: Northern Bus Division WMATA 809404

METS Sample No.	Client Sample ID	Asbestos Detected (Y/N)	Non Asbestos %	Asbestos / %	Color
980605031-061	JOC19C Regional office 1st floor north foyer 2x2 ceiling tile	No	Cellulose 50, Mineral Wool 40, NANF 10	NAD	tan/wht
980605031-062	JOC20A Dispatch shack yellow sheet vinyl flooring	No	Cellulose 50, NANF 50	NAD	multi
980605031-063	JOC20B Dispatch shack yellow sheet vinyl flooring	No	Cellulose 50, NANF 50	NAD	multi
980605031-064	JOC20C Dispatch shack yellow sheet vinyl flooring	No	Cellulose 70, NANF 30	NAD	multi

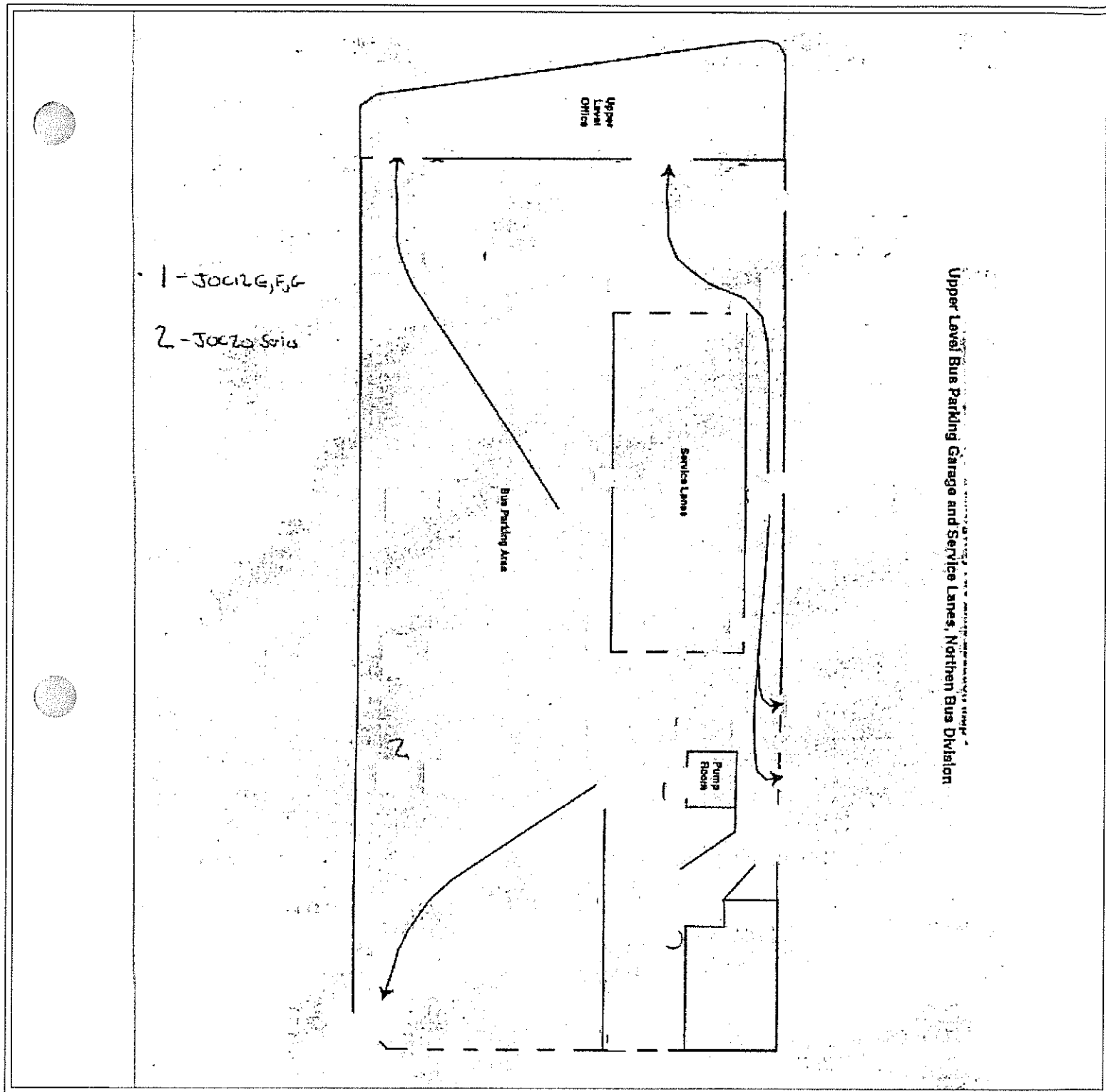
Note: NAD = No Asbestos Detected, NANF = Non-Asbestos Non-Fibrous, * = Presence Noted, Trace = Trace Amounts Noted, < 1%

These results apply only to the samples analyzed. Collection procedures, protocols, and sample locations are based on sampler and/or submitting company. Therefore, it is the policy of METS Laboratory to disclaim any knowledge of and liability for the accuracy of the information provided. This report will not be used by the Client to claim product endorsement by NVLAP or any other government agency and shall not be reproduced except in full without the written approval of METS Environmental Testing Services, Inc.

6/11/98 SAT
Reviewed By:
Sayed Tadayon
QA/QC Officer

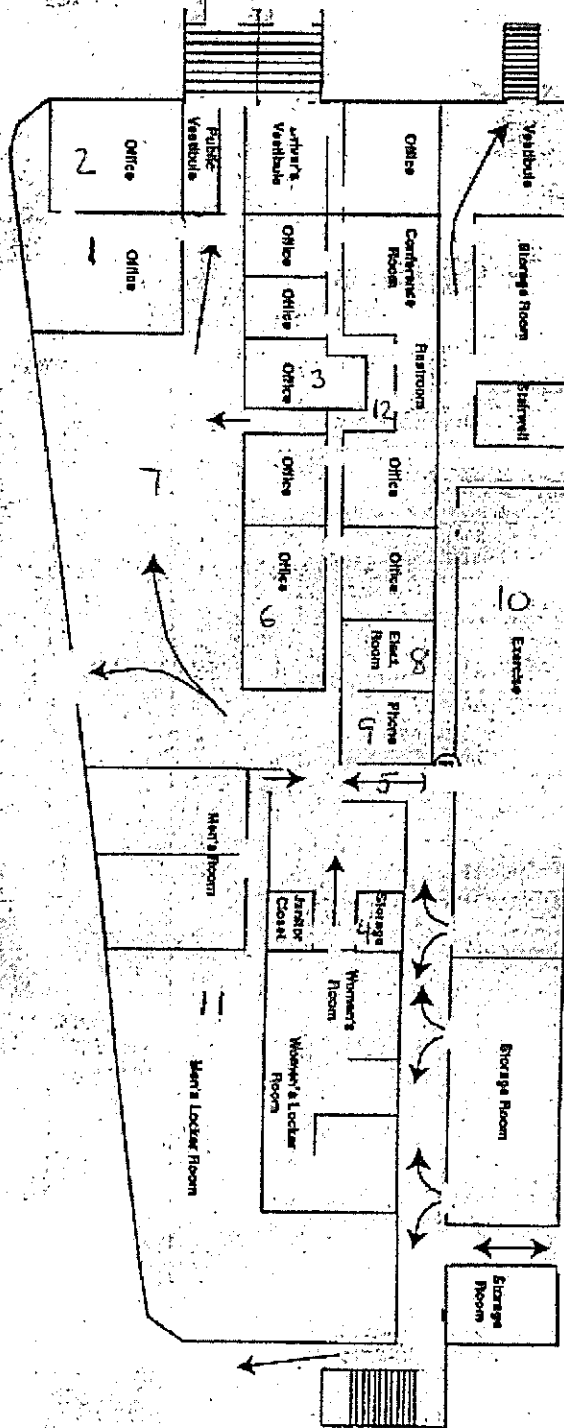
APPENDIX C

SAMPLE LOCATION MAPS

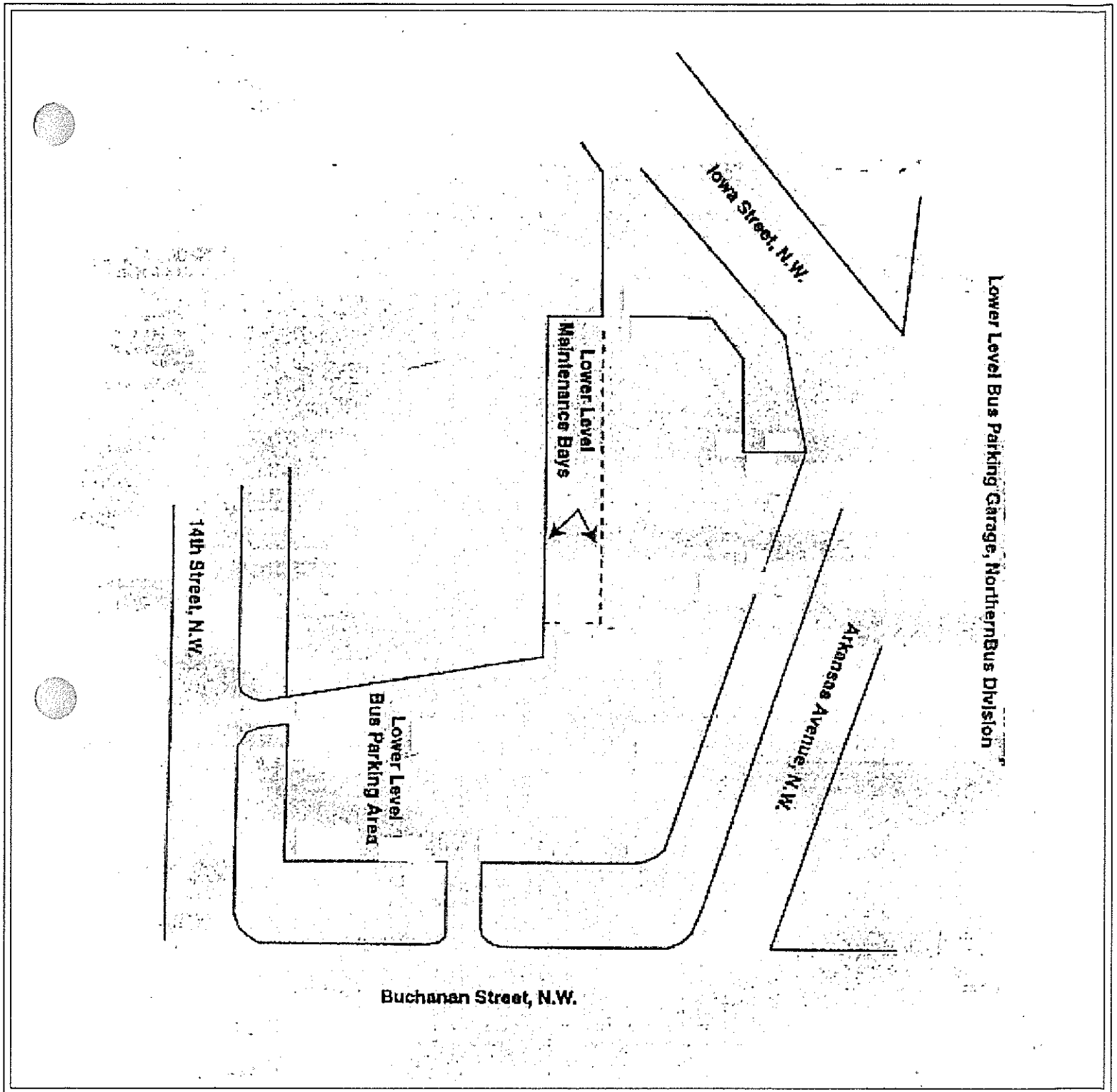


SAMPLE LOCATION MAP

- 1 - JOC01C1,2
- 2 - JOC01A1,2,B1,2
- 3 - JOC03C1,2
JOC04C
JOC04B
JOC10B
- 4 - JOC04A
JOC13A1,2
- 5 - JOC04B
- 6 - JOC04C
- 7 - JOC10C
JOC16D,E
- 8 - JOC13B1,2
- 9 - JOC13C1,2
- 10 - JOC14 Series
- 11 - JOC15 Series
JOC16C
- 12 - JOC17 Series



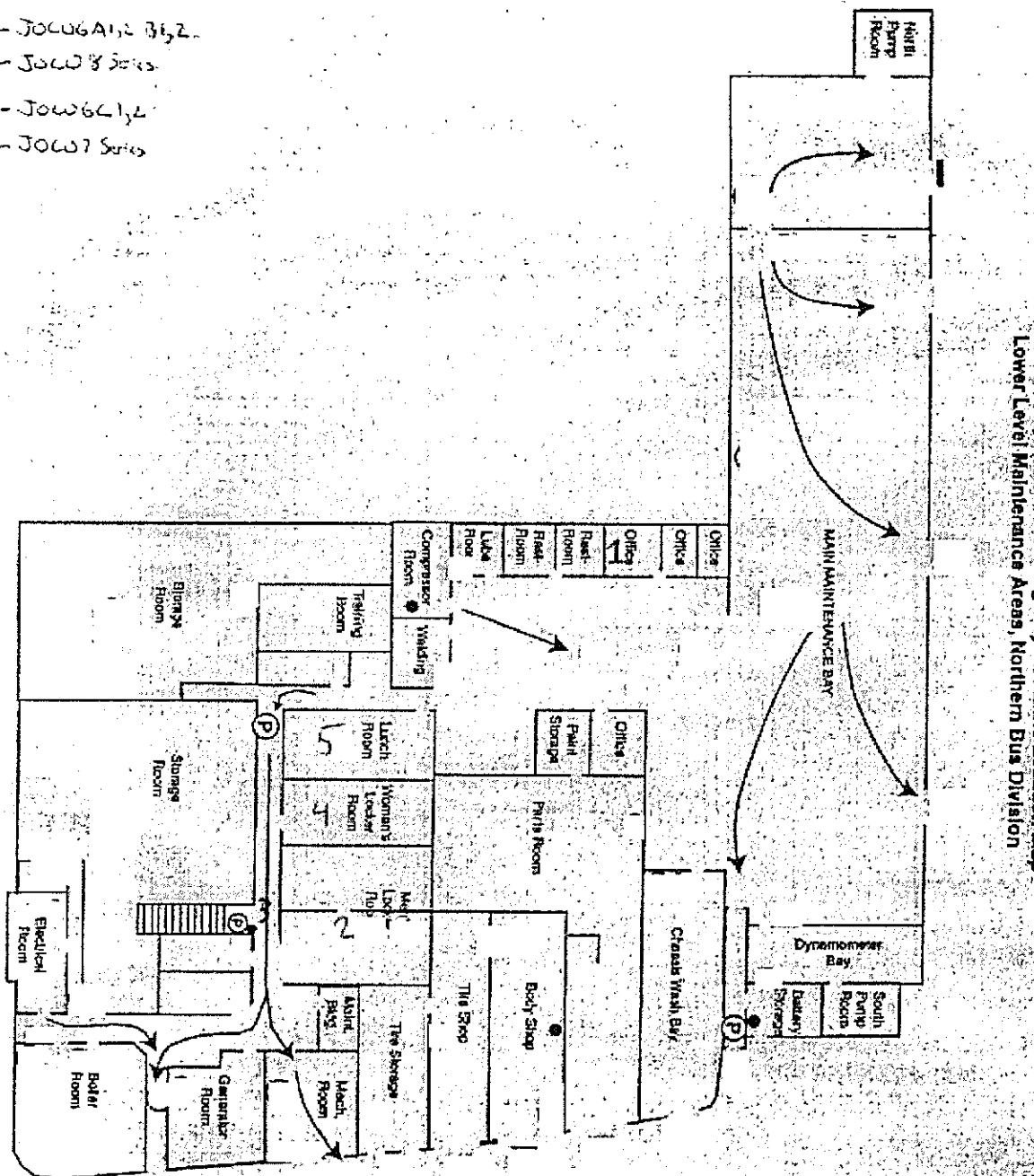
SAMPLE LOCATION MAP



SAMPLE LOCATION MAP

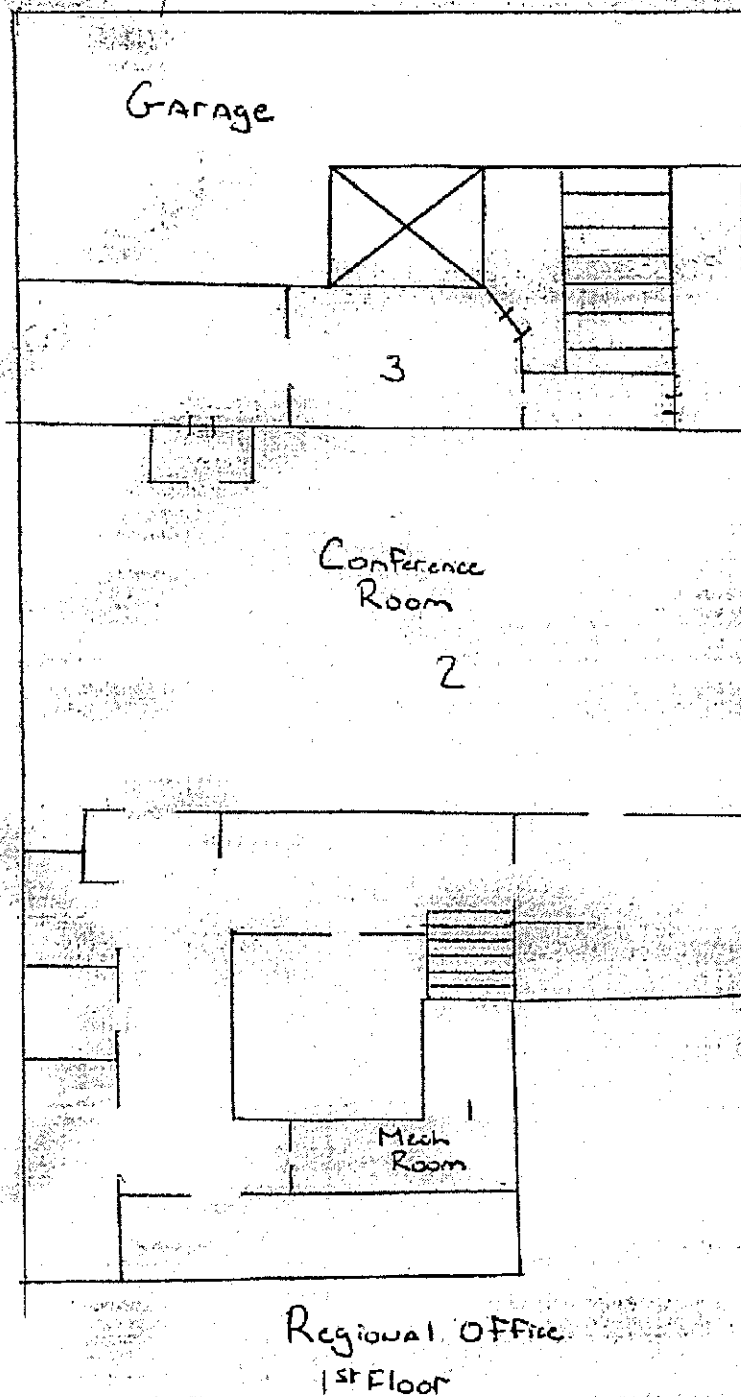
CONNOR Environmental Services and Engineering Assessments
A Division of MIRCON, Inc.
Bare Hills Business Center
1421 Clarkview Road
Baltimore, MD 21209-2188

- 1-JOW3A1,2
- 2-JOW3 Series
- 3-JOW6A1,2 B1,2
- 4-JOW3 Series
- 4-JOW6A1,2
- 5-JOW7 Series



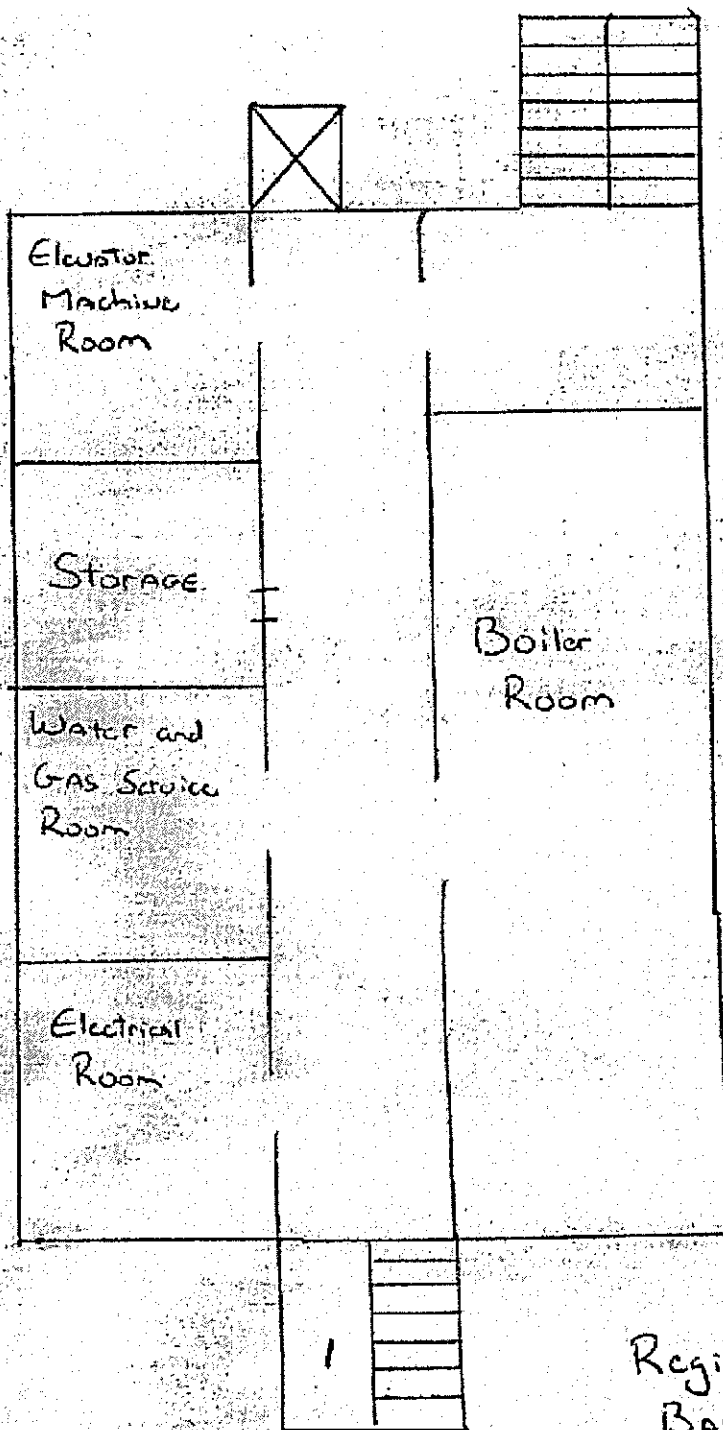
SAMPLE LOCATION MAP

1-JUL02C
2-JUL98
3-JUL98



SAMPLE LOCATION MAP

1-JOC18 Series

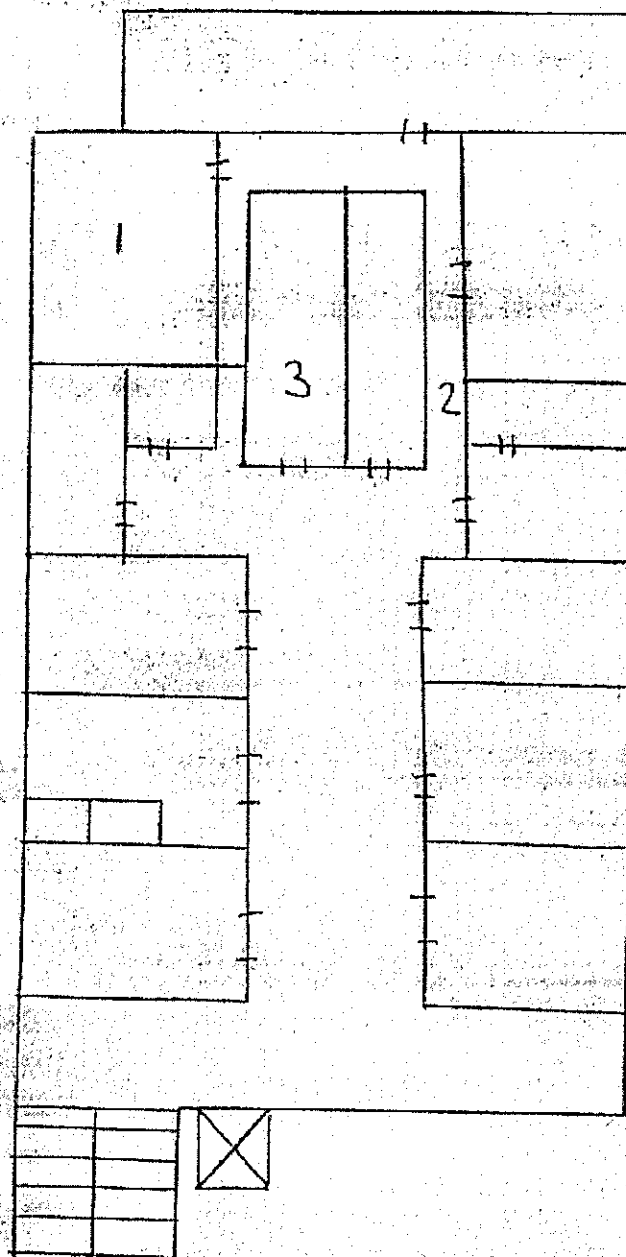


SAMPLE LOCATION MAP

1-JOC02A
JOC02B

2-JOC03B,2
JOC09A
JOC10A
JOC11
JOC19A

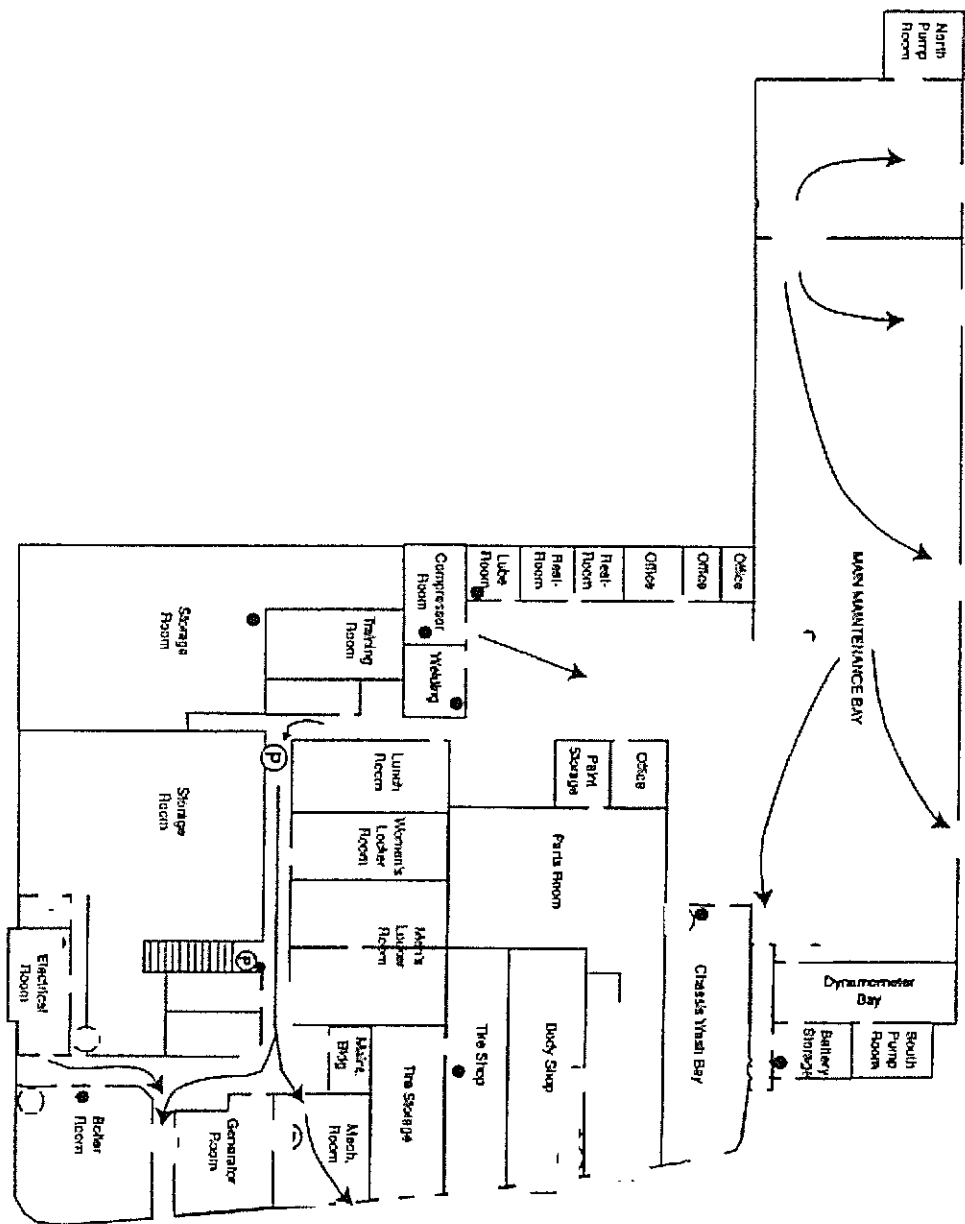
3-JOC16A,B



Regional Office
2nd Floor

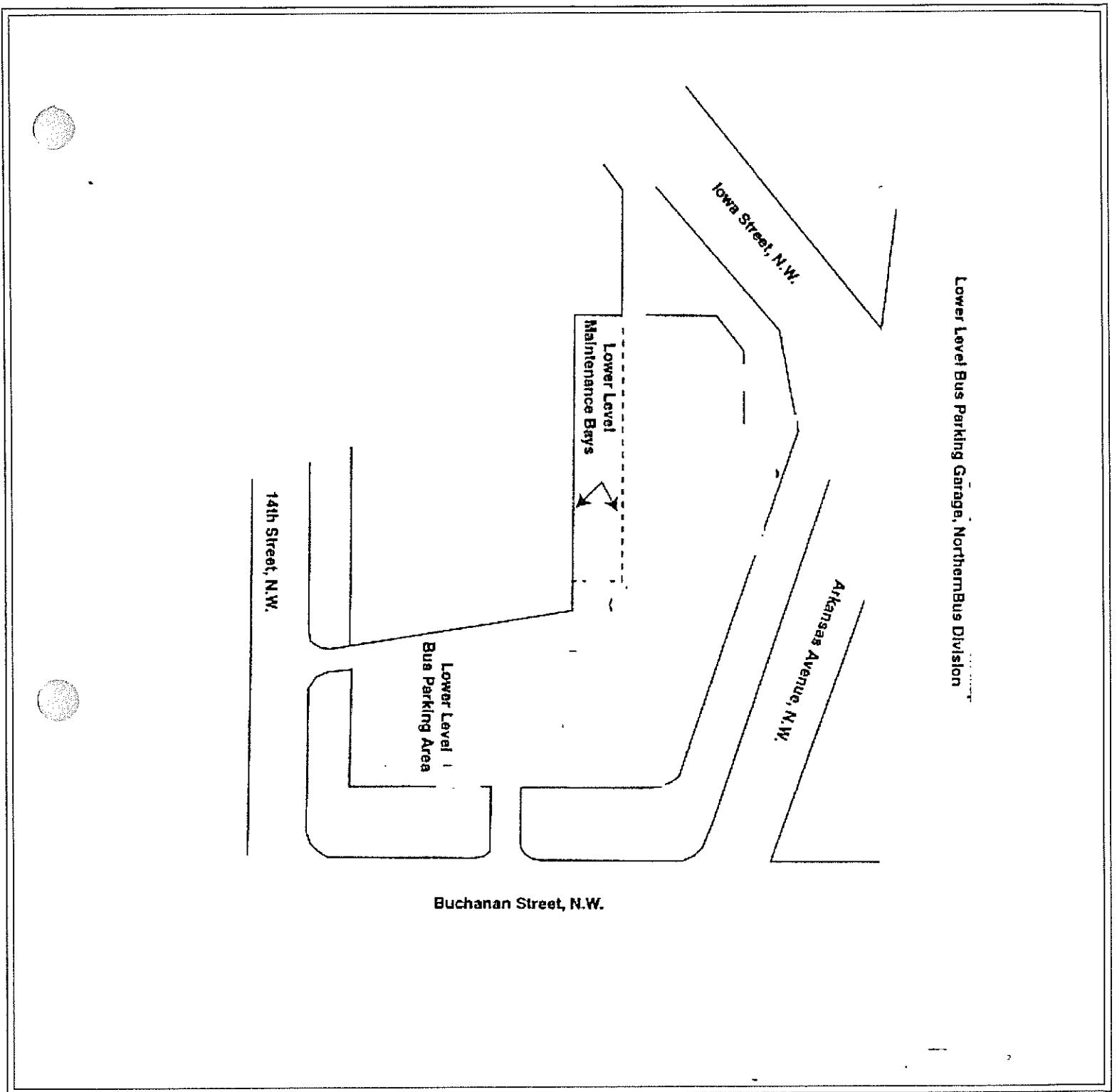
SAMPLE LOCATION MAP

APPENDIX D
ACM LOCATION MAPS



Lower Level Maintenance Areas, Northern Bus Division

ACM LOCATION MAP



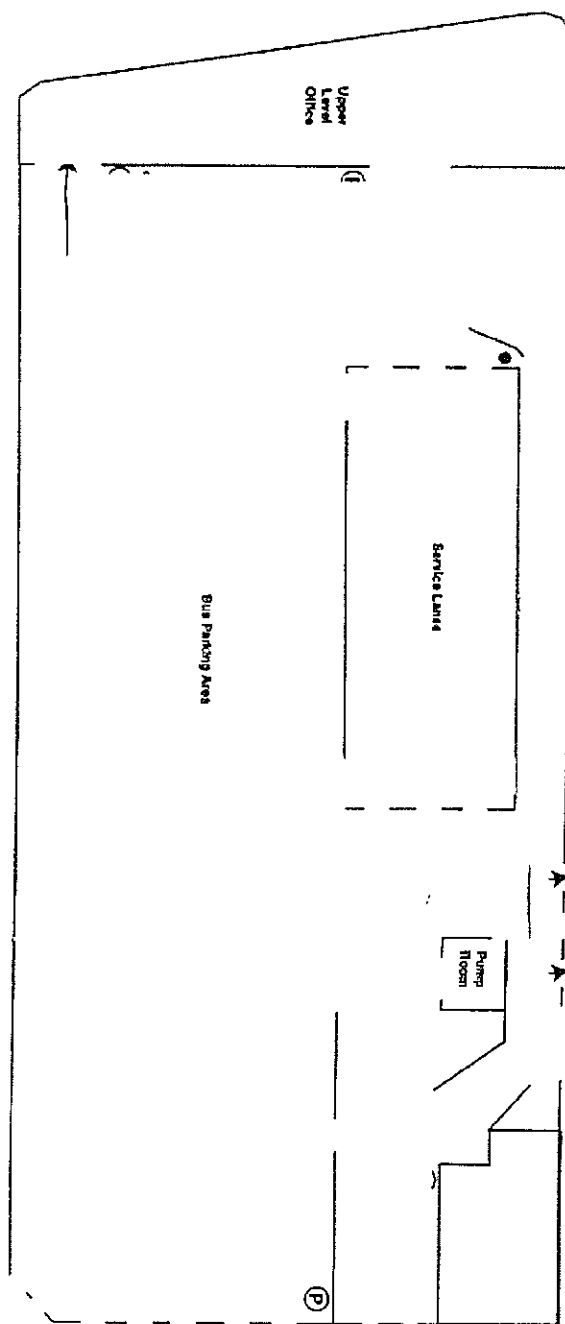
ACM LOCATION MAP

CONNOR Environmental Services and Engineering Assessments
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Bare Hills Business Center
1421 Clarkview Road
Baltimore, MD 21209-2188

ACM LOCATION MAP

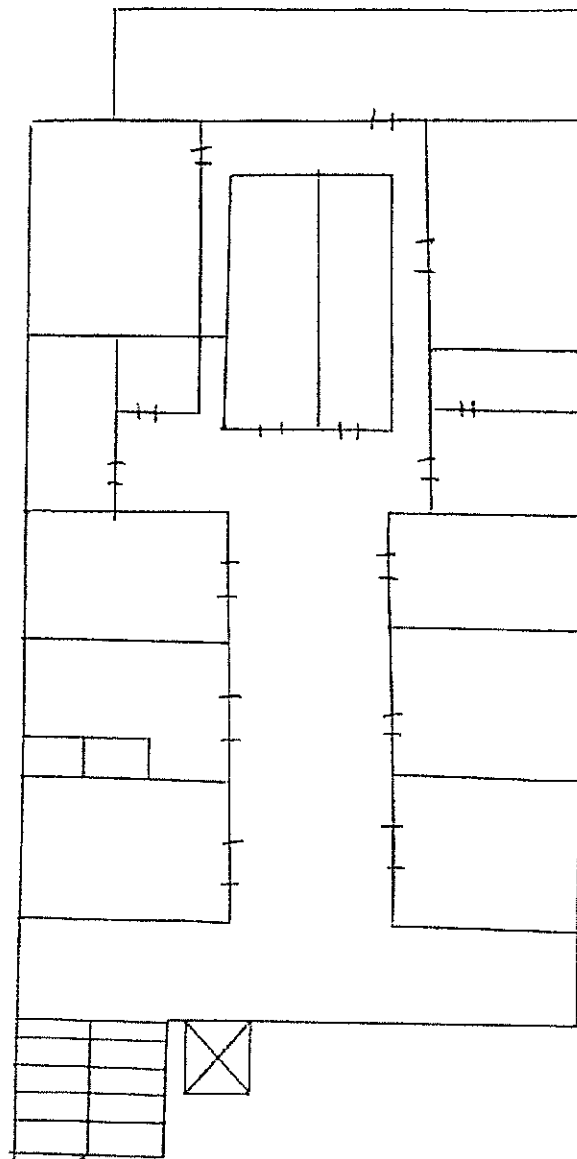
CONNOR Environmental Services and Engineering Assessments
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Bare Hills Business Center
1421 Clarkview Road
Baltimore, MD 21209-2188

Upper Level Bus Parking Garage and Service Lanes, Northern Bus Division



ACM LOCATION MAP

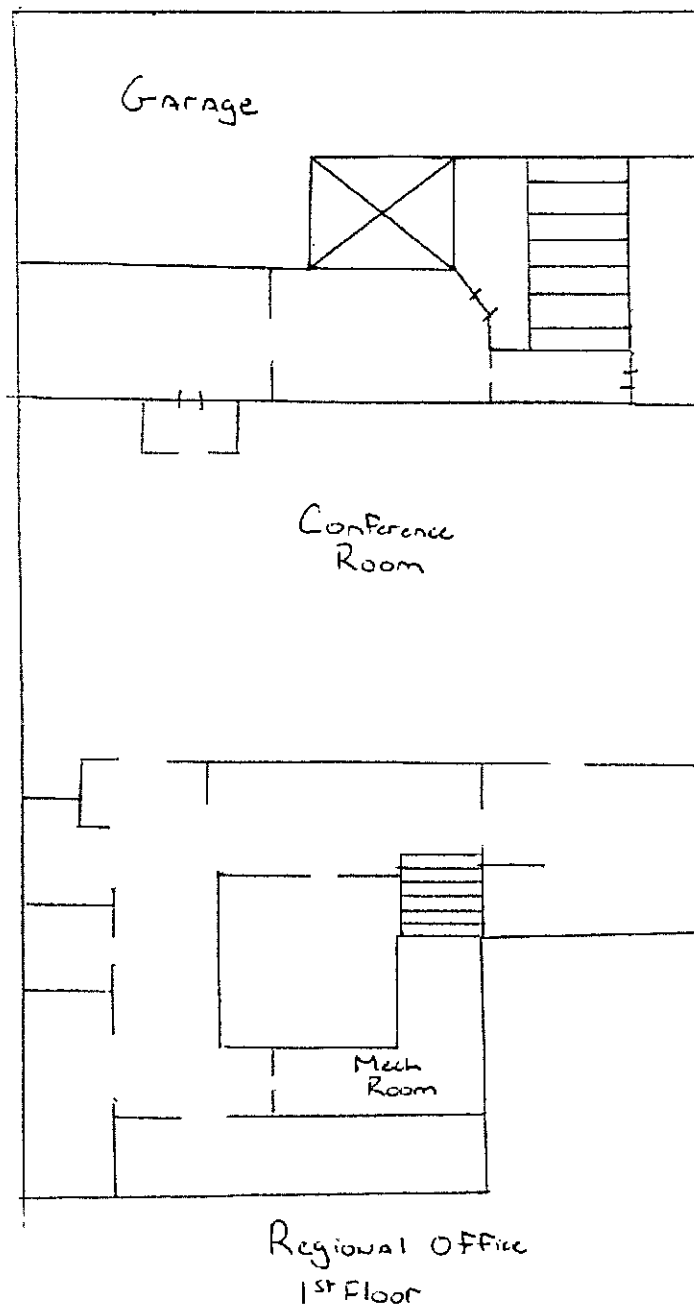
CONNOR Environmental Services and Engineering Assessments
A Division of MIRCON, Inc.
Bare Hills Business Center
1421 Clarkview Road
Baltimore, MD 21209-2188



Regional Office
2nd Floor

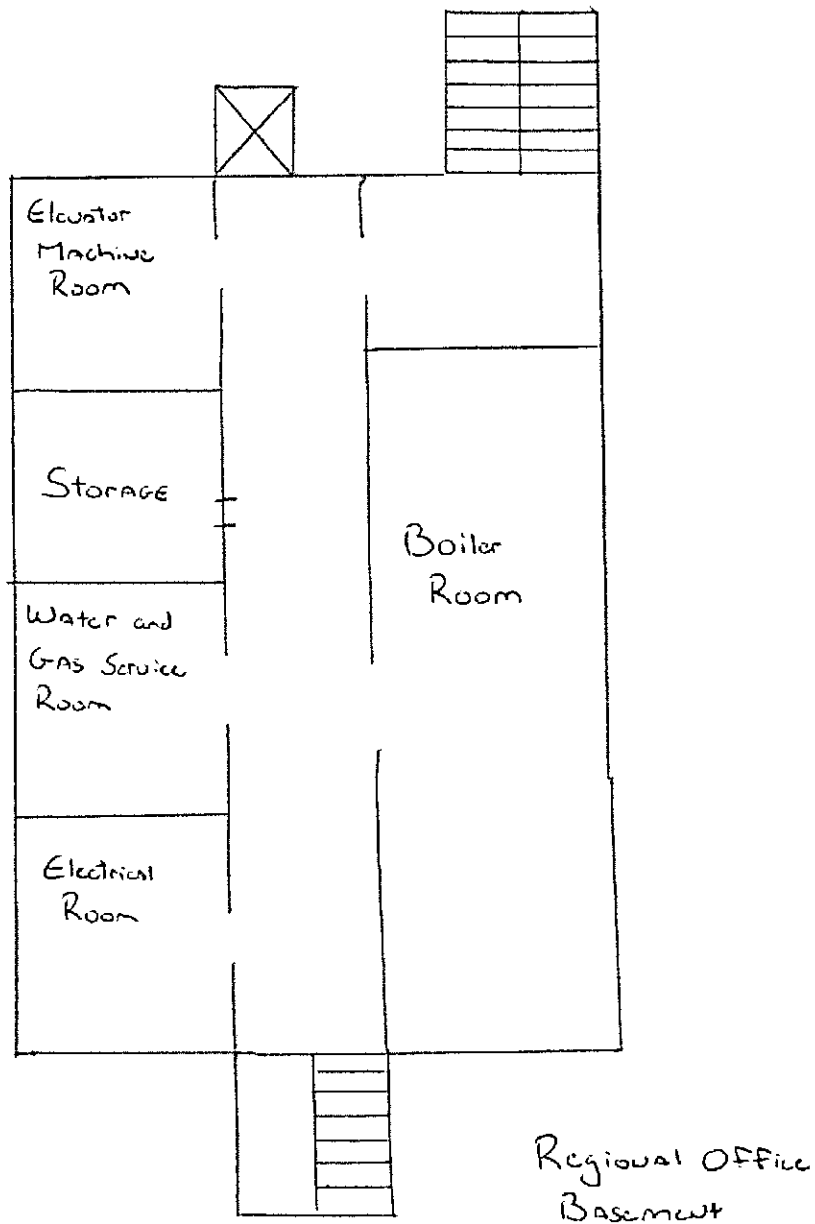
ACM LOCATION MAP

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1421 Clarkview Road
Baltimore, MD 21209-2188



ACM LOCATION MAP

CONNOR Environmental Services and Engineering Assessments
A Division of MIRCON, Inc.
Bare Hills Business Center
1421 Clarkview Road
Baltimore, MD 21209-2188

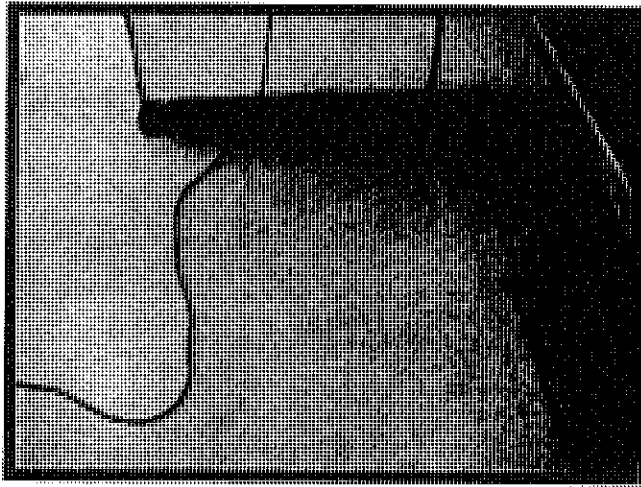


ACM LOCATION MAP

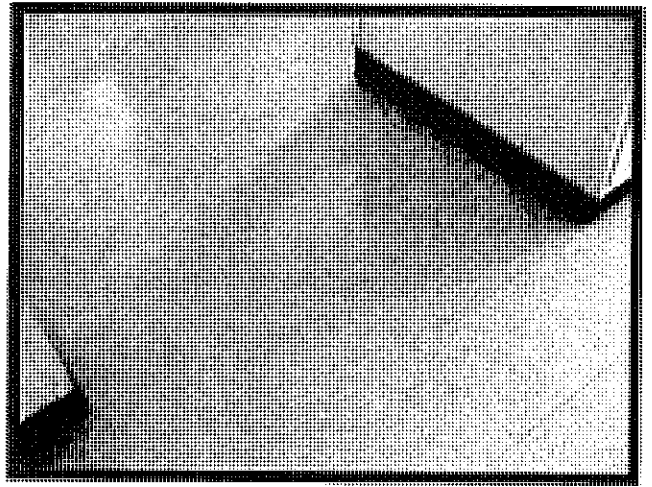
CONNOR Environmental Services and Engineering Assessments
A Division of MIRCON, Inc.
Bare Hills Business Center
1421 Clarkview Road
Baltimore, MD 21209-2188

APPENDIX E

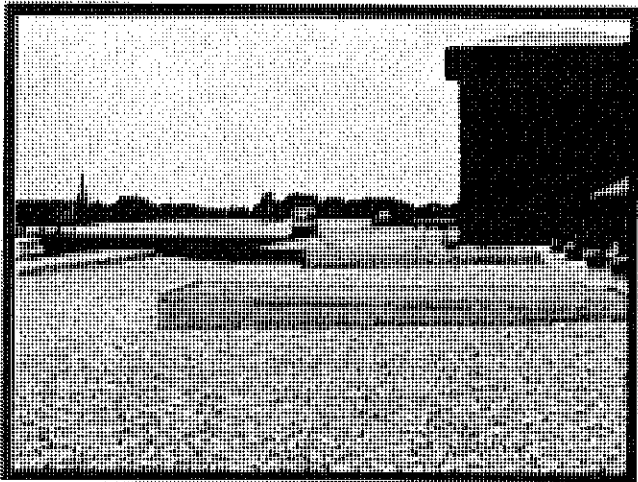
PHOTOGRAPHIC DOCUMENTATION



01 - ORANGE 12"X12" VFT



02 - GREEN W/ WHITE SPECKS 12"X12" VFT & MASTIC



03 - ROOF

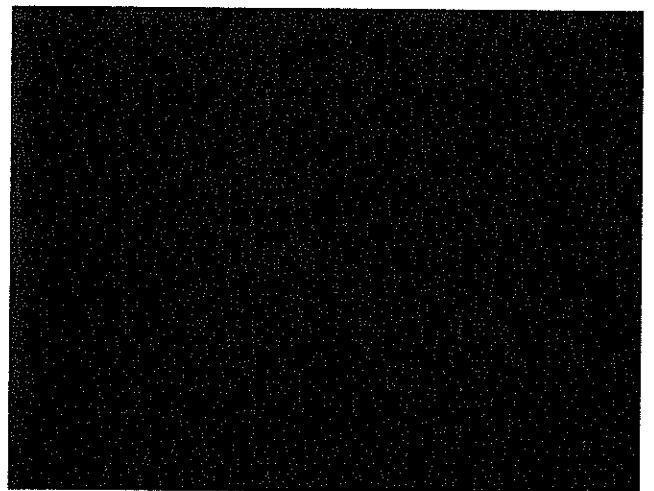
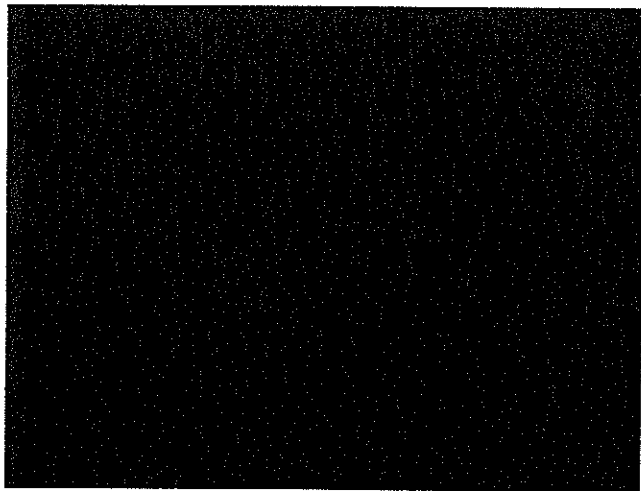
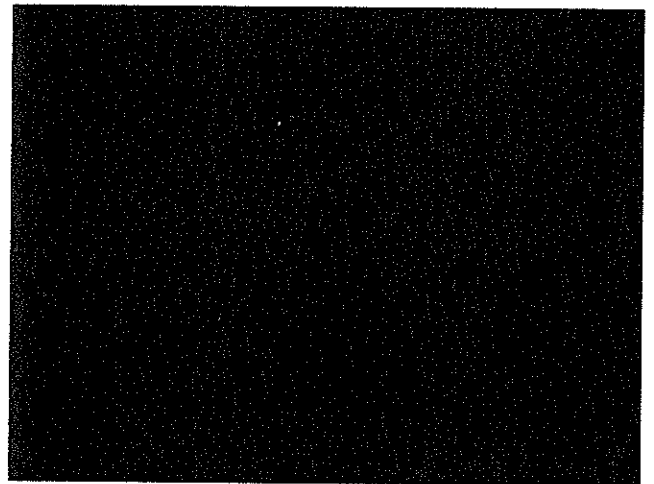
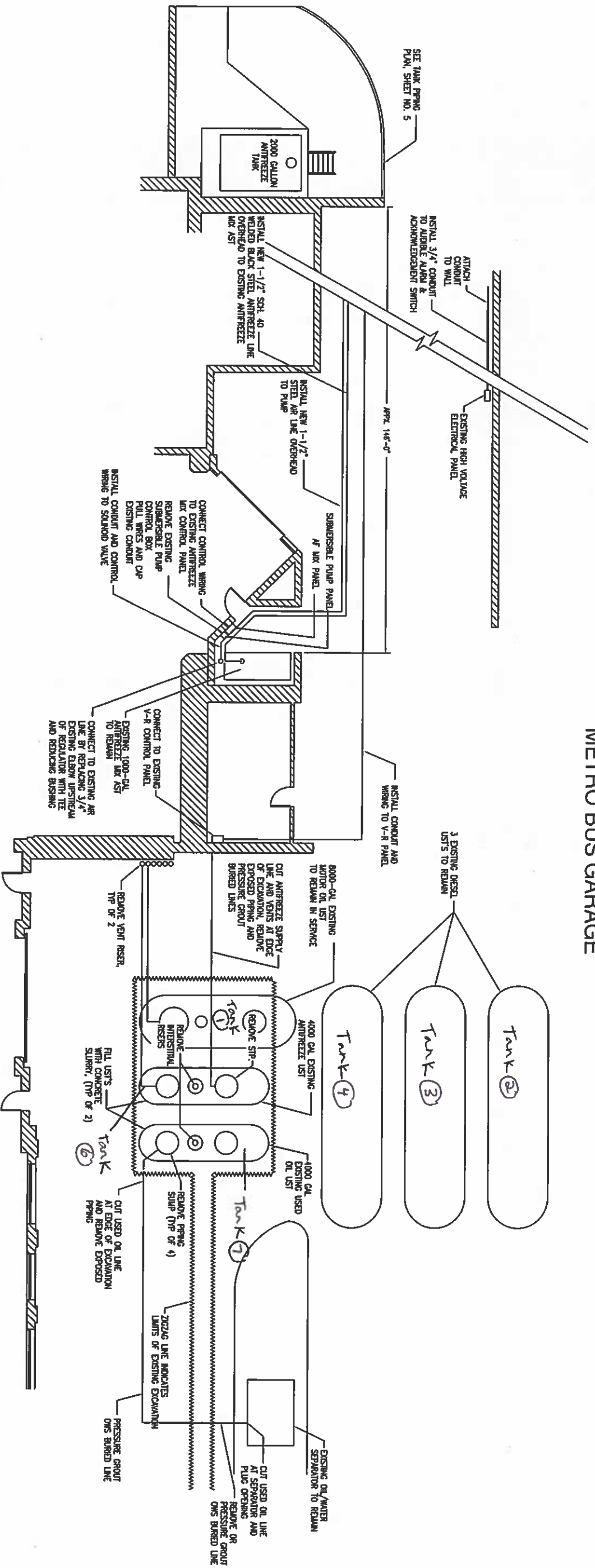


Table 4-2. Underground Storage Tank Inventory

Tank No.	Location	Installation Date	Tank Capacity (gal)	Tank Material	Piping Material	Tank Contents	Leak Detection	Corrosion Protection	Spill/Overfill Prevention
1	Upper Level Service Lane	1986	8,000	Fiberglass; double-walled	Fiberglass	Engine Oil	Yes	N/A	Yes
2	Upper Level Service Lane	1986	20,000	Fiberglass; double-walled	Fiberglass	Diesel	Yes	N/A	Yes
3	Upper Level Service Lane	1986	20,000	Fiberglass; double-walled	Fiberglass	Diesel	Yes	N/A	Yes
4	Upper Level Service Lane	1986	20,000	Fiberglass; double-walled	Fiberglass	Diesel	Yes	N/A	Yes
5	Exit Ramp from Lower Level	1986	6,000	Fiberglass; double-walled	Fiberglass	Automatic Transmission Fluid	Yes	N/A	Yes
6*	Upper Level Service Lane	1986	4,000	Fiberglass	Steel	-	-	-	-
7*	Upper Level Service Lane	1986	4,000	Fiberglass	Steel	-	-	-	-

* Abandoned in Place

METRO BUS GARAGE



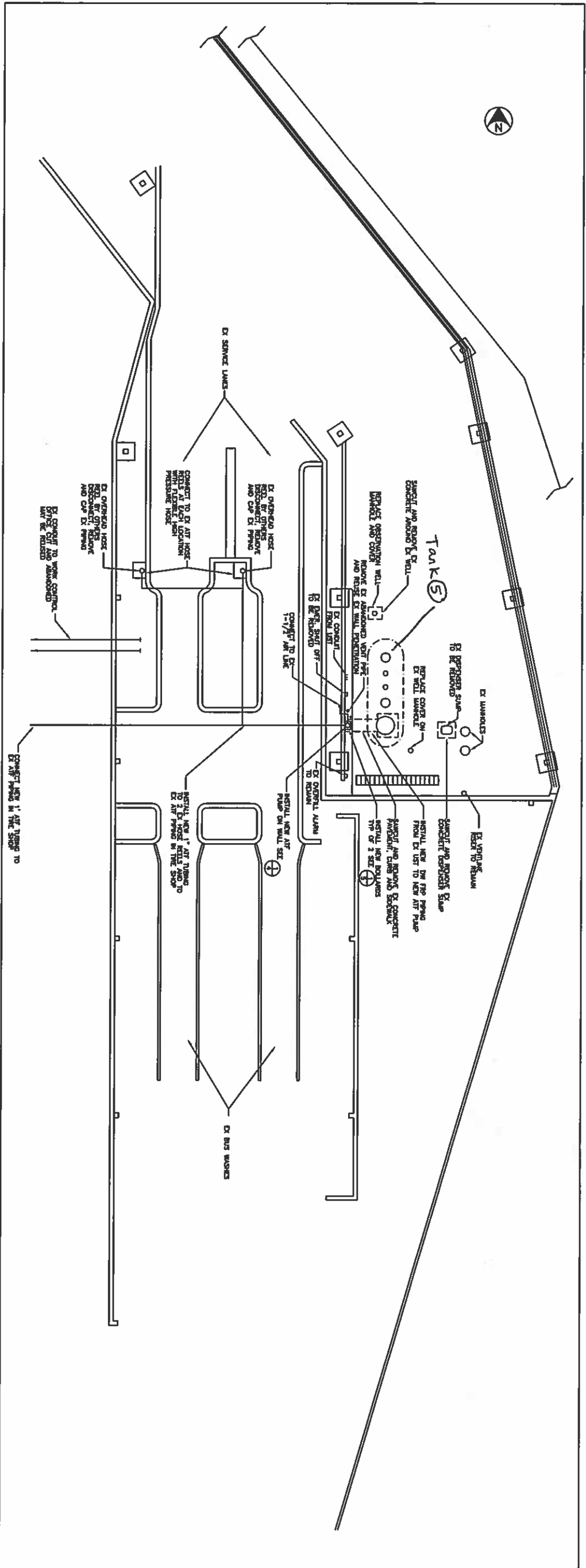
AST INSTALLATION AND UST ABANDONMENT PLAN

SCALE 1/8" = 1'-0"

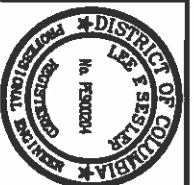


- LEGEND
- | | |
|------|--------------------------|
| AST | ABOVEGROUND STORAGE TANK |
| H | HORIZONTAL |
| LF | LINEAR FEET |
| OCCW | ON CENTER EACH WAY |
| OWS | OIL/WATER SEPARATOR |
| SIP | SUBMERSIBLE TURBINE PUMP |
| UST | UNDERGROUND STORAGE TANK |
| V-R | VEEDER ROOT |
| V | VERTICAL |

DESIGNED	STONE	DATE	7/98	NUMBER		REFERENCE DRAWINGS		DATE	BY	REVISIONS		WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY		CONTRACT NO.	4367-104
DRAWN	KIMBLE	DATE	7/98									NORTHERN BUS DIVISION			
CHECKED	STONE	DATE	7/98									UST ABANDONMENT AND AST INSTALLATION			
APPROVED	J.S.	DATE	7/98									UST ABANDONMENT AND AST INSTALLATION PLAN		DRAWING NO.	9807-011
														SHEET NO.	2 OF 5



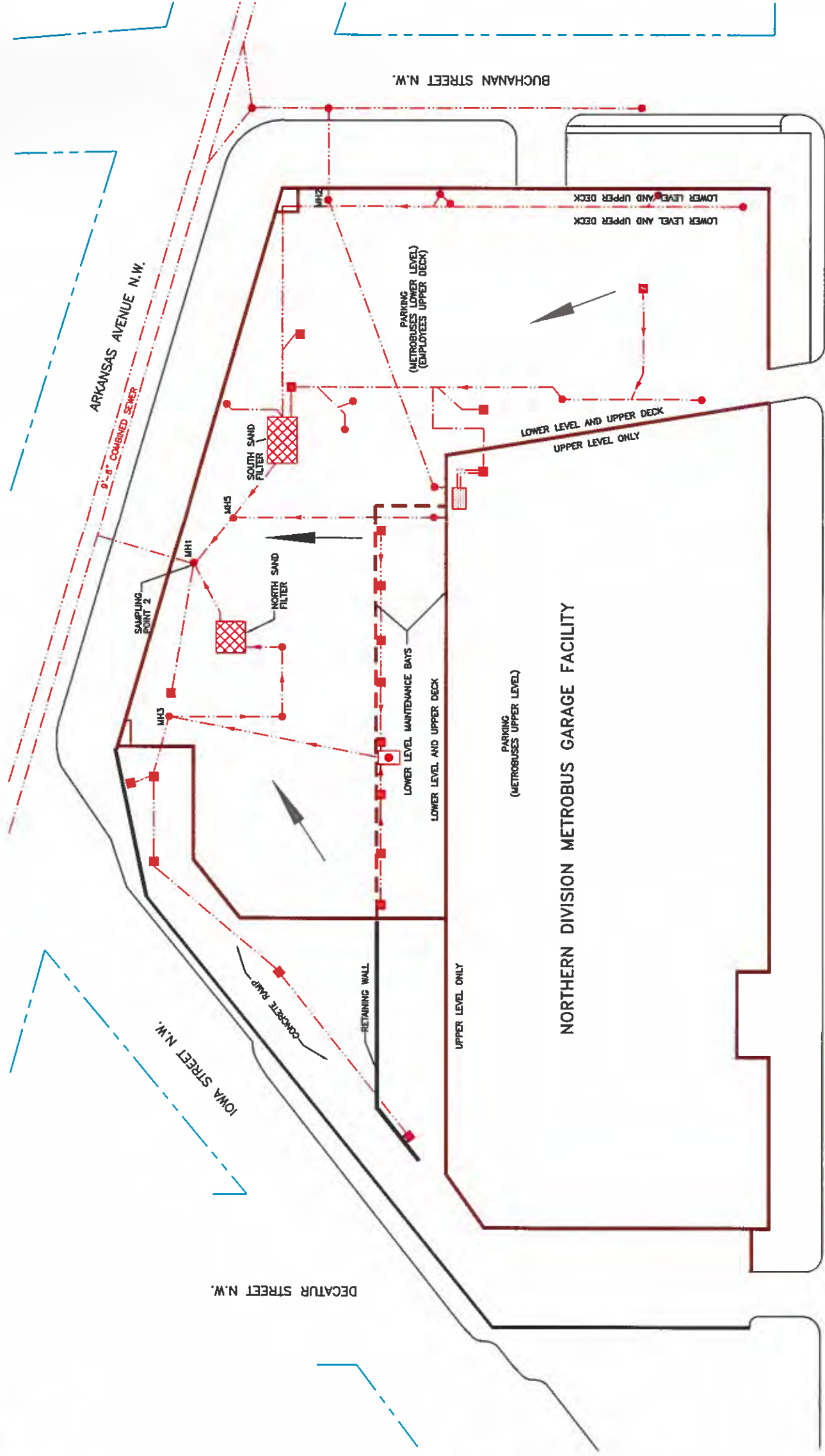
		REFERENCE DRAWINGS		REVISIONS	
	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
DESIGNED BY	STONE				
DRAWN BY	BTL				
CHECKED BY					
APPROVED BY					



WASHINGTON METROPOLITAN
VERSAR DESIGN ENGINEERING DEPARTMENT
APPROVED _____
TITLE _____

Vermeer
CONCRETE CENTRALS, INC.
10000 W. 10th Avenue
Suite 100
Denver, CO 80231
(781) 750-5000

NORTHERN BUS DIVISION	
UST CONVERSION AND ATF PUMP INSTALLATION	
PLAN	
SCALE	DRAWING NO.
1/8" = 1'-0"	1103-00102
SHEET	3



LEGEND:

- OIL INTERCEPTOR
- SAND FILTER
- STORM SEWER INLET
- MANHOLE
- COMBINED SEWER SYSTEMS
- FLOW ARROW
- OIL/GRIT SEPARATOR

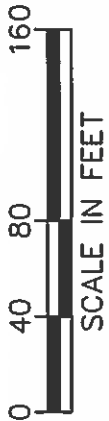
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY



Suite 150
12420 Milestone Center Drive
Germantown, MD, 20876

NORTHERN BUS DIVISION
COMBINED SEWER DRAINAGE AND
POTENTIAL SPILL ROUTES

REVISED:	MS 03/28/12	SCALE:	AS SHOWN
CHECKED:	JF 03/28/12	FIGURE	B-2



14th STREET N.W.



December 12, 2018

Attn: PCS, Inc.

Re: WMATA Northern Bus Division- 4613 14th Street, NW, Washington, DC 20011
• **Lead Paint Chip Bulk Sampling**

On November 29, 2018 H E Consulting, Inc., (HEC) was requested to collect Lead Paint Chip Bulk samples. HEC collected a total of 2 Lead Paint Chip Bulk samples. The samples collected, location, and results are listed below:

Samples Collected and Results:

- 112918-JN04: Area 1, Room 52, Paint Chip (White), **0.017%Pb**
- 112918-JN11: Area 1, Room 52, Paint Chip (White), **0.011%Pb**

Conclusion: The analytical results show that Lead Paint Chip Sample 112918-JN04 and 112918-JN11 yielded results lower than 0.5%Pb content and should not be considered a LBP (Lead Based paint). Analysis of all samples were conducted by AMA Analytical Services, Inc. (See Appendix A for Lab Results)

If there are any questions concerning our findings, please do not hesitate to call. Thank you for selecting H E Consulting, Inc. for your environmental needs.

Sincerely,

H E CONSULTING, INC.

Tyler J. Ruark
Staff Scientist / Project Manager

Attachments: Appendix A- Lab Results

Haun Environmental Consulting Inc. 3930 Cove Rd Edgewater, MD 21037

APPENDIX A: Laboratory Results



CERTIFICATE OF ANALYSIS



Chain of Custody: 611640
Client: HE Consulting
Address: 3930 Cove Road
Edgewater, MD 21037
Attention: Phil Haun

Job Name: WMATA Northern Business Division -
4613 14th Street, NW, Washington,
DC 20011
Job Location: Areas #1 & #2
Job Number: PCS
P.O. Number: Not Provided

Date Submitted: 11/29/2018
Date Analyzed: 12/03/2018
Report Date: 12/03/2018
Date Sampled: 11/29/2018
Person Submitting: J. Northern

Summary of Atomic Absorption Analysis for Lead

AMA Sample Number	Client Sample Number	Analysis Type	Sample Type	Reporting Limit	Final Result	Comments
611640-1	112918-JN04	Flame AA	Paint Chip	0.0073 %Pb	0.017 %Pb	
611640-2	112918-JN11	Flame AA	Paint Chip	0.009 %Pb	0.011 %Pb	

Analysis Method for Flame: Air, Wipes, Paints, and Soil/Solids: EPA 600/R-93/200(M)-7000B; Water: SM-3111B Analysis Method For Furnace: Air, Wipes, Paints, and Soil/Solids : EPA 600/R-93/200(M)-7010; Water: SM-3113B N/A = Not Applicable mg/Kg = parts per million (ppm) on a dry weight basis mg/L = parts per million (ppm) %Pb = percent lead on a dry weight basis ug = micrograms ug/L = parts per billion (ppb)
Note: All samples were received in good condition unless otherwise noted.
Note: All results have two significant digits. Any additional digits shown should not be considered when interpreting the result.

Analyst(s): George Land

See QC Summary for analytical results of quality control samples associated with these samples.

Air and Wipe results are not corrected for any blank results. Final results for air and wipe samples are based on client supplied information not verified by this laboratory.

All results are to be considered preliminary and subject to change unless signed by the Technical Director or Deputy.

Technical Director G. Edward Carney

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these Laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from us. Sample types, locations, and collection protocols are based upon the information provided by the persons submitting them and, unless collected by personnel of these Laboratories, we expressly disclaim any knowledge and liability for the accuracy and completeness of this information. Residual sample material will be discarded in accordance with the appropriate regulatory guidelines, unless otherwise requested by the client. This report must not be used to claim, and does not imply product certification, approval, or endorsement by NY ELAP, AIHA-LAP, or any agency of the Federal Government. All rights reserved. AMA Analytical Services, Inc.



QC Summary for SDG #58419

Overview

Analysis Type: Flame AA
Sample Type: Paint Chip
Analysis Date: 12/03/2018

Samples Included

611640-1 611640-2

Preparation Blank ✓

Result: -0.027 ppm

Report Limit Verification Sample ✓

Percent Recovery: 97.1%

Duplicates ✓

RPD: 21.9%

Matrix Spike Analysis ✓

Spiked Sample Percent Recovery: 103.1%
Spike Duplicate Percent Recovery: 102.4%
RPD: 0.6%

Matrix Blank ✓

Result: 0.049 ppm

Laboratory Control Sample #1 ✓

Percent Recovery: 116.6%

Laboratory Control Sample #2 ✓

Percent Recovery: 104.23%

Reference Sample

Percent Recovery: N/A

Calibration Curve ✓

Correlation: 0.998794

Serial Dilution / Bench Spike

Serial Dilution RPD: N/A
Bench Spike Percent Recovery: N/A

Notes



AMA Analytical Services, Inc.

Focused on Results www.amalab.com
 AIHA-LAP (#100470) NVLAP (#101143-0) NY ELAP (10920)
 4475 Forbes Blvd. • Lanham, MD 20706
 (301) 459-2640 • (800) 346-0961 • Fax (301) 459-2643

CHAIN OF CUSTODY

(Please Refer To This
Number For Inquiries)

304401-PLM

Handwritten: 2012, 611010-PO

Mailing/Billing Information:

1. Client Name: HEC
 2. Address 1: _____
 3. Address 2: _____
 4. Address 3: _____
 5. Phone #: 602-207-5737 Fax #: _____

Submittal Information:

1. Job Name: Wmara Northern Bug Disposal 4615 14th Street NW 20011
 2. Job Location: Areas 1+2
 3. Job #: 065 P.O. #: _____
 4. Contact Person: J. Northern Cell: 443-542-2264
 5. Collected by: J. Northern Cell: _____

Reporting Info (Results provided as soon as technically feasible). If no TAT/Reporting Info is provided, AMA will assign defaults of 5-Day and email/fax to contacts on file.

AFTER HOURS (must be pre-scheduled) ☐ 4 Hours ☐ Late Night ☐ Immediate Date Due: _____ ☐ 24 Hours Time Due: _____ Comments: _____		NORMAL BUSINESS HOURS ☐ 4 Hours ☒ 5 Day + ☐ Same Day ☐ Next Day ☐ 2 Day Date Due: <u>11/24/18</u> ☐ Results Required By Noon		REPORT TO: ☒ Email: <u>Johnathon Northern</u> ☒ Email 2: <u>Phillip Hawn</u> ☐ Verbal: _____
--	--	--	--	---

Asbestos Analysis

*PCM Air - Please Indicate Filter Type: _____
☐ NIOSH 7400 (QTY)
☐ Fiberglass (QTY)
 TEM Air* - Please Indicate Filter Type: _____
☐ AHERA (QTY)
☐ NIOSH 7402 (QTY)
☐ Other (specify) _____ (QTY)

TEM Bulk

☐ ELAP 198.4/Chatfield (QTY)
☐ NY State PLM/TEM (QTY)
☐ Residual Ash (QTY)
☐ Vermiculite

TEM Dust*

☐ Qual. (pres/abs) Vacuum/Dust (QTY)
☐ Quan. (s/area) Vacuum D5755-95 (QTY)
☐ Quan. (s/area) Dust D6480-99 (QTY)

TEM Water

☐ Qual. (pres/abs) (QTY)
☐ ELAP 198.2/EPA 100.2 (QTY)
☐ EPA 100.1 (QTY)

☒ All samples received in good condition unless otherwise noted.
☐ TEM Water samples _____ °C

Metals Analysis

☒ Pb Paint Chip 2 (QTY)
☐ *Pb Dust Wipe (wipe type _____) (QTY)
☐ *Pb Air (QTY)
☐ Pb Soil/Solid (QTY)
☐ Pb TCLP (QTY)
☐ Drinking Water ☐ Pb (QTY) ☐ Cu (QTY) ☐ As (QTY)
☐ Waste Water ☐ Pb (QTY) ☐ Cu (QTY) ☐ As (QTY)
☐ Pb Furnace (Media _____) (QTY)

Fungal Analysis

Collection Apparatus for Spore Traps/Air Samples: _____
 Collection Media _____
☐ *Spore-Trap (QTY) ☐ Surface Vacuum Dust (QTY)
☐ *Surface Swab (QTY)
☐ *Surface Tape (QTY)
☐ Other (Specify) _____ (QTY)

PLM Bulk
☒ EPA 600 - Visual Estimate 12 (QTY) ☒ Pos Stop
☐ EPA Point Count (QTY)
☐ NY State Friable 198.1 (QTY)
☐ Grav. Reduction ELAP 198.6 (QTY)
☐ Other (specify) _____ (QTY)

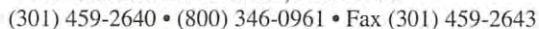
MISC

☐ Asbestos Soil PLM (Qual) PLM (Quan) PLM/TEM (Qual) PLM/TEM (Quan)
 *It is recommended that blank samples be submitted with all air and surface samples

If field data sheets are submitted, there is no need to complete bottom section.

CLIENT ID #	SAMPLE INFORMATION SAMPLE LOCATION/ ID	DATE/ TIME	VOL (L)/ Wipe Area	ANALYSIS						MATRIX							COMMENTS / SPECIAL INSTRUCTIONS
				TEM	PCM	PLM	LEAD	MOLD	AIR	BULK	DUST	WATER	OTHER	SPORE TRAP	TAPE	SWAB	
112915-0001	concrete ceiling Area #1	Room #52															
112915-0002	concrete ceiling Area #1	#52															
112915-0003	concrete ceiling Area #1	#22															
112915-0004	paint chip white Area #1	#52					X			X							
112915-0005	mortar w/ CMU block Area #1	#52															
112915-0006		↓															
112915-0007		↓															
112915-0008	concrete wall Area #1	#52															
112915-0009		↓															
112915-0010		↓															
112915-0011	paint chip white Area #1	#52					X			X							
112915-0012	concrete ceiling Area #2	Open area															
112915-0013	concrete ceiling Area #2	Open area															

Relinquished by:	Signature	Date	Time	Shipping Information
Received by: <u>BW Hahn</u>	<u>[Signature]</u>	<u>11/24/18</u>	<u>1530</u>	☐ UPS ☐ In-Person ☐ Other ☐ FedEx ☐ Drop Box ☐ USPS ☐ Courier



☐ UPS ☐ In-Person ☐ Other _____
☐ FedEx ☐ Drop Box
☐ USPS ☐ Courier

APPENDIX 12: ENVIRONMENTAL JUSTICE ANALYSIS

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WMATA Northern Bus Garage

Environmental Justice Technical Memorandum

March 2022



Washington Metropolitan Area Transit Authority

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Contract FQ15190
Task Order No: CIP-19-FQ15190-ENGA-001

WMATA Northern Bus Garage

Environmental Justice Technical Memorandum

March 2022



Washington Metropolitan Area Transit Authority

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Table of Contents

1	Introduction	1
2	Regulatory Context and Methodology	3
2.1	Regulatory Context	3
2.2	Methodology	3
3	Environmental Justice POPulations	5
3.1	Minority Populations	5
3.2	Low-Income Populations	8
3.3	Facilities of Cultural or Economic Importance to Minority or Low-Income Populations	11
4	Potential Impacts	13
4.1	Cultural Resources	16
4.2	Construction Impacts	17
5	Outreach to Environmental Justice Communities	18

LIST OF TABLES

Table 1 – Minority Populations	8
Table 2 – Household Annual Income	9
Table 3 – Facilities of Cultural or Economic Importance to Minority or Low-Income Populations	11
Table 4 – Remaining Adverse Effects Following Mitigation	13
Table 5 – Community Meetings, January 2019 – May 2020	18

LIST OF FIGURES

Figure 1 – WMATA Service Area and Locations of Bus Operations and Maintenance Facilities	6
Figure 2 – Minority Populations within the Project Study Area	7
Figure 3 – Low-Income Populations in the Project Study Area	10
Figure 4 – Facilities of Economic or Cultural Importance to Minority or Low-Income Populations	12

1 INTRODUCTION

The Washington Metropolitan Transit Authority (WMATA) plans to replace the existing Northern Bus Garage at 4615 14th Street, NW Washington, DC. Replacement of the existing bus garage is necessary as the existing facility has met its useful life and structural improvements are needed in order to maintain efficient storage/maintenance, replace deteriorating concrete conditions, better accommodate articulated buses, and to reduce deadheading (non-revenue service). The project is expected to begin in 2022 and be completed by 2026.

WMATA's Board has adopted a goal of transitioning to a fully zero-emission bus fleet by 2045. The project is being designed to be WMATA's first all-electric bus garage, with infrastructure and equipment needed to run 100 percent electric vehicles at the Northern Bus Garage. However, this document does not assume the implementation of EV buses within the timeframes associated with the demolition, reconstruction, and opening of the bus garage which is anticipated to begin in 2022 and be completed by 2026.

The current facility is located on an approximately 5.25-acre site in northwest Washington, DC, and WMATA will rebuild the new facility on the existing, WMATA-owned site. The garage is bounded by 14th Street NW, Buchanan Street NW, Arkansas Avenue NW, and Iowa Avenue NW.

WMATA plans to demolish the existing garage but maintain the original building façade (constructed in 1906) along 14th Street NW. The replacement garage would be located entirely within the existing footprint of the current garage. The storage and maintenance capacity of the replacement garage would be 150 buses which is 25 buses less than the current capacity of 175 buses.

The improvements at Northern Bus Garage include the following:

- Reorganize the design and number of maintenance bays and bus storage parking to meet current and future needs;
- Design bus service bays to better accommodate articulated buses serving downtown Washington, DC;
- Construct column spacing to support 14-foot minimum stall width, to allow for more efficient use of garage space;
- Construct service lanes on level surfaces to minimize the risk of rolling buses during refueling and cleaning operations;
- Minimize the number of access points along the perimeter to allow for proper access control, for safety and security concerns;
- Re-design the facility to include counter-clockwise circulation to improve operators' visibility while turning; and
- Minimize the number of level changes within bus circulation and parking areas, to support safe and efficient operations; and
- Accommodate the additional equipment that will be needed to support the zero-emission bus fleet including charging stations and overhead layouts for the charging pantographs and the rooms needed for the additional electric switchgear.

The proposed design would also result in:

- Adequate height clearance for newer diesel buses and future overhead charging for electric buses;
- Modernization of existing garage with natural light and updated equipment;

- Reduction of operating costs through sustainable strategies including a green roof, electric vehicle charging equipment at 10 parking spaces, and a solar array;
- Incorporation of a retail element for community integration along 14th Street NW; and
- Addition of 100 percent filtered exhaust air, which requires an extensive area of indoor mechanical space.

The upgraded facility would relocate a portion of current employee parking from on-street parking in the surrounding neighborhood to on-site parking. Currently, there are 212 on-site parking spaces for employees and non-revenue vehicles. The proposed project includes 306 onsite parking spaces for employees and non-revenue vehicles—more than is required by DC code—as well as 20 parking spaces for retail employees.

The new facility would continue to provide services such as cleaning (interior and exterior), inspections, fueling and washing, running repairs, parts storage, crew reporting and dispatching, and employee service and welfare areas. However, previous heavy repairs and paint booth services would no longer be conducted at the facility as a mitigation stemming from community feedback. The new facility would accommodate bus technology of clean diesel, hybrid electric diesel, and zero emission buses.

The purpose of this technical memorandum is to assess the potential for the proposed project to cause disproportionately high and adverse impacts on environmental justice (EJ) populations in accordance with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. EO 12898 requires that Federal agencies identify and address disproportionately high and adverse impacts resulting from Federal projects on minority and low-income communities.

As stated in Federal Transit Administration (FTA) Circular 4703.1, *Environmental Justice Policy Guidance for Federal Transit Administration Recipients*, the United States Department of Transportation (USDOT) must make EJ part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority populations or low-income populations. FTA Circular 4703.1 provides the following definitions for minority and low-income populations:

- A **minority population** is defined as any readily identifiable group or groups of minority persons who live in geographic proximity and, if circumstances warrant, geographically dispersed or transient persons such as migrant workers or Native Americans who will be similarly affected by a proposed project. This includes persons who are American Indian or Alaska Native, Asian, Black or African American, Hawaii or other Pacific Island Native, and Hispanic or Latino. This analysis also considers persons who identified as being either “some other race” or “two or more races” as minorities.
- A **low-income person** is one whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines. The circular notes that an EJ analysis may also use a locally developed threshold, such as a percentage of median income for the area, provided the threshold is at least as inclusive as the HHS poverty guidelines. A **low-income population** is any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed or transient persons who will be similarly affected by a proposed project.

2 REGULATORY CONTEXT AND METHODOLOGY

This section summarizes the relevant regulatory context for evaluating impacts to minority and low-income populations and describes the methodology for evaluating the Project's potential adverse effects on EJ populations.

2.1 REGULATORY CONTEXT

The analysis presented in this technical memorandum is consistent with the following:

- Executive Order (EO) 12898 of February 11, 1994: *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* requires the US Department of Transportation (DOT) and FTA to make environmental justice part of their mission by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations.¹
- FTA Circular 4703.1 *Environmental Justice Policy Guidance for Federal Transit Administration Recipients* (2012) provides recipients of FTA financial assistance with guidance in order to incorporate environmental justice principles into plans, projects, and activities that receive funding from FTA.²
- USDOT Order 5610.2a *Order to Address Environmental Justice in Minority Populations and Low-Income Populations* (2012) sets for the USDOT policy to consider EJ principles in all DOT programs, policies, and activities. It describes how the objectives of EJ will be integrated into planning and programming, rulemaking, and policy formulation. The Order sets forth steps to prevent disproportionately high and adverse effects to EJ populations through Title VI and EJ analyses and sets guidelines for avoidance, prevention, minimization, and mitigation.³

2.2 METHODOLOGY

2.2.1 IDENTIFICATION OF ENVIRONMENTAL JUSTICE POPULATIONS

U.S. census block group data were used to identify minority and low-income populations within the study area as well as a larger geographic area used for comparison. The study area for demographics was assessed at a ¼ mile distance from the site boundary. The ¼ mile distance was used because it accounts for impacts, such as changes in air quality, noise, or traffic, that may adversely or disproportionately affect low-income or minority communities.

For the purposes of this analysis, the study area was compared to the WMATA service area (comprising Arlington County, the City of Alexandria, the City of Falls Church, Fairfax County, and the City of Fairfax in Virginia; Prince George's County and Montgomery County in Maryland; and the District of Columbia as shown in **Figure 1**). In addition, the study area was compared to the District of Columbia as a whole.

According to the 2018 American Community Survey (ACS), 63.8 percent of the population of the District of Columbia were minority individuals, and 58 percent of the WMATA service area were minority. In accordance with FTA guidance, the analysis used 150 percent of the HHS poverty threshold (\$36,900 for a family of four in 2018) to determine the presence of low-income populations.

¹ EO 12898

² FTA Circular 4703.1

³ USDOT Order 5601.2

The analysis used this higher threshold (rather than the nationwide threshold of \$24,600) because median incomes in the District of Columbia and the WMATA service area are higher than nationally. The 2018 ACS reports incomes using brackets; therefore this analysis used \$40,000 as the threshold. According to the 2018 ACS, 28.8 percent of households in the District of Columbia have incomes below \$40,000 and 18.6 percent of households in the WMATA service area have incomes below this threshold.

In addition to the demographic measures described above, this analysis used the presence of dedicated affordable housing units to identify low-income populations and the locations of churches, schools, social service organizations, and health centers that may be of economic or cultural importance to minority or low-income populations to determine the presence of EJ populations

2.2.2 IDENTIFICATION OF DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS

The analysis was prepared in accordance with FTA Circular 4703.1 *Environmental Justice Policy Guidance for Federal Transit Administration Recipients* (August 15, 2012). As residents of the study area are largely minority and low-income, it was assumed that any adverse effects remaining after mitigation would be preponderantly borne by these populations. Based on FTA guidance, this evaluation involved the following steps:

-
- Determining if any adverse impacts to minority or low-income populations would be more severe or greater in magnitude than those on non-minority or low-income populations.
- Identifying if the alternatives would affect resources especially important to an environmental justice population (such as social, religious, or cultural functions).
- Analyzing whether any benefits would be accompanied by impacts to environmental justice populations.
- Determining mitigation measures, enhancements, and betterments, if needed, and their effects.

All resource categories considered in the NEPA process for the project were reviewed to identify those with the potential to result in disproportionately high and adverse effects on EJ populations. Resource categories with no adverse impacts were dismissed from the analysis as, by definition, they would not disproportionately adversely affect minority or low-income populations. For impact areas with potential adverse effects, the remaining effects following minimization and mitigation were further examined to determine whether the activity would result in a “disproportionately high and adverse effect on human health or the environment.”⁴

The EJ analysis was conducted by considering the geographical distribution of potentially disproportionate adverse impacts within the study area and whether they would be concentrated in close proximity to residences, particularly known affordable housing units; fall mostly on facilities or activities of cultural or economic importance to such persons; or otherwise affect minority or low-income persons more than the general population.

As shown in **Figure 1**, WMATA’s bus operations and maintenance facilities are evenly dispersed throughout the WMATA service area and the region. WMATA selects locations for its facilities based on service needs and available property that can be developed to meet WMATA program requirements. Typically, bus garages are located within close proximity of the areas that the buses serve to reduce

⁴ FTA Circular 4703.1

deadhead times.⁵ Each bus garage is therefore part of a program of facilities throughout the region developed to support the operation of the WMATA bus network. Therefore, the EJ analysis considers the potential for disproportionate adverse impacts in the context of the regional program of bus operations and maintenance facilities.

3 ENVIRONMENTAL JUSTICE POPULATIONS

This section summarizes the existing conditions for EJ populations and provides an overview of demographic data for the study area. Based on the analysis of existing demographics, described in more detail in the sections below, both minority and low-income populations reside in the study area. Therefore, **Section 4, Potential Impacts**, describes the analysis of the potential for disproportionately high and adverse effects to these populations.

With the exception of Census Tract 26, Block Group 2,⁶ the block groups within ¼ mile of Northern Bus Garage are all in the 16th Street Heights neighborhood of Washington, DC. The neighborhood developed in the 1920s as a streetcar suburb, spurred by the extension of the 14th Street Line.⁷ The neighborhood is primarily residential with small pockets of retail, including the part of 14th Street across the street from Northern Bus Garage. The stretch of 16th Street NW that forms the western edge of the neighborhood is known as “God’s Boulevard” due to the large concentration of houses of worship.⁸ Since the 1960s, the residents of 16th Street Heights have been predominately African American, but over the past 20 years the proportion of African Americans has fallen.⁹

3.1 MINORITY POPULATIONS

As shown in **Table 1**, the population of the study area is majority-minority, with 64.1 to 88 percent of the total population identifying as minority, depending on the Census block group. As a result, impacts within the study area would be predominantly borne by EJ populations. **Figure 2** shows the concentration of minority populations in the study area.

⁵ “Deadhead” is a transit term which means the miles and hours that a vehicle travels when out of revenue service (not serving passengers).

⁶ Census Tract 26, Block Group 2 is located across 16th Street in the Crestwood neighborhood.

⁷ RLAH Real Estate, “16th Street Heights.” Accessed from <https://www.rlahre.com/neighborhood/16th-street-heights/> on February 4, 2022.

⁸ DC Urban Turf, “16th Street Heights: Taking it Slow on God’s Boulevard.” November 9, 2017. Accessed from https://dc.urbanturf.com/articles/blog/16th_street_heights_taking_it_slow_on_gods_boulevard/13235 on February 4, 2022.

⁹ Sara Gebhardt, “Hazy on Borders, Residents are Sure of 16th Street Heights,” *Washington Post*, February 2, 2008. Accessed from <https://www.washingtonpost.com/wp-dyn/content/article/2008/02/01/AR2008020101634.html> on February 4, 2022.

Figure 1 – WMATA Service Area and Locations of Bus Operations and Maintenance Facilities

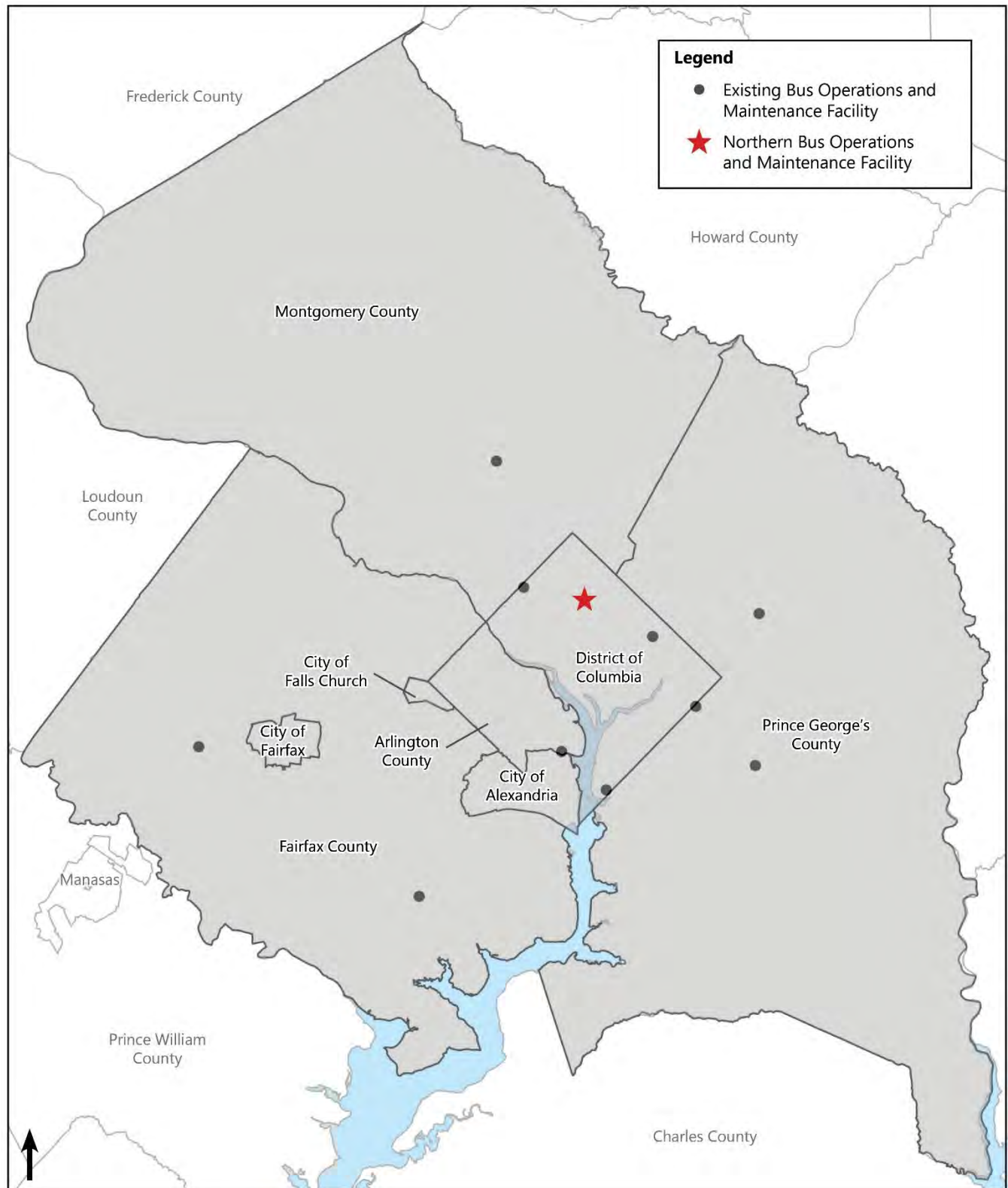


Figure 2 – Minority Populations within the Project Study Area

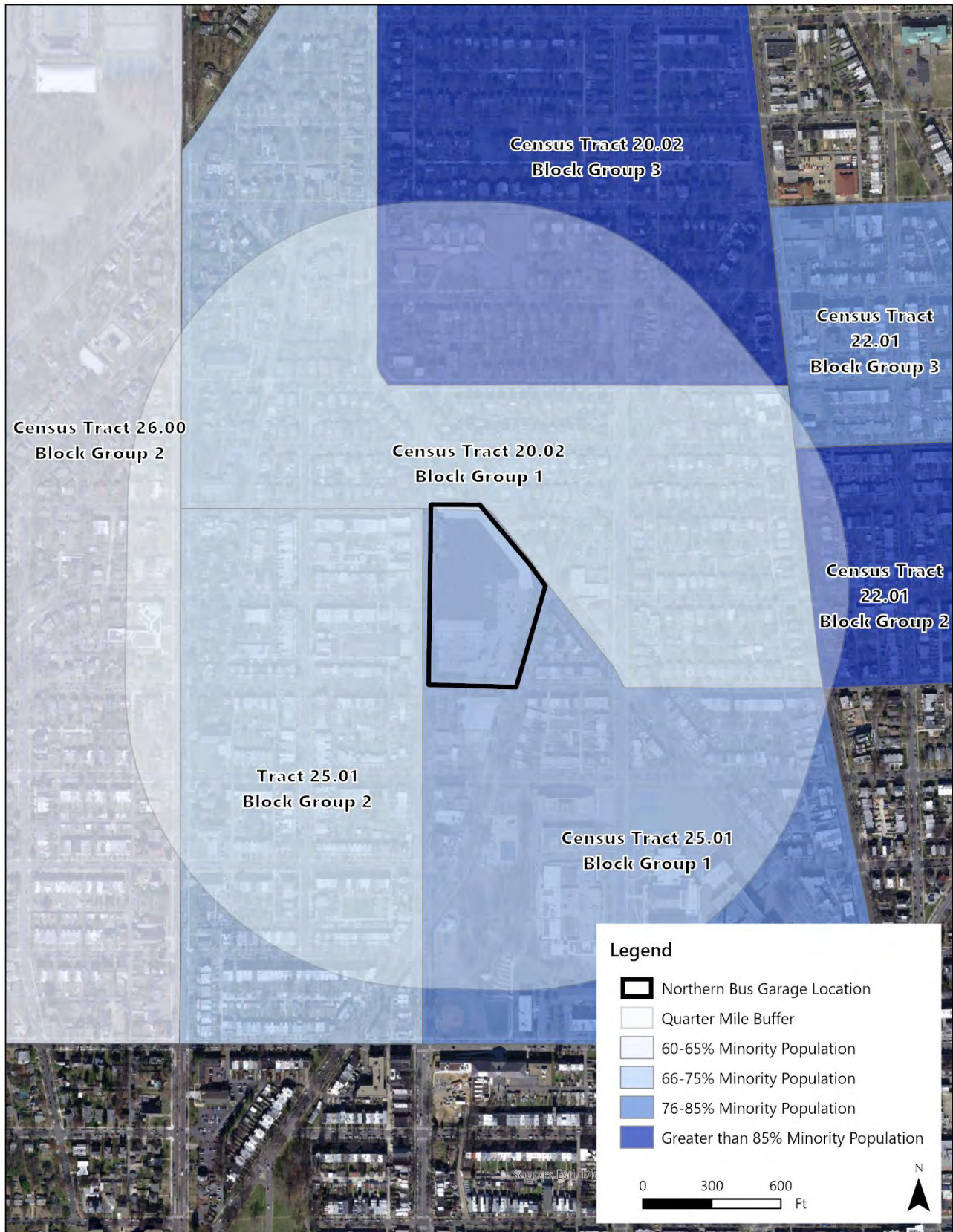


Table 1 – Minority Populations

	Total Population	Minority Population	Percent of Total Population
Census Tract 20.02, Block Group 1	1,101	739	67.1
Census Tract 20.02, Block Group 3	1,557	1,370	88.0
Census Tract 22.01, Block Group 2	1,291	1,121	86.8
Census Tract 22.01, Block Group 3	744	633	85.1
Census Tract 25.01, Block Group 1	1,663	1,427	85.8
Census Tract 25.01, Block Group 2	1,626	1,267	77.9
Census Tract 26, Block Group 2	1,533	983	64.1
District of Columbia	684,498	436,441	63.8
WMATA Service Area	4,200,602	2,198,335	52.3

Source: National Census Data, 2018 American Community Survey (ACS) 1-year and 5-year estimates.

3.2 LOW-INCOME POPULATIONS

As noted in **Section 2.2.1, Identification of Environmental Justice Populations**, this analysis uses \$40,000 in annual household income as the threshold to identify low-income populations. **Table 2** lists the proportion of each block group making less than \$40,000 annually and **Figure 3** shows the concentration of low-income populations in the study area, including the locations of dedicated affordable housing units. Census Tract 20.02, Block Group 1 has one existing affordable housing development (Cornerstone Community Supportive Housing, at 4800 Arkansas Avenue, NW) with 7 affordable units, and another 3 units are under construction at 4803 Georgia Avenue NW.

Table 2 – Household Annual Income

Percent of Households									
	Census Tract 20.02, Block Group 1	Census Tract 20.02, Block Group 3	Census Tract 22.01, Block Group 2	Census Tract 22.01, Block Group 3	Census Tract 25.01, Block Group 1	Census Tract 25.01, Block Group 2	Census Tract 26, Block Group 2	District of Columbia	WMATA Service Area
Less than \$10,000	0.0	0.0	0.0	8.5	16.2	8.8	0.0	9.2	4.4
\$10,000 to \$14,999	0.0	1.6	6.6	15.9	15.9	0.0	0.0	4.5	2.3
\$15,000 to \$19,999	0.0	2.3	4.7	8.5	1.3	0.0	1.4	3.4	2.1
\$20,000 to \$24,999	0.0	5.1	1.4	4.1	10.7	0.0	1.2	3.0	2.2
\$25,000 to \$29,999	0.0	0.0	0.0	0.0	7.6	0.0	1.0	3.4	2.6
\$30,000 to \$34,999	8.3	0.0	10.3	3.7	0.0	5.2	0.0	2.9	2.5
\$35,000 to \$39,999	3.0	0.0	0.0	3.3	0.0	0.0	0.0	2.4	2.5
Below Poverty Threshold	11.2	9.0	23.0	43.9	51.6	14.0	3.7	28.8	18.6
\$40,000 to \$44,999	0.0	0.0	4.4	2.6	0.0	0.0	0.0	2.8	2.6
\$45,000 to \$49,999	0.0	0.0	0.0	0.0	0.0	3.1	0.0	2.7	2.4
\$50,000 to \$59,999	7.3	10.4	6.1	5.5	4.4	2.8	4.7	5.0	5.6
\$60,000 to \$74,999	4.3	5.8	29.5	0.0	9.7	5.7	3.3	7.4	8.0
\$75,000 to \$99,999	5.0	13.2	0.0	15.1	3.7	10.4	6.4	10.8	12.4
\$100,000 to \$124,999	4.0	6.5	0.0	3.7	8.6	12.8	3.1	9.3	10.9
\$125,000 to \$149,999	4.6	13.5	11.7	0.0	2.8	7.3	7.0	7.0	8.6
\$150,000 to \$199,999	2.3	15.1	13.1	4.4	10.2	9.0	15.4	9.5	12.1
\$200,000 or more	61.4	26.5	12.2	24.7	9.1	34.8	56.6	16.8	18.7

Source: National Census Data, 2018 American Community Survey (ACS) 1-year and 5-year estimates.

Figure 3 – Low-Income Populations in the Project Study Area



3.3 FACILITIES OF CULTURAL OR ECONOMIC IMPORTANCE TO MINORITY OR LOW-INCOME POPULATIONS

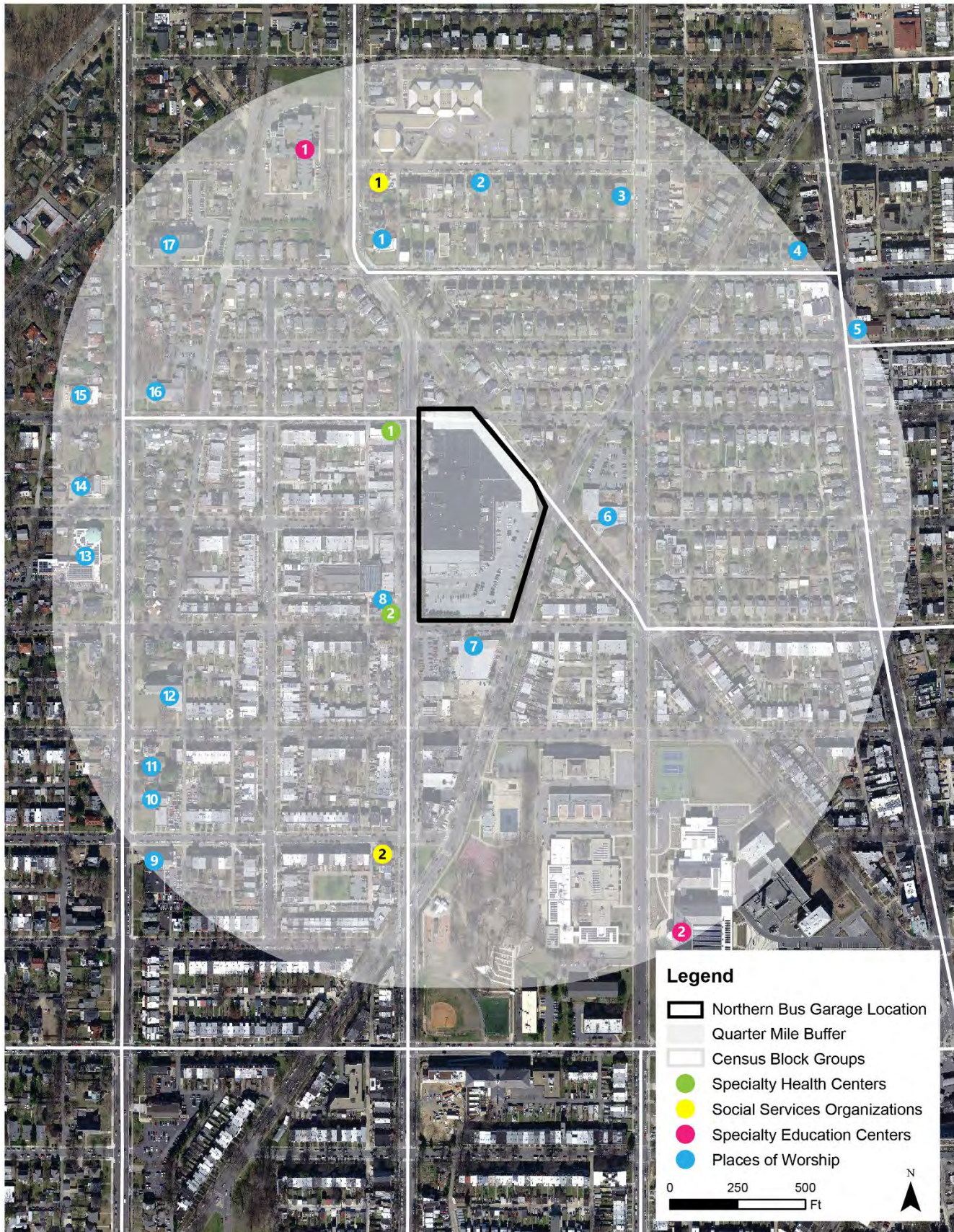
The analysis reviewed the locations of facilities that may be of economic or cultural importance to affirm the presence of EJ populations identified through the demographic analysis. As shown in **Figure 4** and listed in **Table 3**, the study area is home to over 17 places of worship, including predominantly minority- and immigrant-based congregations; two specialty health centers catering specifically to minority, underserved, and immigrant populations; two specialty schools, both serving minority populations; and two social services organizations, with one providing affordable daycare for youth minority populations and the other providing housing for the homeless. Both health centers are located on 14th Street NW across the street from the project, and three churches are located within one block of the project.

Table 3 – Facilities of Cultural or Economic Importance to Minority or Low-Income Populations

ID	Name	Address
Places of Worship		
1	St. Paul African Methodist Episcopal Church	4901 14th Street NW
2	Macedonia Church of God In Christ	1320 Farragut Street NW
3	Maranatha Gospel Hall	4910 13th Street NW
4	St Joseph Baptist Church	1203 Emerson Street NW
5	Faith Assembly of Christ	4801 Georgia Avenue NW
6	Peoples Congregational United Church of Christ*	4704 13th Street NW
7	The Ethiopian Orthodox Tewahedo Religion Church*	1350 Buchanan St NW
8	Iglesia de Dios La Promesa*	4604 14th Street NW
9	St George Antiochian Orthodox Church	4335 16th Street NW
10	Mosaic Church of the Nazarene	4401 16th Street NW
11	Iglesia Pentecostal Emmanuel	4411 16th Street NW
12	Simpson-Hamline United Methodist	4501 16th Street NW
13	Nineteenth Street Baptist Church	4606 16th Street NW
14	Washington Seventh Day Baptist Church	4700 16th Street NW
15	Capital Spanish Seventh-day Adventist Church	4800 16th Street NW
16	Church of Christ	4801 16th Street NW
17	The Church of Jesus Christ Latter Day Saints	4901 16th Street NW
Health Centers		
1	Andromeda Transcultural Health*	1400 Decatur Street NW
2	Ethio American Health Center*	4515 14th Street NW
Schools		
1	Latin American Montessori Bilingual Chater School	5000 14th Street NW
2	Roosevelt S.T.A.Y Opportunity Academy	4301 14th Street NW
Social Services Organizations		
1	Youth Organizations United to Rise Community Center	4913 14th Street NW
2	The Webster House	4326 14th Street NW

* Located within one block of the project site

Figure 4 – Facilities of Economic or Cultural Importance to Minority or Low-Income Populations



4 POTENTIAL IMPACTS

This section describes potential impacts due to the WMATA Northern Bus Garage Replacement Project. In order to determine whether the project would result in disproportionately high and adverse effect on human health or the environment, the analysis first reviewed the potential for adverse effects. For impact areas with no potential adverse effects, no further analysis was conducted because there would be no potential for disproportionately high adverse effects to EJ populations; however, resource areas that the local community identified were of concern were further analyzed. For impact areas with potential for an adverse effect, proposed avoidance, minimization, and mitigation measures were then considered to determine whether adverse effects would remain after implementation of those measures. As shown in **Table 4**, adverse effects to cultural resources and due to construction would remain following application of avoidance, minimization, and mitigation measures. These impacts were further examined to determine if adverse effects would be concentrated upon EJ populations or resources of importance to those populations.

Table 4 summarizes potential adverse effects, the avoidance, minimization, and mitigation measures committed to by WMATA, and notes whether adverse effects are expected to remain after these measures have been applied. No adverse effects are anticipated to zoning, traffic, vibration, property, public parks and recreation areas, community facilities, wetlands, floodplains, or ecologically-sensitive areas and endangered species.

Table 4 – Potential Adverse Effects

Resource	Potential Adverse Effect	Avoidance, Minimization, and Mitigation	Effects Remaining following Mitigation?
Permanent Impacts			
Air Quality	Hot spot analysis not required as the project is located in an attainment area for CO, PM2.5, and PM10. However, the community expressed concerns over air quality due to bus operations at the site.	- Bus entrance/exits equipped with two sets of doors: outer doors are standard garage doors while inner doors are high-speed to prevent air escape. Building will also be negatively-pressured to contain emissions. - All interior air treated prior to release via MERV 16 air filtration for particulate matter and chemical bonding scrubbers for gaseous vapors.	No
Cultural Resources	The project would result in an adverse effect as it would demolish the 1906 car barn, except for the façade along 14th Street NW, and it would alter the visual appearance of the character-defining facade.	- Preservation of the administration building and tower in their entirety as well as all frontage along 14th Street NE. - Full preservation/restoration conducted on all retained elements including the administration building, tower, arches, arched windows, gable entry, and chimney. - Full restoration of the 14th Street NE façade with historically accurate, matching windows but with modern materials. - Installation of a new slate roof on the administration building and tower. - Repairs to limestone and brick.	Yes (adverse effect to the historic structure cannot be avoided)

Resource	Potential Adverse Effect	Avoidance, Minimization, and Mitigation	Effects Remaining following Mitigation?
		• Use of complementary features in new construction including similar proportions in scale and repetition of elements like windows as well as cantilever rooflines referencing the historic large arch treatments on the administration building and the tower. • Reduction in building size (15 percent reduction in total gross square footage). • Reduction in massing and height of street-facing facades: - o Design heights lower than historic building. - o Rear portion of designed building at the same height or lower than existing structure except for mid-block area along Arkansas Avenue NE where car ramp goes to the roof. • Use of high-performance masonry panels instead of metal panels. • Ensured strong Art in Transit components, with exact form dependent on further development with an artist and the community. • Installation of replica streetcar tracks in the area where streetcars used to enter and/or exit the building along 14th Street NW. • Development and installation of one to three exterior interpretive signage exhibits and up to five interior interpretive signage exhibits for the building's community room.	
Noise	No moderate or severe noise impacts are expected to occur due to the project based on the NEPA analysis. However, the community has expressed concerns regarding the noise from buses and from operation of the facility.	• Rooftop mechanical units completely enclosed by building walls on the west side to reduce noise pollution. On the east side, units will not be internal, but will be located behind a brick screen to reduce noise.	No
Hazardous Materials	Existing soil and water contamination on the site is being remediated independently of the project and therefore there is no potential for adverse effects. However, the community	• Elimination of paint and body shop components of garage operations.	No

Resource	Potential Adverse Effect	Avoidance, Minimization, and Mitigation	Effects Remaining following Mitigation?
	has expressed concerns over activities that could generate hazardous materials during the operation of the facility that could adversely affect community health.		
Impacts on Water Quality, Navigable Waterways, and Coastal Zones	The facility will create surface water runoff from impervious surface cover. No adverse effect will be created as the runoff will be managed in accordance with local regulations and new stormwater best management practices will be constructed to accommodate the proposed improvements.	Green roof features will be incorporated into the building, including both tray boxes and soil-based planting.	No
Safety and Security	The project is not anticipated to negatively affect the safety or security of the adjacent community or at the facility itself. A number of measures will be implemented to improve safety and security at the site.	- MTPD office located at corner of 14th Street NE and Buchanan Street NE for greater community presence. - Addition of more windows on 14th Street NE and Iowa/Arkansas Avenues NE. - Sidewalk added along Iowa Avenue NE. - Sidewalk along northern side of garage building widened and equipped with increased lighting. - Sidewalk along 14th Street NE widened. - Signal at 14th and Decatur Streets reconstructed to improve pedestrian safety.	No
Construction Impacts			
Vibration	Since all the surrounding buildings are more than 40 feet from the project site, there is not a risk of structural damage from construction activities.	- Reduction in bedrock removal needs by 80 percent, eliminating the need for bedrock blasting. This avoids both noise and vibration impacts. - Vibration monitoring during construction. - All properties within 200 feet of the facility's property boundary will be offered the opportunity to receive a pre-existing condition survey prior to the start of construction.	No
Noise	Construction activities would comply with District and WMATA noise limits.	Construction will be limited to hours stipulated by DC regulation. Any work outside these hours will be conducted only after receiving an after-hours permit from DCRA.	Yes (noise from construction cannot be completely eliminated)

Resource	Potential Adverse Effect	Avoidance, Minimization, and Mitigation	Effects Remaining following Mitigation?
		Construction activities will follow the noise criteria specified in Section 16.7 of the <i>WMATA Manual of Design Criteria</i>.	
Traffic	It is anticipated that construction will require lane closures.	A Traffic Control Plan would be developed in accordance with the DDOT's Temporary Traffic Control Manual to manage traffic during roadway construction in the public right-of-way.	Yes (lane closures cannot be avoided)
Air Quality	Construction activities at the facility may cause nuisance dust and construction equipment emissions. These increases are not expected to adversely impact air quality either locally or regionally.	- Control measures may include minimizing the length of exposure of disturbed lands, sprinkling water and/or wood chips on exposed earth, and using tarpaulins on loaded trucks. - WMATA will require the contractor to utilize the best available mitigation measures to prevent excessive emissions or particulates and carbon monoxide from the operation of machinery. Generally, such measures include the prohibition of unnecessary idling and operation of equipment, and appropriate pollution control equipment.	Yes (nuisance dust and construction equipment emissions cannot be completely eliminated)

4.1 CULTURAL RESOURCES

The project would result in an adverse effect to historic properties as it would demolish the 1906 car barn, except for the façade along 14th Street NW, and it would alter the visual appearance of the character-defining façade. As part of the Section 106 consultation process, WMATA has identified measures to mitigate the adverse effect of these changes. The minimization developed in consultation with the community includes restoration of the primary 14th Street NW elevation; replacement of non-historic roofing and window materials with historically-appropriate materials; and design of the new structure to be compatible in scale, design elements, and materials with the historic façade. Additional mitigation to resolve the adverse effects to the building and provide a public benefit include the installation of replica streetcar tracks and design and installation of interpretive signage exhibits on topics related to the bus barn and the role it played in the development of the surrounding neighborhood. While the adverse effect to the historic structure cannot be avoided, the measures committed to by WMATA will benefit the community through educational components and by creating a structure that is compatible with the historic façade and is sensitive to the context of the surrounding neighborhood. In addition, the new facility will benefit the community, including local EJ populations, by providing offices for a community organization, neighborhood-serving retail, and space for community gatherings. The design commitments will benefit those most affected by alterations to the historic structure, specifically those who live, work, worship, or recreate in places in proximity to the building. The other community benefits will be equally accessible to EJ and non-EJ populations.

4.2 CONSTRUCTION IMPACTS

Following the implementation of avoidance, minimization, and mitigation measures, construction activities would result in residual noise, dust, and emission impacts from construction vehicles and construction-related activities. In addition, it is anticipated that lane closures would be required that would result in traffic impacts even with the implementation of maintenance of traffic measures. These construction-related impacts are anticipated to last for the duration of construction which is 3-4 years. The intensity of these impacts could vary depending on the proximity of populations to the project location itself and roadway users in the vicinity of the project study area. Specifically:

- Census Tract 20.02 Block Group 3 and 22.01 Block Group 2 have large percentages of both minority and low-income residents within ¼ mile of the study area; however, these block groups are not expected to experience adverse nuisance construction related impacts because of their distance from the project itself and because relative air quality and noise and vibration impacts attenuate significantly with distance and intervening homes and buildings.
- Census Tract 25.01 Block Group 1 has a high percentage of both low-income and minority residents as shown in **Figures 2 and 3** and could experience a higher degree of construction related impacts.
- The Ethiopian Orthodox Tewahedo Religion Church is adjacent to the project site and as a facility of importance to EJ populations, could experience a higher degree of construction-related impacts.

As noted in Appendix 10, the relevant noise and vibration impacts of the project are not anticipated to exceed District noise ordinance levels. Construction noise levels at locations 25 feet from the boundary of the construction site would typically be 75 dBA (Leq), which is below the District noise ordinance of 80 dBA for daytime activities. The residences in the study area are all greater than 25 feet from the project site.

Potential traffic impacts would be minimized through a Traffic Control Plan to manage traffic during roadway construction in the public right-of-way. Traffic closures could still result in travel delay on 13th St NW, Upshur St NW, and Iowa Avenue NW, but these impacts will affect all travelers along these roads.

4.3 CONCLUSION

Many of the impacts described in Section 4.2 would be felt by both EJ and non-EJ populations in the project area. However, as Section 3 determined that the majority of the project study area includes EJ populations, the project has the potential for adverse impacts to be predominately borne by EJ populations, requiring FTA to determine whether the impacts are appreciably more severe or greater in magnitude than the adverse effect that would be suffered by non-EJ populations. FTA's EJ Circular also requires that determinations of disproportionately high and adverse effects take into consideration "mitigation and enhancement measures that will be taken and all offsetting benefits to the affected minority and low-income populations." In evaluating the potential adverse effects from the project that remain after all minimization and mitigation measures, it's expected that construction related noise, vibration, traffic, and air quality impacts would be well below the thresholds at which they would be expected to adversely affect human health or cause community disruption (i.e. creating barriers between communities or negatively affecting existing travel patterns). The associated construction related impacts would be mitigated and minimized to the maximum extent practicable and relative nuisance related impacts will not persist after construction is complete.

As a result of outreach (see Section 5), WMATA will provide additional minimization, mitigation and community benefits as part of the project as noted in **Table 4**. Amenities provided within the building will include office space for Uptown Main Street; 27,500 square feet of retail space with a preference for neighborhood grocer; and a community room with capacity of up to 150 seating and up to 200 standing with an at-grade ADA accessible entrance (no ramp required). The new building will also include employee parking to eliminate prior issues with employees parking in the neighborhood, and will maintain the same level of shadowing for neighboring properties as the existing building.

Mitigation and minimization measures for the project have been applied equally to all affected populations in the study area (see Table 1 of the Documented Categorical Exclusion). Adverse effects associated with the project are similar in magnitude to equivalent bus garage projects by WMATA throughout the Washington, DC area and have similar impacts to populations as documented in equivalent projects. After the consideration of all avoidance, minimization, and mitigation measures and a balancing of off-setting benefits of the project, no disproportionately high and adverse effects are expected to occur on minority and low-income populations.

5 OUTREACH TO ENVIRONMENTAL JUSTICE COMMUNITIES

WMATA has been working to inform and engage the community about the Northern Bus Garage project since January 2019. Between January 2019 and May 2020, WMATA conducted nine meetings to involve the community in the construction and development process (see **Table 4**). This includes five presentations by WMATA's construction team, focused on construction plans and timelines, environmental remediation, and community impacts.

All vital documents were translated into Spanish, including the project website, meeting invitations, fliers, and banners that were positioned at the garage to announce community meetings. There was also an option for community members to call to request interpretation services for the community meetings. The project website includes several Spanish language webpages. Additionally, customers/community members were provided an option to call Metro's Customer Service line to request translation of any non-translated material on the project site.

Table 5 – Community Meetings, January 2019 – May 2020

Event	Date
Community Alliance for Upper 14 th Street meeting	January 30, 2019
Community meeting	March 11, 2019
Community meeting	April 2, 2019
Community meeting	November 18, 2019
Streetsense community workshop #1	February 4, 2020
Streetsense community workshop #2	February 11, 2020
Community meeting	February 25, 2020
Streetsense community workshop #3	March 10, 2020
Streetsense community workshop #4 (Zoom online meeting)	May 26, 2020

WMATA's retail advisory firm, Streetsense, also conducted four community workshops - including a virtual meeting after the Covid-19 pandemic interrupted in-person gatherings. The purpose of these meetings was to better understand and incorporate the community's vision for commercial development along 14th Street, NW. The new garage will include retail space along 14th Street, NW and WMATA is

developing a commercial activation strategy that includes retail concepts and streetscape enhancements that meet the community's needs.

Additionally, WMATA has been working with DC Councilmember Brandon Todd, Ward 4, and the Advisory Neighborhood Commission (ANC) 4C to address community concerns. The ANC wrote a letter of support for the project in March 2020, specifically noting the "community appreciates that WMATA is seeking input from the community at this early stage of design development and the commitment to continue with that engagement."

WMATA undertook additional community engagement from October to November 2020 to address community concerns about the project's design. Because of the COVID-19 pandemic, community engagement meetings were held virtually. The focus of each meeting is described below:

- Meeting 1 - October 13, 2020: facility redesign, floor plans, and exterior design options.
- Meeting 2 - November 2, 2020: Section 106 Consulting Parties, interim exterior design survey results, and Art in Transit.
- Meeting 3 - November 10, 2020: environmental topics including pollution minimization, site remediation, environmental design, and the agency's overall bus electrification efforts.
- Meeting 4 - November 17, 2020: final results of the exterior design survey and final design concept presentation.

Community feedback was gathered during each of these meetings and through the exterior design survey which garnered 305 responses. The survey solicited responses to questions and graphical representations of the project and allowed for open-ended responses. Responses indicated a clear preference for Option Three (of three concepts presented at Meeting 1) primarily because of how well that design integrated with the historic façade.

The final updated design for the facility reduced the total size of the facility by approximately 15 percent from original designs by eliminating some building massing. It also resulted in an 80 percent reduction in excavation, which eliminated the need for blasting; this will result in less vibration and noise for surrounding residents. Other changes made as a result of feedback include the following items:

- High-performance masonry panels on exterior
- Additional windows on 14th Street
- Additional windows on Iowa/Arkansas Avenues
- Additional brick detailing
- Reduced height along Iowa Avenue
- Incorporated Art in Transit
- Wider walkway on northern side of facility with enhanced lighting
- New walkway on west side of Iowa Avenue

To keep the community informed about the project, WMATA has established a public website at northernbusgarage.com. The community can provide feedback through several means, including email, an online web form, telephone, or ongoing community meetings.

WMATA has hired a local firm, Justice & Sustainability Associates (JSA), to assist with ongoing community engagement around the project. The firm engaged neighborhood-based organizations, including the Sixteenth Street Neighborhood Association and the Uptown Main Street organization, during the community outreach discussed above. It is currently developing a plan that will ensure



continued community involvement and information sharing as the project advances to the demolition and construction phases.

APPENDIX 13: U.S. FISH AND WILDLIFE INVENTORY AND CORRESPONDENCE

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127



<http://www.fws.gov/chesapeakebay/>
<http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html>

In Reply Refer To:

December 27, 2021

Consultation Code: 05E2CB00-2020-SLI-1032

Event Code: 05E2CB00-2022-E-01341

Project Name: Northern Bus Garage Replacement (4615 14th St NW, Washington, DC 20011)

Subject: Updated list of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>;

<http://www.towerkill.com>; and

[http://](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html)

www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chesapeake Bay Ecological Services Field Office

177 Admiral Cochrane Drive

Annapolis, MD 21401-7307

(410) 573-4599

Project Summary

Consultation Code: 05E2CB00-2020-SLI-1032

Event Code: Some(05E2CB00-2022-E-01341)

Project Name: Northern Bus Garage Replacement (4615 14th St NW, Washington, DC 20011)

Project Type: TRANSPORTATION

Project Description: Northern Bus Garage will be replaced at 4615 14th St NW in Washington, DC.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.94725166144727,-77.03186353849856,14z>



Counties: District of Columbia County, District of Columbia

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: Projects with a federal nexus that have tree clearing = to or > 15 acres: 1. REQUEST A SPECIES LIST 2. NEXT STEP: EVALUATE DETERMINATION KEYS 3. SELECT EVALUATE under the Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency key Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: The monarch is a candidate species and not yet listed or proposed for listing. There are generally no section 7 requirements for candidate species (FAQ found here: https://www.fws.gov/savethemonarch/FAQ-Section7.html). Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Hay's Spring Amphipod <i>Stygobromus hayi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8410	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED.
PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.
