

STAFF RECOMMENDATION

NWitherell

NCPC File No. 6441



**GENERAL SERVICES ADMINISTRATION BUILDING
INSTALLATION OF T-MOBILE USA TELECOMMUNICATIONS FACILITY
PRELIMINARY AND FINAL SITE AND BUILDING PLANS
633 3rd STREET, NW
WASHINGTON, DC**

Submission by the General Services Administration

February 26, 2004

Abstract

The General Services Administration has submitted plans for the installation of a T-Mobile USA Telecommunications Facility on the roof of the General Services Administration building at 633 3rd Street, NW. The facility would include three sectors of three panel antennas (all nine would be both transmitting and receiving antennas) attached to the penthouse wall and three equipment cabinets on the building's roof at the base of the penthouse. No antennas are currently located on the building.

Commission Action Requested by Applicant

Approval of preliminary and final site and building plans pursuant to 40 U.S.C. § 8722(d) and Section 5 of the National Capital Planning Act (40 U.S.C. § (b)(1)).

Executive Director's Recommendation

The Commission:

Approves preliminary and final site and building plans for the installation of nine panel antennas and three equipment cabinets on the roof of the General Services Administration Building at 633 3rd Street, as shown on NCPC Map File No. 22.00(38.00) 41320.

Requires that GSA implement a written RF safety program that mandates the use of RF Personal Protection Monitors for those working above the building's exterior roof level in front of the antennas.

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BACKGROUND AND STAFF EVALUATION

PROJECT DESCRIPTION

The General Services Administration (GSA) has submitted an application for the installation of nine transmitting and receiving antennas and three equipment cabinets on the penthouse walls and roof of the GSA Building at 633 3rd Street, NW. The building is bounded by the Center Leg Freeway on the east, F Street on the north, 3rd Street on the west, and E Street to the south. Adjacent and nearby buildings include the FBI Washington headquarters, the National Building Museum, the Albert Small Museum, Holy Rosary Church, and, across the freeway, Georgetown University Law School.

The antenna installation would include three sectors of three panel antennas each, mounted flush on the penthouse facades at the roofline. The panels measure 54 inches in length by 12 inches in width by 8 inches in depth. The panels would be painted to match the penthouse facades. The center line of the antennas would be 104 feet above street grade.

The three equipment cabinets measure 63 inches in height by 51 inches in width by 28 inches in depth and will also be painted to match the penthouse. They would be installed on a steel platform to be constructed on the roof at the base of the north façade of the penthouse.

EVALUATION

The staff recommends that the proposal be approved. The applicant will locate the antennas and the equipment cabinets appropriately to minimize their appearance, and the antennas themselves will be flush-mounted and painted to match the building. They will not be readily apparent to the public. The proposal is consistent with the Commission's Antenna Guidelines and with the Telecommunications Act of 1996 encouraging placement of commercial antennas on federal property.

The antenna locations comply with ANSI standards. The Radiofrequency (RF) assessment states that the maximum permissible exposure (MPE) limits are not exceeded at any point for occupations exposure or for general public exposure limits. There are no areas of the roof that exceed 50 percent MPE. The antennas are located high on the penthouse, above the top roof, and no direct close access to the antennas by employees is possible. However, the staff requires that GSA commit to an RF safety program for building maintenance personnel carrying out duties on the roof.

COORDINATION

The Coordinating Committee reviewed this item at its meeting on February 11, 2004 and forwarded the proposal to the Commission with the statement that the project had been coordinated with all agencies participating. The participating agencies were: NCPC; the District of Columbia Office of Planning; the District Department of Transportation; the General Services Administration; and the Washington Metropolitan Area Transit Authority.

Commission of Fine Arts

The Commission of Fine Arts approved this project at the staff level.

CONFORMANCE

Comprehensive Plan

Staff has determined that the antenna installation would not have a visual or functional effect on other federal facilities such as the FBI Washington Headquarters, on L'Enfant Streets, or on historic properties.

National Environmental Policy Act

Pursuant to the regulations implementing the National Environmental Policy Act (NEPA), the GSA has determined that the proposed project qualifies as a Categorical Exclusion. Staff review of the conclusion finds the project characteristics qualify the action and staff finds the proposal to be consistent with the determination and the Categorical Exclusion supportable.

An assessment of potential RF radiation effects of the proposed antennas at the GSA building was prepared by Wireless Systems Engineering of Sterling, Virginia, in December 2003, for the project. The assessment encompassed computer modeling to observe the Occupational Safety and Health Administration conservative exposure review scenario and Federal Communications Commission requirements. That assessment found that the planned antenna locations comply with standards of the American National Standards Institute (ANSI) ANSI/IEEE C95.1-1992, the "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," by the National Council on Radiation Protection and Measurements (NCRP), Report No. 86 (1986), and Federal Communications Commission (FCC) Guidelines for Evaluating Exposure to RF Emissions, revised on August 1, 1996 and updated in October 1997.

As with most all communications antennas, the energy from these antennas is directed toward a horizon point. As one moves away from the antenna, the power density decreases, and consequently, out and away from the antenna and at ground or street level in the vicinity of the antenna, the RF signal is very low compared with the potential exposure close to the antenna itself. All of the antennas are placed on the building in areas that are inaccessible to the public. No existing antennas are present on the project roof area.

All nine antennas are both transmitting and receiving antennas. The RF assessment does indicate that the MPE limits are not exceeded at any point for occupational exposure levels or for general public exposure limits. Because the antennas locations are relatively high on the penthouse, at the top roof, no direct close position can be achieved to place personnel in front of any operating antenna. All occupied spaces below the main roof fall beyond the exposure limit areas of potential influence and are attenuated by the building structure. No close-by occupied areas exist in any near or adjacent buildings in the vicinity of the GSA building toward the horizon, and any potential signal effect would be attenuated by the building exterior surface materials regardless.

Nevertheless, the RF report recommends, and staff strongly concurs, that GSA commit to the implementation of a written RF safety program, including appropriate training of building maintenance personnel that would carry out duties on the roof, and that the use of RF Personal Protection Monitors be mandated for those workers.

National Historic Preservation Act

GSA has determined that the installation of the antennas would not affect any historic properties, such as the National Building Museum and the Small Museum. The D.C. State Historic Preservation Office has concurred with this determination.