

**SUITLAND FEDERAL CENTER**  
NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION (NOAA)  
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE  
FACILITY (NESDIS)  
Suitland, Prince George's County, Maryland

Report to the General Services Administration

December 6, 2001

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*Abstract*

The General Services Administration (GSA) has submitted preliminary site and building plans for a new facility for NOAA's National Environmental Satellite, Data and Information Service (NESDIS) at Suitland Federal Center (SFC) in Prince George's County, Maryland. The new facility will be located in the northwestern portion of the SFC campus. Two levels of the building (a single level of office space, and a level of underground parking for 387 cars) will be partially below grade. These two floors, which will not be visible from outside the SFC campus, will be covered with a domed, landscaped roof. The most prominent part of the building will be a four-story tower fixed with eighteen receive-only dish antennas, and two receive-and-transmit dish antennas. The building itself is designed to reflect NOAA's mission of environmental stewardship and, with the exception of the high-tech tower, is intended to read like an extension of the existing landscape; however, the amount of parking associated with the new building exceeds the Comprehensive Plan's recommended parking ratio of one parking space for every two employees. Prior to the submission of final site and building plans for the NESDIS facility, GSA should consult with NCPC staff in an effort to reduce the amount of parking associated with this new facility.

*Authority*

Section 5 of the National Capital Planning Act of 1952, as amended (40 U.S.C. 71d).

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*Commission Action*

The Commission:

- **Commends** GSA for designing a architecturally distinctive, state-of-the-art building which exemplifies NOAA's mission and which will contribute to overall revitalization efforts in Suitland;

- **Approves** the preliminary site and building plans for the National Environmental Satellite, Data and Information Service (NESDIS) facility at Suitland Federal Center in Prince George's County, Maryland, as shown on NCPC Map File No. 3205.00(38.00)-40982, *except* for the amount of parking;
- **Recommends** that GSA continue to consult with NCPC and refine their Transportation Management Plan in an effort to further reduce the amount of parking associated with NOAA/NESDIS facility at the Suitland Federal Center; and,
- **Suggests** that GSA consult with M-NCPPC regarding their desire for additional landscaping around the new facility, and with the Department of the Environment, the Maryland Historical Trust and the State Highway Administration as the construction of the NESDIS facility progresses.

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## BACKGROUND AND STAFF EVALUATION

### *DESCRIPTION OF PROPOSAL*

The General Services Administration has submitted preliminary site and building plans for a new facility for NOAA's National Environmental Satellite, Data and Information Service (NESDIS). NESDIS's mission is to provide and ensure timely access to global environmental data from satellites and other sources to promote, protect, and enhance the Nation's economy, security, environment and quality of life. To fulfill its responsibilities, NESDIS acquires and manages the Nation's operational environmental satellites, provides data and information services, and conducts related research. The new facility is being constructed to accommodate NOAA's educational outreach program to the surrounding Suitland community, including educational tours of the Satellite Operations Control Center and Launch Control Center Room. During times of satellite launches the facility will operate around the clock and will accommodate additional employees and visitors.

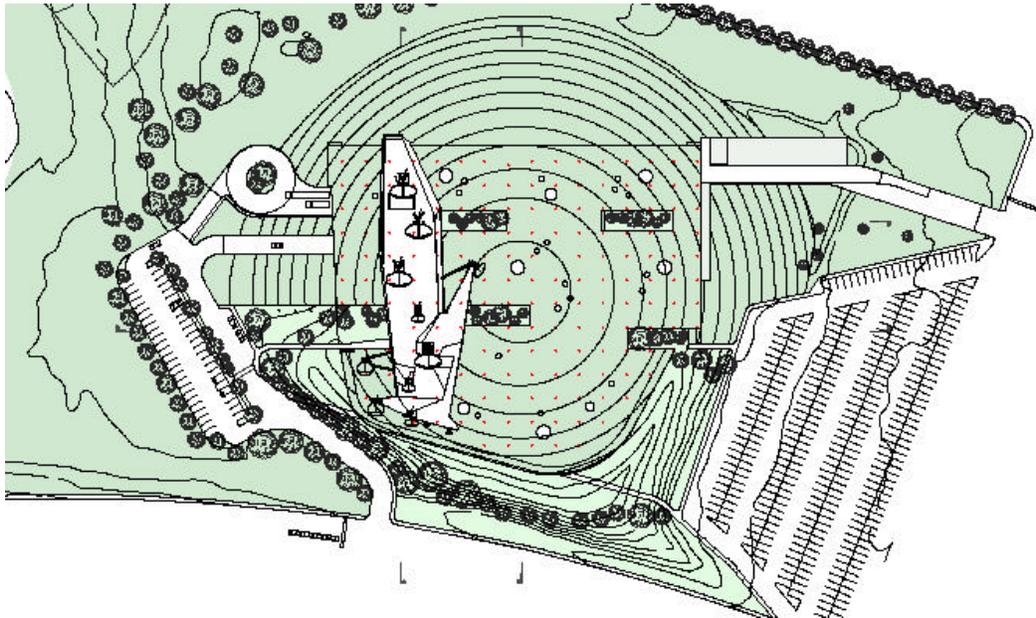
The majority of NOAA/NESDIS employees are currently located at SFC in Federal Office Building (FOB) 4, with a small number of employees located in leased space in the Suitland community. The current NESDIS facility is in disrepair and does not meet NESDIS technological space needs. The new facility will consolidate the NESDIS offices, as well as the mission-critical antennas that are currently mounted on top of, and adjacent to, FOB 4.

### Location and Site

The proposed NOAA/NESDIS facility will be located in the northwest corner of Suitland Federal Center in an unimproved area that contains three baseball fields and a wooded area. The site has frontage on Suitland Road to the north and Swann Road to the south within the campus. The site is located between Suitland Federal Building 2 (SFB 2) and its surface parking lot to the east, and the central heating and refrigeration plant on the west. The site slopes from north to

south (Suitland Road to Swann Road), with a change in elevation of approximately 20 feet. The site covers approximately 15 acres.

### Building Program



The NESDIS facility contains a total of 208,000 square feet in a single floor of office space, a mezzanine level, a level of below grade parking and a four-story tower. The facility's office and parking levels will be built into the site's natural 20-foot drop in grade. As a result, the underground parking, office space and mezzanine will be covered with a sod roof and, as a result, will not be visible from Suitland Road outside the campus – the “green” roof will form a landscaped dome. This portion of the building is referred to as the “mat.” From within the campus, where the site is approximately 20 feet lower, the first floor and mezzanine level will be visible. The floor plate of the “mat” measures 430 feet by 350 feet and will house the offices that process the data obtained from the Satellite Operations Control Center (SOCC) located in the tower element (referred to as the “bar”). The large open floor plate allows for maximum flexibility, while still providing shared support spaces such as a cafeteria, large outdoor courtyard, exercise facility and a service ring that contains restrooms, kitchens and copy areas. The entrance to the facility will be at the mezzanine level, where the building's public spaces such as conference rooms and a conference center with auditorium seating are located. Throughout the “mat”, skylights and large landscaped courtyards puncture the “green” roof to let light into the offices and underground parking garage.

The most visible feature of the new building is the “bar”, which is symbolic of the high-tech NESDIS mission, and contains a series of dish antennas that receive the RF signals that carry data being downloaded from orbiting satellites. From Suitland Road approximately 52 feet of the four-story “bar” will be visible over the landscaped dome (from within the campus the tower feature will be 77 feet tall). The “bar” will be oriented perpendicular to Suitland Road and will

be clad in a fiber-reinforced cement panel with a stone-like appearance, with perforated screen panels allowing light into the building.

The “bar” will be mounted with 20 dish antennas on platforms at various heights and sizes, depending on the function of each antenna. Five of the antennas will measure 10 meters in diameter; five will measure between five and six-and-a-half meters; and the remaining ten antennas will measure roughly two meters in diameter. All of the antennas will face a southerly direction, away from the Suitland community, and all but one of the antennas either currently exists on the SFC site or will replace in-kind the existing antennas. A portion of the site adjacent to the visitor parking has been reserved for a future antenna farm should the need arise for additional antennas. Eighteen of the 20 antennas will be receive-only, and the remaining two antennas will be transmitting and receiving.

### Landscaping

The undeveloped portions of the site with its existing turf grasses will be left undisturbed. However, around the perimeter of the site, near the surface parking lot and entrance drive, new native trees and shrubs will be planted. The existing drainage swale on the property located close to Swann Road will be maintained as part of the new facility.

The “green” roof system over the “mat” will be planted with a soil mixture over a drainage board, insulation and necessary waterproofing. The roof will be planted with a variety of perennial plantings, such as mixed wildflowers and phlox, which will require periodic maintenance. A mixture of large and small trees, as well as shrubs, will be planted in the courtyards and the same species of trees and shrubs will be planted around the site to help the “mat” visually blend with the rest of the site.

### Employees

The building will initially house 549 NOAA employees, 539 of whom currently work on the SFC campus. The remainder will come from off-site locations in the Suitland area. NOAA estimates that by 2021 there will be 648 employees working in the building. (See chart that follows for proposed employee projections in five-year intervals.)

### Parking and Access

A main entrance to the new facility will be provided off of Swann Road. The entrance will provide access to the building’s main entrance, as well as the surface parking lot, the underground parking entrance and the loading berths. The parking garage exit and the building’s mechanical plant will be located on the opposite side of the building, near Gate 1 at Suitland Road. The parking garage will provide a total of 387 parking spaces in a single underground level. Forty-nine additional spaces for visitors and contractors will be located in a surface parking lot near the building’s entrance (for a total of 436 on-site spaces). Off-site, in the adjacent surface parking lot associated with SFB 2, 64 additional parking spaces will be designated for NOAA employees, bringing the total number of parking spaces for employees at the new facility to 500. NOAA intends to use the 64 spaces in the SFB 2 parking lot on an

interim basis until the SFB 2 site is redeveloped. As the number of employees increases and TDM strategies (such as car pooling, flex-time, alternative work schedules, staggered work hours and teleworking) are fully implemented, NOAA expects that the demand for parking spaces will decrease. The following table summarizes the existing and proposed parking breakdown:

	<b>2001</b>	<b>2006</b>	<b>2011</b>	<b>2016</b>	<b>2020</b>
<b>NOAA Employees</b>	549	576	599	623	648
<b>NOAA Designated Parking Spaces</b>	500	500	436	402	392
<b>Parking Space Breakdown</b>	387 building 49 surface 64 SFB 2	387 building 49 surface 64 SFB 2	387 building 49 surface	357 building* 49 surface	347 building* 49 surface
<b>Parking Ratio**</b>	1/1.11	1/1.15	1/1.37	1/1.54	1/1.65

\* Garage spaces would be converted to storage space.

\*\* Ratio of space/per employee (ratio includes visitor parking).

NOAA submitted a preliminary Transportation Management Program (TMP) for the NESDIS facility as part of the NESDIS submission, but noted that a more extensive TMP would be submitted in conjunction with the master plan for the entire SFC campus. The document summarizes existing conditions at SFC and lays out future goals to reduce traffic in and around SFC and reduce the amount of parking on the campus. These goals include:

- Implementing TDM strategies in an attempt to approach NCPC employee parking ratios,
- Reducing the impacts of trips generated by SFC on the local and regional network; and,
- Maximizing the use of Metro.

### *COORDINATION*

Staff has worked with GSA and NOAA for approximately one year in preparation of the NOAA/NESDIS submission and to address issues related to lack of an existing master plan at SFC. GSA completed an Environmental Impact Statement (EIS) for the Programmatic Development Plan and Phase I Implementation for the campus. This forms the framework for a future master plan at SFC. Phase I of that plan is the new NOAA facility, and completion of the EIS constitutes NEPA compliance for the NESDIS building. The Commission commented on the Draft EIS for the Programmatic Development Plan and Phase I Implementation at the September 6, 2001 meeting. In September of 2001, GSA produced the Final EIS and subsequently, in November 2001, GSA announced the Record of Decision (ROD), choosing Alternative A, the medium density plan, for future growth at SFC. The next two phases of the Programmatic Development Plan will require completion of a master plan for SFC and separate environmental assessments. Staff continues to have ongoing discussions with GSA on developing a final master plan document for SFC.

In accordance with Commission policy, the proposed NESDIS facility was referred out to the following agencies for comment: Maryland Department of Planning, Maryland-National Capital Park and Planning Commission (M-NCPPC), and the Metropolitan Washington Council of Governments (MWCOG). The following comments were received from the agencies:

#### M-NCPPC

The Prince George's County Planning Board recommended approval of the NOAA/NESDIS facility and requested consideration of additional landscape materials at the site entrance and at the entrance to the parking structure.

#### Maryland Department of Planning

The referral agencies found the proposal consistent or generally consistent with their plans, programs and objectives. Three agencies, the Department of the Environment, the Maryland Historical Trust, and the State Highway Administration recommended further consultation as the project progresses.

#### MWCOG

Metropolitan Washington Council of Governments had no comment on the project.

#### *EVALUATION*

Staff recommends approval of the preliminary site and building plans for the NOAA/NESDIS facility, with the exception of the amount of parking proposed at the facility. The facility has a unique design that is intended to depict NOAA's mission, with its numerous dish antennas and earthen roof representing NOAA's high tech mission and environmental stewardship. The new facility will allow NESDIS to vacate their existing substandard office space at SFC. The NOAA/NESDIS building will be the first new facility at SFC since the early 1990s when the NMIC was constructed, and the first after the development of the SFC Programmatic Development Plan. The NOAA facility, followed closely by a new Census building or buildings and the demolition of at least one of the existing buildings at SFC (FOB 4 and possibly FOB 3), will begin to give the campus, and the community at large, a bold image consistent with high tech research and development campuses. This building comes at a time when the State of Maryland, and Prince George's County in particular, is undertaking a variety of redevelopment projects in both the commercial and residential areas of Suitland. The redevelopment of SFC will provide a federal investment catalyst to make this local revitalization more successful.

Staff has met with the applicant on a number of occasions to discuss the amount of proposed parking associated with the new building in hopes that the Comprehensive Plan parking ratio of one space for every two employees could be met. In the short term, NOAA's parking impacts are significant on the SFC campus because 436 new on-site parking spaces are proposed, with another 64 dedicated to NOAA employees – 500 total spaces for 549 employees, 539 of whom already work at SFC. This results in a net increase of 436 parking spaces on the SFC campus and a

parking ratio of 1 space for every 1.22 employees – well over the existing campus-wide ratio of 1 space for every 1.48 employees and the recommended ratio of 1 space for every 2.0 employees. (The TMP provided by the applicant estimates a parking ratio of 1 parking space for every 1.11 employees when the building first opens; however, this ratio is based on the inclusion of the 49 visitor parking spaces. Visitor parking should not be used for employee parking or the calculation of the parking/employee ratio.)

Staff initially raised concerns about the amount of parking in conjunction with its review of the Draft EIS for the Programmatic Development Plan and Phase I Implementation. At that time, GSA proposed a net increase of 500 parking spaces on the campus associated with the NOAA facility. In the Final EIS, GSA committed to providing no net increase in the current parking supply provided that the space is not needed for swing space during construction. The proposed NOAA submission is inconsistent with that commitment by GSA and should be amended accordingly.

The applicant has submitted a TMP that begins to respond to staff's concerns, but there are still too many new parking spaces proposed. The use of underground parking, which is one of the recommended policies in the Comprehensive Plan, is one positive action associated with the proposed parking plan. However, the proposal to provide additional off-site parking for NOAA employees is inconsistent with the goals of reducing single-occupancy-vehicle trips to SFC. This is particularly true because the new Metrorail Green Line opened in January 2001 at the edge of the SFC campus (staff is cognizant that a more effective internal shuttle system would be necessary to transport employees to the NOAA facility given its distance from the Metro station). Staff hopes that the applicant's proposal to gradually reduce the parking ratio over a 20-year period is successful, but finds that the reduction may be even more difficult to achieve if nearly every employee has a dedicated parking space when the facility opens.

Staff believes that the following measures should be considered to reduce the number of spaces at the proposed NOAA site:

- The visitor parking should be signed to prohibit employees from parking in the lot, thus reducing the available parking for employees.
- Existing parking spaces should be removed in order to provide for no net increase of parking spaces at SFC, ideally in the SFB 2 lot closest to the proposed NOAA facility.
- No off-site spaces should be identified in the adjacent lot for NOAA employees.

Implementing the above actions would result in 387 dedicated underground parking spaces for NOAA employees, a ratio of one space for every 1.4 employees. This would begin to approach the Comprehensive Plan parking ratio of one space for every two employees.

Prior to submission of the final site and building plans, staff will continue to work with the applicant in an effort to reduce the proposed parking ratio.

### Federal Capital Improvements Program

This project is included in the Federal Capital Improvements Program (FCIP), FYs 2002–2007, adopted by the Commission on July 3, 2001.

### Comprehensive Plan

The proposed location of the NESDIS facility is consistent with the Comprehensive Plan for the National Capital. The Federal Facilities Element designates the Suitland Federal Center (SFC) for Research, Development and Testing Facilities with a scientific or technological purpose. Planned development for the site would accommodate 648 employees at final build-out, all of whom would be relocated from existing locations in the immediate Suitland area. Excluding parking for visitors, a total of 387 parking spaces are proposed. The Comprehensive Plan parking standard for the area is one employee parking space for every two employees, which would permit 324 parking spaces. A TMP should clarify any unique parking needs that may exist on the site that would require employee parking spaces in excess of the number normally permitted. Metrorail serves the SFC although some form of shuttle service may be required to provide convenient access to the site of the planned facility.

### National Historic Preservation Act

The Maryland Historical Trust (the Maryland SHPO) concurred with GSA's determination that the project would have no adverse effect on historic properties at the SFC. No further historic preservation consultation is required for this project.

### National Environmental Policy Act

In conformance with the National Environmental Policy Act (NEPA), GSA completed a Final Environmental Impact Statement for the Suitland Federal Center programmatic development plan and Phase I implementation (the NOAA Headquarters Building) on September 21, 2001. GSA accomplished a Record of Decision pursuant to NEPA requirements in November 2001.

Phase I of the Programmatic Development Plan is the new NOAA/NESDIS facility that will have a limited or no impact on any significant or substantial vegetation. Nevertheless, staff will monitor Phase I and succeeding implementation of the Suitland Federal Center master plan to ensure important steep slope vegetation is maintained and enhanced to achieve stormwater mitigation and best management practice implementation.

Other actions committed to in the Record of Decision include undertaking necessary roadway and signal improvements, in coordination with Prince George's County authorities, to ensure that intersections surrounding the Suitland Federal Center operate at an acceptable Level of Service (LOS). Also, GSA will conduct detailed analysis of eight-hour CO concentrations affecting air quality at Suitland/Silver Hill Roads as future development progresses. These effects, however, are not related to the Phase I implementation.

The NOAA project will have limited environmental effects to the Oxon Creek watershed that flows to the Potomac River. However, GSA in its Record of Decision has committed to:

- Locating structured parking beneath the building.
- Designing stormwater facilities to minimize potential contamination of water resources, maintain existing drainage patterns and control erosion and sediment.

Surface runoff will be investigated as to its potential to be directed into shallow landscaped depressions containing appropriately selected plant materials. These depressions are designed to incorporate many of the pollutant removal mechanisms that operate in forested ecosystems. Specific designs may vary considerably, depending on exact site constraints.

The Phase I NOAA headquarters project will involve the relocation of existing NOAA antennas currently onsite at the Suitland Federal Center. GSA has specified the following measures to be implemented involving radiofrequency emission effects of the many proposed antennas involved with its development. These include:

- Designating restricted access to all areas where field strengths exceed acceptable levels.
- Providing rooftop shielding on the NOAA building.
- Conducting a detailed radiofrequency study and developing appropriate RF communications safety plan addressing any potential identified effects during Phase II of development at SFC.

Finally, in consideration of vegetation and habitat effects, GSA in its Record of Decision has committed to the following efforts in the implementation of the NOAA project and during future phases of the development plan:

- Designs that will minimize impervious surface and promote erosion and sediment control.
- Preparation of geotechnical studies prior to construction.
- Provide afforestation and landscaping in disturbed areas.
- The creation or maintenance of vegetative buffers around existing and potential wildlife habitat areas.

Staff finds that the proposed NOAA plans are environmentally acceptable provided that GSA fully implements the measures identified above.