

STAFF RECOMMENDATION

E. Keller

NCPC File No. MP98/6406



NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION
REVISED MASTER PLAN (INFRASTRUCTURE MANAGEMENT PLAN) and THE
NATIONAL MARITIME TECHNOLOGY INFORMATION CENTER PRELIMINARY AND
FINAL SITE AND BUILDING PLANS
Bethesda, Montgomery County, Maryland

Submission by the Department of the Navy

December 30, 2003

Abstract

The Department of the Navy requests approval of a submitted revised and updated Master Plan for the Naval Surface Warfare Center, Carderock Division, in Montgomery County, Maryland. The Revised Master Plan introduces the development of approximately 62,000 additional square feet of federal building space after the relocation and demolition of various existing structures. The employment level would essentially remain the same at approximately 1,700 personnel. The submission also includes the preliminary and final site and building plans for the initial phase of the Plan, the construction of the National Maritime Technology and Information Center.

Authority

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

Executive Director's Recommendation

The Commission:

Approve the Revised Master Plan for the Naval Surface Warfare Center, Carderock, as specified in the report, *Infrastructure Management Plan, NSWC Carderock Division*, dated August 2003, **except for** the identified surface parking spaces of the Plan, apart from the parking required for the National Maritime Technology and Information Center.

Approve the preliminary and final site and building plans for the National Maritime Technology and Information Center, as shown on NCPC Map File No. 3108.10(38.00)-41272, in Bethesda, Montgomery County, Maryland, and

Recommend that the Navy:

- Designate an Employee Transportation Coordinator (ETC) at NSWC Carderock to initiate programs to adhere to Transportation Management Goals (TMP).
- Prepare an action plan for NSWC Carderock detailing how the employee parking ratio of the Commission’s Comprehensive Plan will be met. This action plan should be completed within one year, or prior to the submission of the preliminary design of the Engineering Management and Logistics Facility.
- Submit a revised parking plan for Commission approval within one year or with the submission of the preliminary design of the Engineering Management and Logistics Facility. The revised parking plan must include:
 - An updated employee survey.
 - A commitment to undertake specific TDM strategies.
 - The provision for a complementary shuttle service to Metrorail during peak demand periods generated by conferences at the new NMTIC.
- Coordinate all future building development and construction specified in the Master Plan with the National Park Service to ensure the maintenance and effectiveness of the proposed landscape buffers at the south perimeter of the NSCW Carderock, adjacent to the Clara Barton Parkway, and to demonstrate to the Commission the input of the Park Service on all development occurring at that area of NSWC.

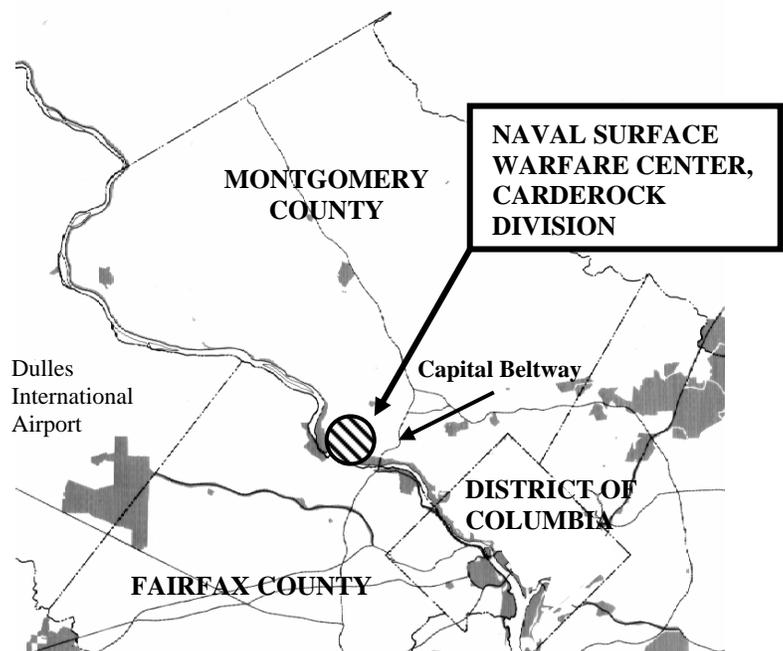
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BACKGROUND AND STAFF EVALUATION

DESCRIPTION OF PROPOSAL

The Department of the Navy (DON), pursuant to Section 5 of the National Capital Planning Act has submitted a Revised Master Plan for the Naval Surface Warfare Center, Carderock Division (NSWC) in Bethesda, Montgomery County, Maryland, and preliminary and final site and building plans for construction of the first main project improvement of the plan, the National Maritime Technology Information Center.

NSWC occupies 184 acres immediately west of the Capital Beltway (Interstate Route 495). NSWC is bounded on the south and west by the Clara Barton Parkway, a National Park Service facility that is



REGIONAL LOCATION

primarily a roadway for recreational purposes, but is also utilized as a commuter transportation route to and from the District of Columbia and Montgomery County, Maryland. Immediately south of the NSWC are the C&O Canal National Historical Park and the Potomac River. To the north is MacArthur Boulevard, and beyond, single-family homes on the hills.

The submitted Revised Master Plan provides a framework for establishing the vision and development goals for the NSWC site. These goals are consistent with the U.S. Navy's Regional Shore Infrastructure Planning (RSIP) guidance, which includes three policy objectives: reduce building footprints and costs; increase existing capabilities and sustainability; maximize any potential efficiency.

The mission of the Bethesda site is to provide research, development, training, and engineering support (RDT&E), Fleet support, and in-service engineering for surface and undersea vessel hull, mechanical, and electrical (HM&E) systems and propulsions; logistics research and development; and support to the maritime industry. A total of 1,707 people work at the NSWC with the facility organized into six business units known as directorates. Each directorate is responsible for special technical areas of seafaring operations pertinent to the U.S. Navy and includes:

- Total ship systems
- Business, tactical, and strategic services
- Hydromechanics
- Survivability, structures and materials
- Ship signatures
- Machinery, research and engineering

Since late in the nineteenth century, the NSWC, and particularly the Carderock Division research and planning activities (established in the early 1920-30s), has been a leader in the development of technologies that are intrinsic to the mission of the U.S. Navy and maritime industry.

Proj. No.	Funding Yr.	Description	Associated Demolitions	SF	Estimated Cost
P-246	FY 03	National Maritime Technology Information Center	Bldg. 103	50,000	\$10.2 M
P-302	FY 03	High Security Main Gate and Visitor Center/Lot Upgrade	N/A	4,000	\$1.4 M
P-188	FY 06	Engineering Management and Logistics Facility	Bldgs. 8, 30, 121, 124, 126, 127, 128, 129, M, N, T-40	71,800	\$13.5 M
P-102	FY 09	Dynamics Laboratory	Bldgs. 29 and 193	44,700	\$11.2 M
P-304	FY 11	Ship Virtual Prototyping Laboratory	Bldgs. 31, 125, 191, 192 and L	62,000	\$12 M
			TOTAL	232,500	\$ 48.3 M

Project Totals

Bldg. No.	Funding Yr.	Description	SF	Estimated Cost	
1	FY 02	Mezzanine Extension	7,000	\$920K	
4	FY 02	Surface Ship Model Prep. Facility	3,000	\$455K	
18	FY 02	LDV Lab Extension Bldg.	2,000	\$495K	
9	FY 05	Shop Support Addition	2,600	\$450 K	
52	FY 05	Fire Department Berthing Expansion	3,000	\$850K	
			TOTAL	17,600	\$3,170K

Type	SF	Estimated Cost
MILCON	232,500	\$48.30 M
MINCON	17,600	\$3.17 M
Demolition	-188,249	\$2.09 M
TOTAL	61,851	\$53.56 M

MASTER PLAN PROJECT SPACE AND ESTIMATED MAGNITUDE COST

Currently, there are 111 buildings at Carderock, accounting for approximately 1.85 million square feet of building floor area. Pursuant to naval planning, the NSWC management is constantly evaluating facilities in order to leverage opportunities to consolidate facilities through new construction and demolition to meet objectives of research and the overall mission. The research and development efforts require specialized facilities. These facilities include the David Taylor Model Basin (Building 4), the Maneuvering and Seakeeping Basin (Building 18), and the Non-Magnetic Complex (Buildings 80, 81, and 82). In addition, specialized laboratory facilities are located throughout the Bethesda site and play important crosslink-collaboration roles in the naval specialty areas.

The Revised Master Plan illustrates the continued progress of anticipated Navy funding of construction projects that identifies land areas at the NSWC for further RDT&E and industrial

expansion. The proposed development areas are conceptual and would require further analysis as specific project programming and requirements are determined. Nevertheless, major features of the Revised Master Plan include expansion areas for RDT&E and industrial functions; realignment of the access road from Gate 3; and buffering of the residential neighborhood to the north and the NPS lands to the south. Programmed projects that are submitted in the Revised Master Plan include:

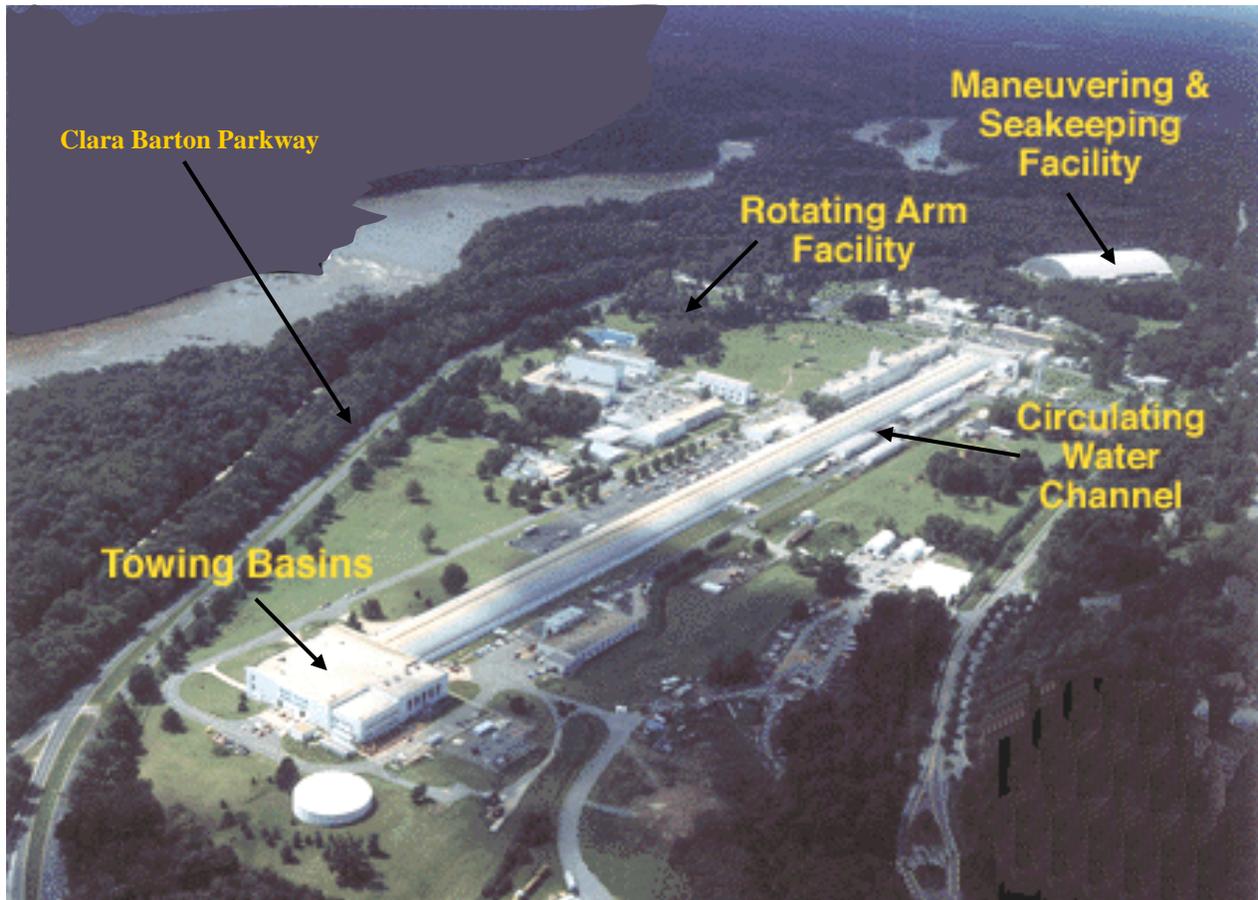
- National Maritime Technology Information Center. A 50,000-square-foot building that will have a 300-seat auditorium (secret level), video teleconferencing/ conference rooms, breakout rooms, cafeteria, and credit union. Together with the construction of a “town square” concept will be developed that features the integration of administrative uses, support services, and conference space. The plans for this building are consistent with the goals and objectives of the future development plan.
- Engineering Management and Logistics Facility. A 67,000-square-foot building to consolidate ten major business support functions. This building will be part of a new “town square,” in which administrative uses, support services, and conference space will be located within a single complex. This project is not only consistent with the goals and objectives of the future development plan, but is a good example of sustainable planning.
- Dynamics Laboratory. This structure would be 44,700-square-foot building to assess dynamic effects from weapon of various configurations. This is the first of two projects, which together will provide a Ship Integration and Dynamics Facility.
- The Ship Virtual Prototyping Laboratory that would be a 62,000-square-foot building providing space to design ships and ship systems. This is the second of two projects, which together will provide a Ship Integration and Dynamics Facility. This project, in conjunction with related building demolitions, will result in a reduction of building footprint and is consistent with the goals and objectives of the future development plan.
- Security Building and Additional Perimeter Control Initiative. This effort would be initiated pending results of detail analysis of concerns and results of siting study.

The submitted Master Plan for the NSWC imparts a direction for development decisions regarding necessary programs. While the primary mission of the NSWC site is for RDT&E, and this mission is expected to continue into the future, the long-term plan must also include provision for services that improve the quality of life for those who work at the site. Typical services range from recreation facilities such as ball fields and workout facilities to dining and child development centers. Based on the analysis presented in the Plan, land for construction of new facilities at the NSWC is limited. Therefore, the Plan indicates new construction is to be considered only after efforts have been undertaken through space planning, consolidation, and expansion of current facilities by constructing additions. Integral to the long-term building plan would be the objective to reduce the impact on the environment by avoiding development in environmentally sensitive areas. In addition, adherence to Antiterrorist Force Protection (ATFP) standoff requirements is required for both new construction and major improvement projects.



**NSWC CARDEROCK CAMPUS
ILLUSTRATED BY
WHITE INFILL AREA**

EXISTING SURROUNDING LAND USE AT NSWC CARDEROCK



AERIAL VIEW OF NSWC CARDEROCK, AS SEEN FROM NORTHEAST, LOOKING TOWARD THE POTOMAC RIVER

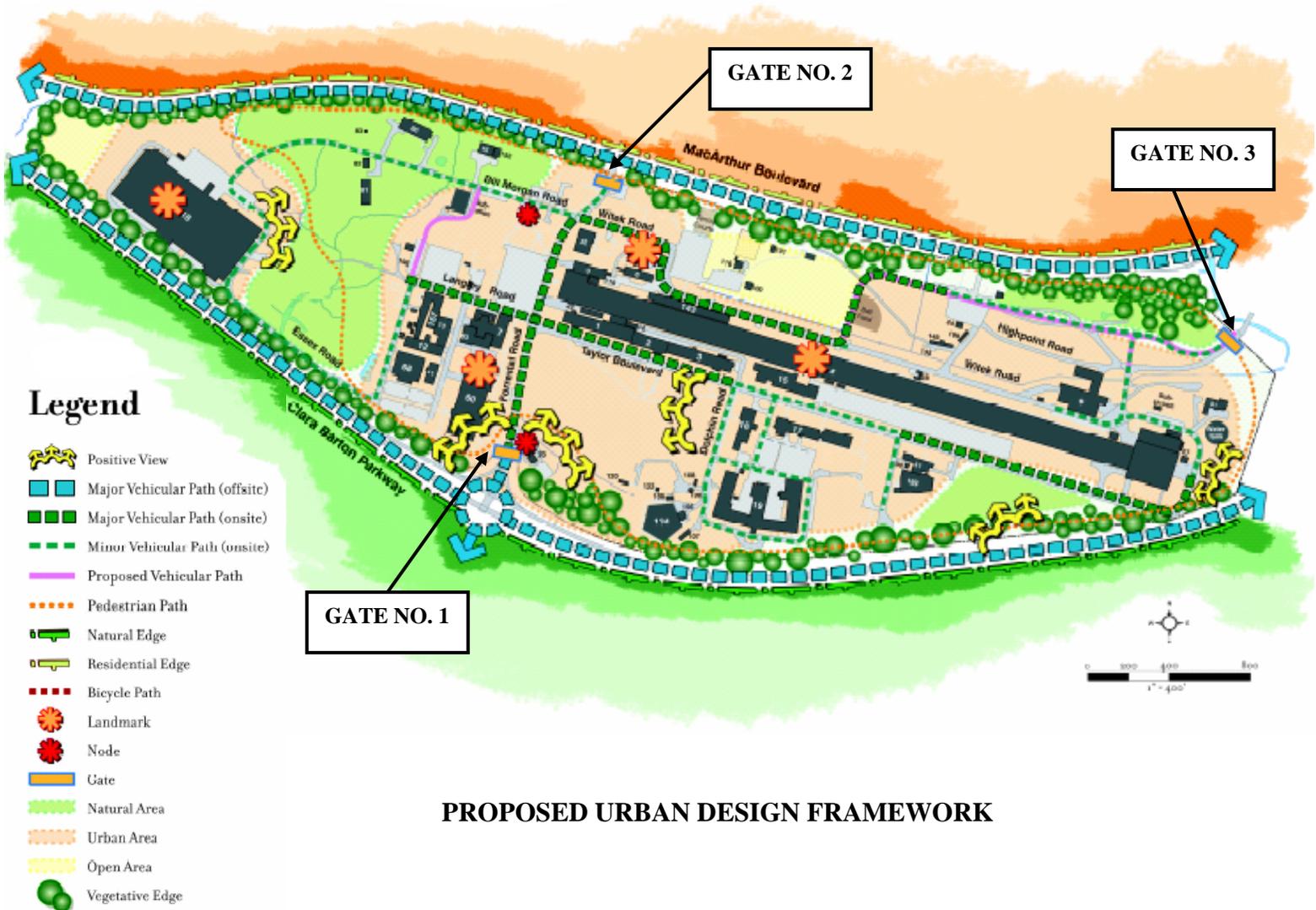
A proposed urban design framework has been developed in the Plan to meet the objectives above and addresses changes that are summarized below.

- Pathways: The major change is the realignment of Highpoint Road toward the north, which creates a new east-west pathway north of Building 9 and the north end of the reservation.

- **Districts:** The urban area will extend south from Building 4, encompassing the existing parade ground and open area. Any development within this area should be sensitive to the historical significance of Buildings 1, 2, 3, and 4 as well as the ceremonial function of the parade ground. In addition, the urban area will extend north to the realigned Highpoint Road.
- **Nodes (high activity areas for personnel interaction):** Upon the demolition of Building 103, the existing node will be relocated to the new facility that is part of the National Maritime Technology Information Center (discussed in detail later in the report). At another location, renovation of the Visitor's Center will enhance this existing node.
- **Landmarks:** The landmarks identified at the NSWC will remain unchanged.
- **Edges:** The existing vegetative edge along the north perimeter will be strengthened with the implementation of the site development plan.
- **Views:** The following effects on views are anticipated: Positive views will exist from the residential areas north of the site looking toward the proposed landscape buffer along the north perimeter. Positive views will exist from the Clara Barton Parkway south of the site looking toward the proposed landscape buffer along the south perimeter.

Proposed transportation and circulation improvements for the NSWC Revised Master Plan are based on current programming requirements and the potential need to expand into the redevelopment area west of Building 9. The site development plan (See page 11) illustrates the future transportation and circulation pattern for the NSWC site.

The redesign of three gates at the NSWC facility would also be important to the Plan's implementation. The purpose of the changes is to bring the gates into adherence with ATRP criteria, create more efficient truck and service circulation, and provide access to the proposed National Maritime Technology Information Center in a more direct and seamless fashion.



Gate 1 – The Plan recommends the redesign of Gate 1 for security purposes. The new design would involve a serpentine roadway that prevents automobiles from establishing a high speed to rush past security. Another element of the future gate design would be to remove the Sentry structure from the road area and relocate it to the side of the travel way.

Gate 2 – This effort is a revision in so far as the gate is currently not used for access from MacArthur Boulevard. However, with the future construction of the Information Center, the conference center will attract an increased number of visitors who will use this gate. The new design would include a serpentine roadway that prevents automobiles from building up speed.

Gate 3 – As the truck access point to the NSWC, Gate 3 would be redesigned to adhere to ATFP standards. In addition, the gate redesign will include the realignment of Highpoint Road to limit truck movement into the industrial area. The previous route took trucks between Buildings 9 and 4. The new route will provide more direct access to the whole site and minimize disruption of activities on the east side of the campus. In addition, to comply with DoD ATFP standards, a new shipping and receiving facility should be constructed adjacent to a renovated Gate 3. This will remove the mail receiving facilities from a primary gathering facility, reducing the vulnerability to tainted and explosive mail impact on a larger population of employees.

The most significant alteration to the roadway network is the realignment of Highpoint Road so that it runs parallel to MacArthur Boulevard from Gate 3, curves south at the ballfield, then intersects with Witek Road. This road realignment provides numerous benefits to the area, including elimination of non-industrial-related traffic in the industrial zone, expansion of acreage available for both industrial uses north of Building 9 and RDT&E uses west of Building 9, and reduction of the amount of land dedicated to meet ATFP road standoff criteria by combining perimeter and roadway setback requirements. As obsolete facilities are removed, additional land will become available to create a tree-lined boulevard on the most heavily traveled routes, linking the site's main areas. Building upon the current network of sidewalks, new sidewalks are proposed to parallel the tree-lined boulevards. These pedestrian routes are critical to facilitate the expeditious movement of people and establishes a walkable campus. In terms of transit service, Montgomery County does not plan on increasing or changing service to the NSWC due to current low ridership levels. Montgomery County anticipates keeping the route since it provides a convenient turnaround area for the Ride-On Bus system vehicles at this route location. Generally, as development increases at the NSWC the amount of parking available in the central area of the site will decrease. Consideration would also be given to realigning parking areas to conform to ATFP standards and encouraging use of the remote lots on the eastern section of the site in accordance with the Plan.

At present the parking employee ratio of the facility is one space per 1.25 employees and does not adhere to the NCPC Comprehensive Plan parking ratio identified for the NSWC of one space per two employees. As proposed, the Plan intends to meet the Comprehensive Plan goal by maintaining the Navy shuttle bus to the Navy Yard and removing parking areas proposed in the Master Plan for new building sites. Assuming a maintained employee level of 1,700 in the workforce at the NSWC, as specified in the Plan, the objective would be to develop 850 parking spaces in the implementation of the programmed projects. However, the plan identifies an undocumented requirement of an additional 212 spaces in the reconfigured extent of parking spaces required at the NSWC. Additional parking is also noted for the proposed new Engineering Management and Logistics Facility at a level 600 parking spaces. Thus, the Plan suggests graphically an overall parking component of approximately 1550 to 1600 spaces.



Legend

-  Proposed Shade Tree
-  Proposed Ornamental Tree
-  Proposed Gate Redesign
-  Proposed Pedestrian Pathway
-  Proposed Development Parcel
-  Programmed Building Area
-  Potential Building Site
-  Potential Parking Site
-  Proposed Road
-  Vegetation
-  Proposed Vegetative Screening

REVISED MASTER PLAN SITE DEVELOPMENT

The submitted TMP information does not specify any additional measures to achieve compliance with the Commission's parking ratio goals beyond those specified above. In the context of transportation management in the revised Plan, Montgomery County provides round-trip Ride-On bus service to the NSWC site. This service (Route 32: Bethesda-Cabin John) originates at the Bethesda Metro Station. The bus leaves every 30 minutes and the trip takes approximately 22 minutes. According to survey results for FY 2001, ridership numbers revealed minimal use of the system, with an average 14 boardings per day. According to the Montgomery County Public Works and Transportation Department, the capacity for the Ride-On service is 240 boardings per day.

Another method of managed transportation is the Carderock/Navy Yard Shuttle that travels between the Washington Navy Yard and the NSWC. The Navy finds it is often necessary for personnel to conduct business between the two locations. To accommodate this need, the Navy Yard Shuttle, a mid-sized, privately operated bus that offers round-trip service directly between Carderock and the Navy Yard, departs every two hours beginning at 7:30 AM and ending at 5:00 PM. Travel time between the two sites is approximately 45 minutes.

PREVIOUS COMMISSION ACTION

The previous Master Plan for the NSWC, Carderock Division, was approved by the Commission on January 4, 1990, as shown on NCPC Map File No. 3108.10(05.12)-30305.

SUBMITTED PRELIMINARY AND FINAL PROJECT PLANS

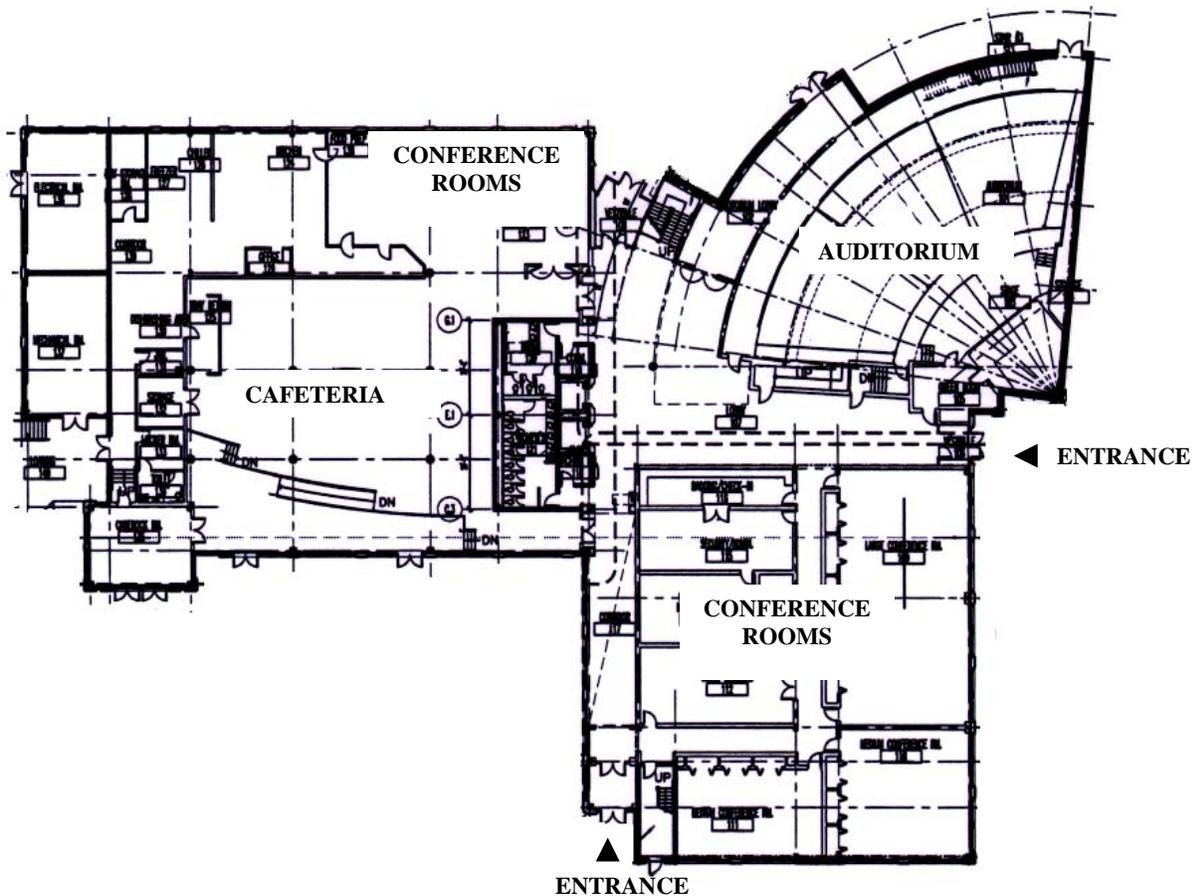
National Maritime Technology Information Center

As noted earlier in this report, the first phase for implementation of the Revised Master Plan would be the specific preliminary and final site and building plans for the National Maritime Technology Information Center located on the central west portion of the campus. This facility is designed with a floor area of approximately 50,000 square-feet and would have a 300-seat auditorium, video teleconferencing/ conference rooms, breakout rooms, cafeteria, and credit union. Currently, no similar security conference area or meeting space exists at Carderock and all video teleconferencing must take place offsite, involving extensive travel time.

The National Maritime Technology Information Center (NMTIC) is located directly west and slightly north of buildings 1, 2, 3 and 4, the David Taylor Model Basin Complex, which is the long water channel structure, and its associated buildings to the immediate south extending east to west. The building design and development requires the demolition of existing building 103 and its associated parking areas. Building 103 is a 1943 Quonset hut structure with modest minor modern additions and mature landscaping situated around it.

The submitted design for the NMTIC building is a contemporary evocation of the Art Deco style of the Basin Complex buildings, and would use light limestone colored precast concrete panels as the main feature of the exterior building skin. A silver-colored storefront aluminum window system would also be featured with clear energy efficient glazing. The material and colors of the

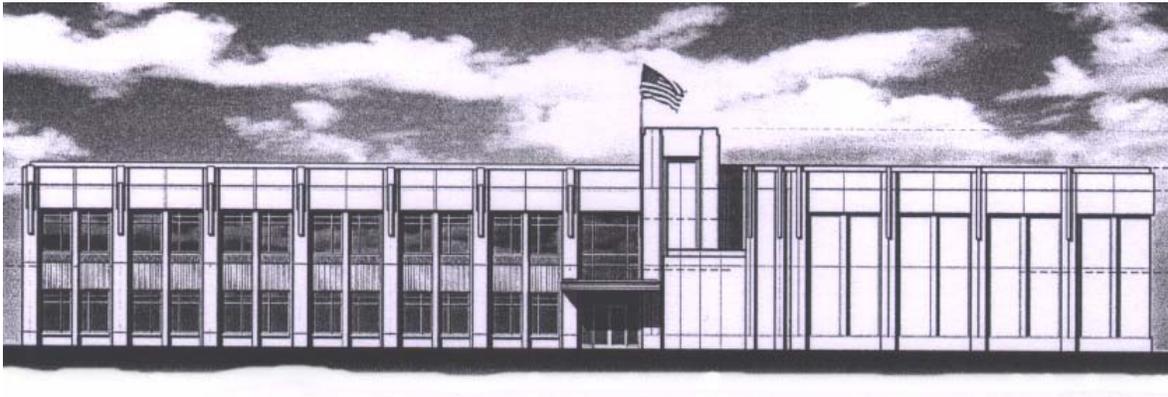
The building site layout arranges two building entries to facilitate access to the auditorium and for personnel use of the cafeteria and conference rooms. Fifty-six new parking spaces are proposed situated across Forestall Road just north of Witek Road. All parking adheres to force protection setback requirements and recovers about eight lost parking spaces due to demolition. This aspect of the submitted project adheres to the NCPC Comprehensive Plan parking ratio of one space per two employees.



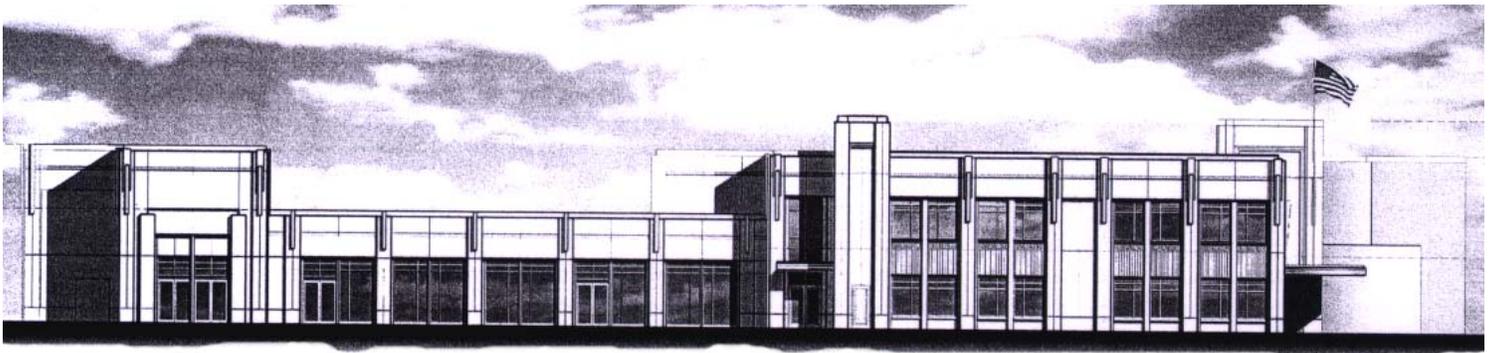
1 FIRST FLOOR PLAN
1/8" = 1'-0"



**NATIONAL MARITIME TECHNOLOGY INFORMATION CENTER
MAIN FLOOR PLAN**



NMTIC MAIN ENTRANCE EAST ELEVATION



NMTIC SOUTH ENTRANCE ELEVATION AS SEEN FROM PARKING AREA

DEVELOPMENT PROGRAM

Applicant: U. S. Navy
Architect: BBGM, Architects, Washington, DC
Barclay White Coakley, Construction

Cost: Approximately \$10.0 million, FY2001-2005

Schedule: Design Completion September 2003
Construction Start Date January 2004

URBAN DESIGN AND SECURITY PLAN

The submitted plan has undergone security review and analysis by DoD and U.S. Navy personnel to meet the objectives of the Department of the Navy for force protection measures. Setbacks of proposed building locations have been identified and implemented in the master plan and control points and/or inspections points for both pedestrian and vehicle traffic have been conceptually established.

One goal described in the Urban Design and Security Plan (UDSP) is to seamlessly incorporate building and perimeter security into the designed streetscapes of the metropolitan area where possible. The Carderock Revised Master Plan demonstrates this intent by providing setbacks at the street edge internal to the campus plan, the allowance for street furnishings, and the definition of a base perimeter that could incorporate streetlights, gates, and fences as design refinements as the Plan progresses into individual project undertakings.

COORDINATION

DON initiated consultation with NCPC staff concerning the Revised Master Plan in the fall of 2001. At that time, staff indicated additional project information should be developed as well as additional coordination with the State of Maryland concerning historic preservation issues regarding the Master Plan. The data is provided in the current submission.

The Navy, in its planning efforts to develop a Revised Master Plan, has coordinated its planning with the Maryland-National Capital Park and Planning Commission (M-NCPPC). As part of the comprehensive planning process for Montgomery County, subregion plans have been developed. The NSWC site is located within the Potomac Planning Area 4 of Montgomery County. The Potomac Planning Area, Area 4, is subdivided with the NSWC located within the Potomac community area. Montgomery County completed an updating the 1980 Master Plan for the Potomac Subregion. For the purpose of the Navy, the 2001 Draft Subregion Plan was referenced and available at the time of Navy planning. The major highlights of the Potomac Subregion are:

- Protection of the subregion's rich natural environment and unique ecosystems;
- Reliance on the land use framework established by earlier plans to strengthen and support the subregion's residential communities;
- Maintenance of a transportation network that provides needed links and alternatives, while preserving the subregion's semi-rural character;
- Establishment and expansion of community facilities to provide needed services and help create a sense of community;
- Use of historic preservation to contribute to the subregion's unique sense of community.

Additional input to coordination has come about by the efforts of NCPC staff in providing copies of the Revised Master Plan to M-NCPPC, in October 2003, with the request for comment. The County staff reviewed issues with NCPC staff and provided a formal review to the Montgomery County Planning Board on December 18, 2003. Issues regarding characteristics of the planned

changes that have been communicated to the Board and which have been approved as comments include:

- Explore strategies to mitigate traffic queues when higher threat conditions are declared. These could include satellite parking lots and shuttle service, flexible work schedules, transit partnerships and more security personnel to staff gates.
- Provide clear pedestrian and bicycle path systems throughout the site connecting all buildings.
- Designate stream valleys and wetlands within the proposed Natural Areas.
- Reforest stream buffers that are currently mowed.
- Discontinue current turf management practices, including mowing, in wetland areas.
- Increase stream valley and wetland buffers from the Maryland Department of the Environment stipulated 25 feet to 100 feet.
- Explore innovative ‘green roof’ technologies to reduce storm water runoff.
- Implement appropriate temporary and permanent erosion, sedimentation, and storm water controls with the goal of reducing storm water runoff by 20 percent as required by Maryland Stormwater Management Guidelines.

The transportation staff of M-NCPPC recommended to the Board the support and approval of the referral since the application meets the transportation-related requirements of the Adequate Public Facilities (APF) test. The staff did note that the Navy should provide complementary shuttle services to Metrorail during peak demand generated by conferences at the new NMTIC. Otherwise, the Board maintained the recommendation of the staff and approved the Revised Master Plan with the above noted conditions.

NCPC staff concurs in the findings of the County Planning Board and will monitor the further specific project development at the NSWC to maintain the planning goals specified above. Many of the objectives would, as a matter of course, be provided by the DON as objectives to be carried out as required by DoD facility design requirements. Nevertheless, as the larger and more complex facilities proposed by the Plan are carried forward to design development, NCPC will coordinate their further review with the goals identified by the Board.

EVALUATION

Staff recommends **approval** of the submitted Revised Master Plan with conditions, and the **approval** of preliminary and final site and building plans for the National Maritime Technology and Information Center. Staff believes that implementation of the Revised Master Plan will result in an improved installation design and provide for the required new construction of buildings, vehicle and pedestrian circulation, and site development.

However, while encouraged by the submitted Plan, staff also believes the commitment to the TMP objectives of the Commission’s Comprehensive Plan parking goals for federal facilities must be established given the increase in parking specified in the Plan. The Plan provides about 1600 spaces for 1700 employees. The current submission does not demonstrate compliance with

the Comprehensive Plan parking goals and only obliquely addresses excessive staff parking. To achieve the TMP objectives sought by NCPC, the staff recommends the Commission indicate to the Navy the need to secure the duties of an Employee Transportation Coordinator (ETC) to implement TMP objectives at the NSWC Carderock. The Navy is reminded that the traffic management requirements for NSWC Carderock should demonstrate adherence to the Commission specified ratio of 1 parking space per two employees. And while clearly the conference center parking (56 spaces for 18 staff and 300 visitors) meets the goal of the Commission, the overall Master Plan does not account for employee parking in compliance with Commission requirements.



EXISTING BUILDING 103 WHICH WILL BE DEMOLISHED

Finally, the accompanying traffic analysis of the Plan suggests additional measures for traffic volume congestion are necessary. The staff believes the revised gate entry projects must get high priority for implementation to address potential traffic back-up concerns that would affect the Clara Barton Parkway during rush-hour traffic volumes coinciding with a conference event.

CONFORMANCE

Master Plan

The NMTIC proposal is consistent with the newly prepared Revised Master Plan for the NSWC.

National Historic Preservation Act

A total of 38 structures, or 34 percent, of the site's 111 buildings contribute to the historical importance of the NSWC Carderock. An additional six structures (two flagstaffs, one model basin monument, an explosive test pond, a water tank, and a research pit) and the parade ground are all listed as historic sites. Several facilities used for naval research predate World War II. Many of these facilities provided key support in historic world events such as World War II. In 1985, the David Taylor Model Basin Complex, Buildings 1 through 4, was added to the National Register of Historical Places as a historic structure.



EXISTING DAVID TAYLOR MODEL BASIN COMPLEX – BLDG. 1, 2, & 3

In 1996, the Maryland Historical Trust determined that the NSWC qualified as a Historic District.

DON has completed its Section 106 responsibilities, determining that portions of the Revised Master Plan would have an adverse effect on the historic or architectural character of the NSWC. The Maryland Historical Trust concurred with this determination on March 6, 2003. In addition, DON consulted with the National Park Service to discuss potential visual effects on the Clara Barton Parkway and the Chesapeake and Ohio Canal National Historical Park. Based on the input received, the DON identified that the NMTIC would not adversely impact resources but that the Navy would have to adhere to conditions for project development to include:

- Submission of 35 percent completed drawings with photographs of the existing site conditions
- Removal of all temporary structures and equipment associated with construction of the NMTIC

The MD SHPO has concluded that the proposed construction will have no adverse effect on historic properties as long as the Navy provides the MD SHPO with drawings of the new construction and ensures that the design of the new construction reflects the Secretary of the Interior's Standards and is compatible with the architecture of the historic district. A project proposed in the Plan that would adversely effect the historic district is the yet to be designed Engineering Management and Logistics Facility and the associated demolition of buildings 8, 121, and 137 which are contributing resources to the NSWC historic district. Because of this circumstance, the Navy entered into a Memorandum of Agreement (MOA) with the Maryland State Historic Preservation Officer regarding the Construction of the Engineering Management and Logistics Facility and both parties signed an agreement in March 2003. (See attachment). With the signed MOA, the DON has completed its Section 106 process responsibilities in the context of the agreement that specifies additional conditions to be complied with by the Navy.

National Environmental Policy Act

The Navy submitted a completed EA for the first implementing phases of the Revised Master Plan. The EA, completed in September 2003, established a Finding of No Significant Impact by the Navy that was determined in October 2003.

The NSWC Carderock site itself is an environmentally sensitive landscape. Natural features such as topography, geology, steep slopes, soils, vegetation, wildlife, floodplains, surface water/streams, and wetlands are important natural constraints to the Plan, but none are of a significant adverse effect either directly or cumulatively.

Vegetative cover at the NSWC site consists primarily of large areas of planted turf grass. However, a significant natural forest stand with wetland characteristics is located east of Building 18. This natural area follows a natural drainage pattern that originates near the site's north edge and ends on the west side of Building 68. Mature hardwood stands cover approximately 31 acres, or 17 percent of the site's land area. The primary species of vegetation at

the site are yellow poplar, red oak, white oak, pin oak, willow oak, sweet gum, red maple, black cherry, and flowering dogwood. Important stands of hardwood vegetation on the northern and southern perimeters act as a buffer element between the NSWC site and adjacent land uses.

A 100-year floodplain is located along the northeast perimeter of the installation, occupying 6 acres or approximately 3 percent of the site's land area. The floodplain is associated with an on site stream to the east of the site that empties into the Potomac River. No development is proposed for the area in the Revised Master Plan.

The NSWC operational facilities can potentially create safety hazards to personnel and property. The Navy regulates the use and type of facilities located near explosives and the planning implemented minimizes any aspect of damage to property. Use areas called the Explosive Safety Quantity Distance/Electronic Magnetic Radiation Arcs (ESQD arcs) establish a safety perimeter around the Explosive Charging Loading House (Building 122) and Gate 3. Occupied buildings are prohibited within these safety arcs, with the exception of facilities with essential personnel working on ordnance-related activities. Electronic Magnetic Radiation (EMR) arcs similarly exist at the NSWC to identify electromagnetic hazards that occur when transmitting equipment produces an electronic field sufficient to trigger explosive devices, ignite fuels, or cause harm to personnel. At the NSWC Carderock, an EMR arc is specified and noticed to all personnel relating to the Magnetic Silencing Test Building (Building 81).

During all phases of the above activities no unauthorized persons are present, nor can any such persons achieve access to those portions of the NSWC areas that exhibit these special conditions.

Comprehensive Plan

The proposal is consistent with the Comprehensive Plan for the National Capital. The Federal Facilities Element designates NSWC for Special Service, Training and Support Facilities.

Federal Capital Improvements Program

The National Maritime Technology Information Center is not included in the Federal Capital Improvements Program, Fiscal Years 2003-2008 adopted by the Commission on July 11, 2002. The 2004-2009 FCIP was adopted September 4, 2003 and there were no projects for Carderock submitted in that program. The Revised Master Plan that has been completed should generate submission of individual project data for future FCIP planning purposes. The proposed 2005-2010 FCIP by NCPC, does include the Engineering Management & Logistics Facility, for FY '09 at \$13.5 million as an estimated cost in that fiscal year program.