

STAFF RECOMMENDATION

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NCPC File Nos. MP02/6482/6483



NATIONAL INSTITUTES OF HEALTH
MASTER PLAN UPDATE, COMMERCIAL VEHICLE INSPECTION FACILITY, AND
GATEWAY CENTER PROJECT
Bethesda, Montgomery County, Maryland

Submitted by the Department of Health and Human Services

December 22, 2004

Abstract

The National Institutes of Health (NIH) requests approval of a submitted updated master plan for the NIH Bethesda Main Campus located in Bethesda, Maryland. The revised master plan discusses the use of approximately 4.6 million gross square feet of new occupiable federal building space with some limited site development modifications. The employment level would increase to a projected maximum of approximately 22,000 personnel that would then be maintained as the ceiling limit for the Bethesda facility. The submission also includes the preliminary and final site and building plans for implementation of the new development identified in the master plan for the Commercial Vehicle Inspection facility, and the new visitor center and screening building, known as the Gateway Center Project.

Commission Action Requested by Applicant

Approval of revised master plan, and approval of 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:

Approves the 2003 Master Plan Update for the National Institutes of Health, as specified in the report, *Draft Master Plan 2003 Update*, dated September 2004, but requests revision of the Plan's identified employee parking ratio to conform to the Commission adopted 2004 Comprehensive Plan, no later than one year after this approval, and submittal to the Commission of a Forest Conservation Plan that will include all of the items the Maryland National Capital Park and Planning Commission staff asked to be addressed, as soon as possible.

Commends NIH on preparing a comprehensive master plan update.

Recommends that NIH implement telecommuting objectives at the Bethesda Campus which could assist to meet the adopted employee parking ratio during a substantial portion of the federal work week. The specific strategies to be achieved to address the newly adopted parking ratio should

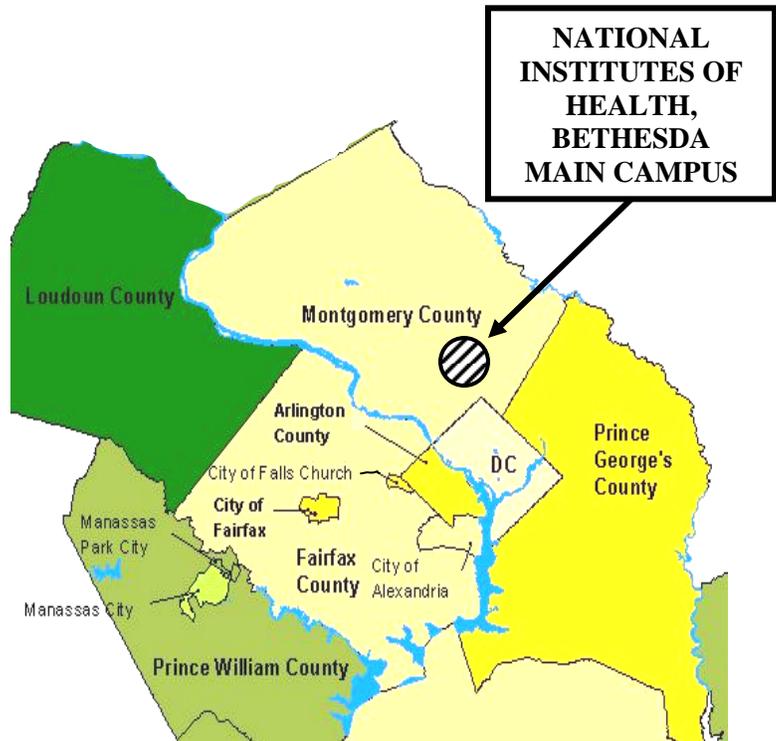
be presented in a submission of the next preliminary plans for any new construction evolving from the 2003 Master Plan Update, and should be developed and provided as a separate addendum to the master plan and fully documented regarding all analysis and conclusions.

Approves the preliminary and final site and building plans for the Commercial Vehicle Inspection Facility and the Gateway Center Project, as shown on NCPC Map File No. 3101.20(38.00)-41525 and NCPC Map File No. 3101.20(38.00)-41524, respectively, with the strong recommendation that the Commercial Vehicle Inspection Facility perimeter street-side planting be developed with trees of no less than four-inch to six-inch caliper diameter, and that the 12 Scholartrees be replaced with American Linden or similar species.

* * *

PROJECT DESCRIPTION

The National Institutes of Health has submitted a revised master plan called *Master Plan 2003 Update* on the NIH Main Bethesda Campus in Montgomery County, Maryland, for Commission review. The submission also includes the preliminary and final site and building plans for the campus improvements identified in the master plan that include a new commercial vehicle security screening facility, located at the east side of the campus, and a new visitor check-in and screening facility with monitored parking at the southeast side of the NIH site.



REGIONAL LOCATION OF THE NATIONAL INSTITUTES OF HEALTH

The NIH Bethesda campus includes over 75 buildings with a total occupiable gross floor area of nearly 7.4 million gross square feet exclusive of parking. The Office of the Director of NIH and headquarters administration is located on the campus along with the administrative staff of 27 individual and independent research Institutes and Centers, (ICs), such as the National Cancer Institute, the National Heart, Lung, and Blood Institute, and others that comprise NIH. All but one of the ICs maintains research facilities on the campus. About one-fourth or slightly more of the campus employees are involved in clinical and basic biomedical research. Most of the remaining facilities and personnel on the campus provide very specialized support for the research functions. Examples include training researchers and monitoring laboratory safety; handling and treatment of biological, chemical, and radioactive materials; laboratory animal care through an extensive veterinary program; manufacturing and maintenance of specialized research equipment; and computer services.

Major elements of the updated master plan include:

- Stabilization of nearly half a million gross square feet of space in the existing Magnusen Clinical Center Complex to prepare it for adaptive reuse.
- Proposed planning and development of up to 12 new buildings for intramural research. The new buildings would add about 2.17 million gross square feet of laboratory space.
- A continuation of the upgrading and modernization program for support utilities and infrastructure, particularly the Central Heating and Refrigeration Plant, campus steam, chilled water, and electric power distribution systems.
- Replacement of housing and care facilities for animals used in research with state-of-the-art facilities that satisfy modern design, accreditation, and program requirements.
- Consolidation of surface parking into multiple-level and underground parking structures.
- Development of a Loop Road that follows existing campus streets to improve campus vehicle circulation and emphasize pedestrian and bicycle use in the central core area of the campus. This includes:
 - Addition of Multi-Level Parking D (MLP-D) under the Central Mall
 - Extension of North Drive to the Loop Road
 - Removal of underground service level in South Quad, thus maximizing parking space at MLP-C
 - Improvement of the Loop Road, specifically north of the CRC and at the rotary on Center Drive
- Use of Building M for research support service
- Revision of East Quad to have four buildings instead of five, one of which will serve as Research Support Service Building (J/K)
- Removal of Building E and retention of Building 21
- Establishment of Building R on the southeast corner of campus, requiring demolition of MLP-7
- Development of MLP-E south of South Quad (above/below grade) to account both for MLP-7 loss and campus growth
- Addition of perimeter security fence and controlled access gates (already considered by NCPC and now formally included in the revised Plan)
- Addition of Gateway Center for visitors at Medical Center Metro Station area
- Addition of Commercial Vehicle Inspection Facility
- Conversion of West Drive entrance at Cedar Lane to a Clinical Center patient and visitor only entrance
- Management of stormwater through a site Institutional Stormwater Management Plan that will meet State of Maryland standards throughout the campus
- Planning of expanded child care facilities for employees, small scale retail and service activities, and other employee amenities
- Enhancement of a natural area or buffer zone around the periphery of the campus through removal of surface parking and increased landscaping. The zone would buffer residential neighborhoods surrounding the campus from NIH facilities and activities.

Site

The NIH Bethesda campus is a 310-acre parcel adjacent to the Bethesda Central Business District, in Montgomery County, Maryland with buildings and uses arranged in a wooded setting. The

principal boundaries of the site are Rockville Pike (Wisconsin Avenue) on the east, West Cedar Lane on the north, Old Georgetown Road on the west, and the Edgewood/Glenwood neighborhood as well as the Battery Lane residential district on the south.

The initial appearance of the NIH campus from the edge of the site is of buildings placed in a rolling, wooded landscape. The site character is created by influential topographic changes (a drop of over 150 feet across the site), and by the existence of mature trees and tree groupings around the perimeter of the site. There is a strong landscaped buffer at the perimeter of the campus, which is being restored, and a more intensely developed core at the center of the land area.

The largest land use on the site is undeveloped open space. Landscaped, wooded, and open areas account for approximately 181 acres or 58% of the campus. The largest undeveloped open areas occur at the perimeter of the site in four primary locations: the northwest corner of the campus; along Rockville Pike between Wilson and Center Drives; the southeast corner of the campus near the Library of Medicine (Building 38); and the area southwest of the Animal Facility Building (14/28 complex). The perimeter buffer zone of the campus is generally a constant width of approximately 250 feet along the property perimeter.

The second largest category of land use on the site is circulation and parking, with approximately 85 acres (28%) being used for roads and surface or structured parking areas. The development of multi-level parking structures has reduced the amount of surface parking that would otherwise been present with traffic and parking management efforts that have been undertaken beginning in 1993. Also significant is the amount of space dedicated to circulation alone, with 54 acres (18%) of the site used for roadways, walks, and service areas.

Built areas on the Bethesda site make up the final 44 acres (14%) of the campus. There are seven major functional building uses on the NIH Bethesda Campus: Clinical Center Complex/Patient Care; Research; Administrative/Special Function; Service/Support Utilities; Animal Services; and Residential.

Background

At its February 1, 1996 meeting, the Commission approved the Land Use, Circulation, Site Development, and Landscape elements of the 1995 NIH Master Plan as shown on NCPC Map File No. 3201.10(05.12)-40188, and established a maximum employment level of 18,000 persons, with the understanding that:

- The location and height of the proposed Building E will require further study closer to the time of development, in order to protect the viewshed between Building 1 and the Naval Medical Center tower.
- NIH will continue implementing its successful Transportation Management Plan and seek additional methods to reduce the employee parking ratio below 0.45, reevaluating the parking program at least every five years, and paralleling the construction of parking with actual employment levels.
- The calculation of employee parking ratios will reflect the reasonably expected daytime demand level, factoring out weekend and night-shift employees and the average number of employees absent per day.

- Building heights will be governed by the full range of special height considerations suggested in the Master Plan, such as scenic relationships, historic building contexts, open space areas, transitional elements, and varied massing.

In October 1999 the Commission approved the Master Plan modification for the Northwest Quadrant of the NIH Bethesda campus located in Montgomery County, Maryland, as shown on Map File No. 3101.20(5.12)-40699, and strongly urged NIH:

- To provide the natural resources and forest inventory information that the Montgomery Planning Board has requested as soon as feasibly possible.
- To initiate the Section 106 Historic Preservation Review process with the Maryland State Historic Preservation Office (MD SHPO) for the new Guest House when detailed building design and siting information is available.

In the ensuing years since the above master plan approval, many projects identified in the plan or its 1999 Northwest Quadrant revision have been reviewed and acted upon by the Commission. These include:

- Construction of Building 40, Vaccine Research Center Phase I (VRC)
- Construction of Building 50, Louis Stokes Research Building
- Building 63, North Electric Power Substation (PEPCO Facility)
- Building 64, East Child Care
- Building 11, Power Plant – Chiller Plant Expansion, Phase II
- Building 11, Cogeneration (COGEN) Facility
- Building 51, Fire Station
- Addition to Building 10, Mark O. Hatfield Clinical Research Center (CRC)
- Building 62A, Children's Inn Expansion
- Building 35, Neuroscience Research Center (NRC) - Phase 1
- Building 65, Family Lodge
- Perimeter Security Fence and Guard Booths
- Research Building 33
- Multi-Level Parking Structure-9
- Multi-Level Parking Structure-10

All these projects except for the perimeter security fence were in compliance with the concepts and goals of the approved 1995 and 1999 plans. All the projects have been constructed or are in stages of construction.

Revised Master Plan Proposal

Planning Concept

The updated master plan, called the 2003 update, is an extended step in the NIH review of its master plan on an approximate five year cycle, and follows the principles and goals established in the 1995 Master Plan. The 2003 update takes into account both implemented and planned projects from the 1995 Master Plan, while also responding to changing NIH requirements and development, and integrating federal mandates into the plan.

The functional updates for the plan include the primary concept for the Clinical Center Complex at the center of the campus, flanked on the southeast and west by research functions. There is a strong relationship between the hospital and clinical research functions of the Clinical Center Complex (Building 10) and the activities and personnel of surrounding research buildings. Administrative and office uses also have a functional relationship to Building 10, but will be clustered on the more “public” area of the development plan.

With the exception of the Natcher Building (Building 45) and Building 16 (Stone House), residential and special function uses will continue to occupy the north end of the campus with their unique activities and smaller scaled structures. Utility service activities will remain in their current location for efficient central utility distribution, and support/shops facilities will be relocated to the proposed Building J/K, Research Service Building.

In regard to spatial organization, at the perimeter of the campus the Plan proposes to retain and enhance the natural character, which provides much of the exterior image for NIH. At the boundaries of the site the buffer zone will be expanded on the north and south and enhanced as landscaped open space. The master plan shows no new structures to be placed within this buffer zone, with the exception of the Commercial Vehicle Inspection Facility (CVIF) and the Gateway Center for visitors. Surface parking will be removed from the buffer zone as achieved by implemented phasing of separate projects. The Gateway Center parking is underground within the buffer area. Between the perimeter buffer and the campus core will be a zone of natural landscape character with buildings placed in the landscape, responding to topography and natural features. As special features of the perimeter open space system, the four significant corners of the Bethesda campus will retain their existing character. These are the “woodland” setting of the northwest corner, the “stream” character of the northeast corner, the “lawn and pond” image of the southeast corner, and the “park” setting and activity of the southwest corner.

The interior of the updated plan maintains the existing campus proposal of a focal mall supported by a series of interconnected and well-defined quadrangle spaces as the basic structure of the campus. The system of quads creates visual and physical connections among all sectors of the campus, thus promoting pedestrian use and scale. The primary focal space is the Central Mall, which becomes the connecting element among the Clinical Center Complex, the East Research Quad, and West Research Quad. The Central Mall is also an important component of the north-south pedestrian connection. Secondary spaces radiate from this central space toward all other building groups on campus. There is also an important connection between the Central Mall and the Metro station along South Drive.

The existing building patterns on campus are essentially continued and enhanced by the updated Plan. Since buildings are placed to relate to each other through defined open spaces and spatial context, each open space quadrangle seeks to identify a building group. There are five existing building groups which will anchor the site: The general office Building 31 group on the northeast; the Historic Core (Buildings 1 through 5); the Clinical Center Complex (Building 10); the research Buildings 35, 37 and 40 group on the west; and the Lister Hill group (Buildings 38 and 38A), including the William H. Natcher Building (Building 45), on the southeast.

Two new research groups that replace the support services Building 12/13 complex and the existing Animal Facility in Buildings 14 and 28, on the south, redefine a portion of the core. At the perimeter of the campus is the residential group and several standalone structures such as Building

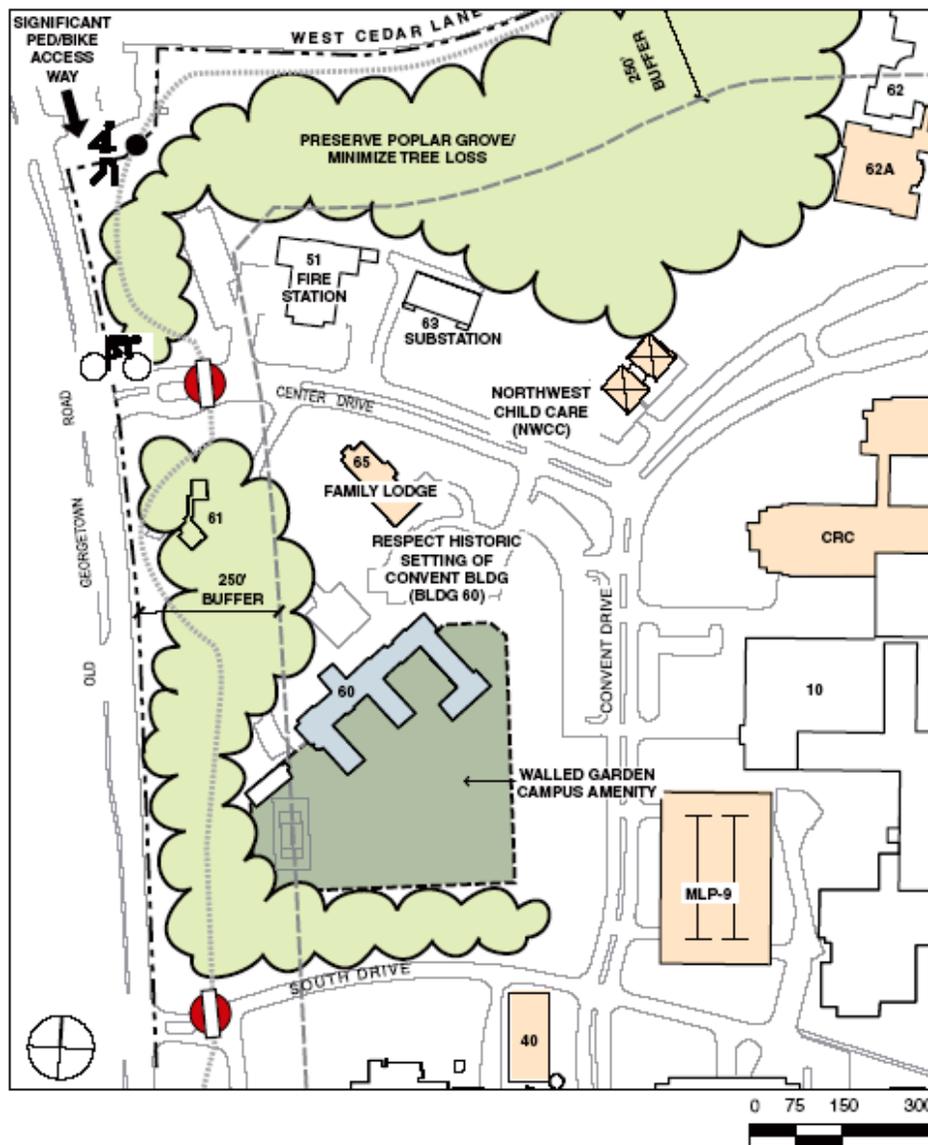
16 (the Stone House), Building 60 (the Mary Lasker Woodard Center), and Building 62 (the Children's Inn). All new development is organized to follow the orthogonal grid initially generated by the Historic Core (Buildings 1 through 5). Within this grid important focal points and axes are identified which would be respected in the location and design of individual buildings. These key focal points include the central administration Building 1, Building 16 (the Stone House), the termination of the restructured entry of Center Drive at Rockville Pike, and the north and south ends of the Central Mall.

Detailed elements of the Master Plan have established the campus into eleven sectors. Although each sector is primarily defined by a building group or an open space, there is some limited overlap between the sectors.

Convent Sector

The Convent Sector is a wooded area with only limited new construction proposed to preserve the historical setting of the Convent Building (Building 60 - also known as The Cloister). Its main features are the Poplar grove along West Cedar Lane, the Convent Building, which is now occupied by the Mary Woodard Lasker Center for Research and Education, and the recently completed Fire Station replacement (Building 51). The almost completed Family Lodge (Building 65) will allow the housing of adult out patients (and families of patients) undergoing treatment and clinical trials at the Clinical Center. To the west of the Fire Station, Parking lot 10K, which is currently partially within the Old Georgetown Road buffer zone, will be removed.

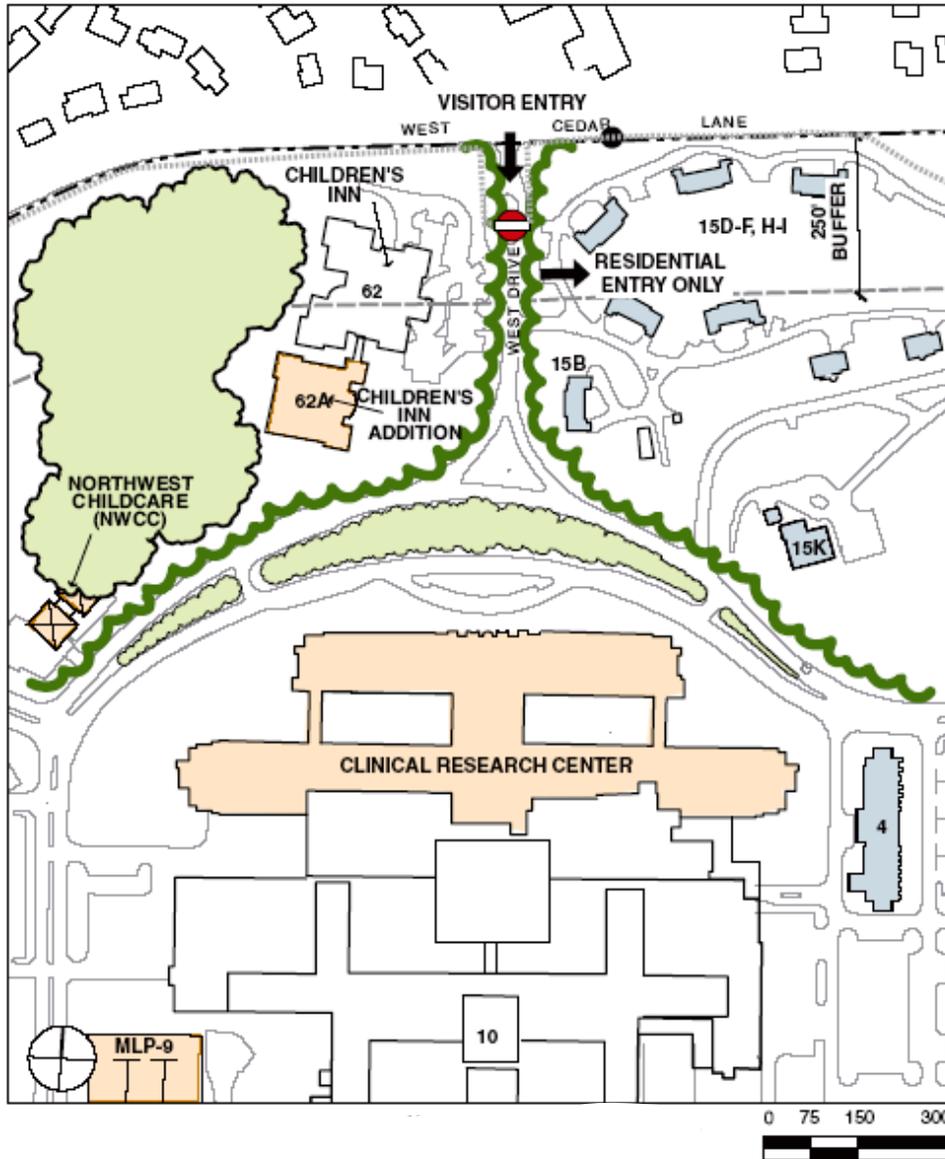
Since the Poplar grove is a significant site feature of large and mature trees at the north portion of the site, it is specified by the Plan that as little impact as possible is proposed for this area. The Convent Building has been recognized by NIH and the Maryland Historic Trust (MHT) as an historic property whose environs should be respected, thus no development has been proposed for the parcel it occupies. The walled garden behind the Convent Building should be better utilized as a campus amenity. The section of Center Drive between Old Georgetown Road and the inner campus loop is proposed as an employee only entry to the campus.



CONVENT SECTOR MASTER PLAN CONCEPT

Residential Sector

This sector includes the smaller residential structures at the north end of the campus between West Cedar Lane and the campus loop. It is proposed that the area remain lightly developed, respecting the West Cedar Lane buffer zone and the scale of the existing structures. Only renovation or maintenance activities are anticipated by the master plan. The West Drive entrance will allow exclusive access for Clinical Center patients and patient visitors.

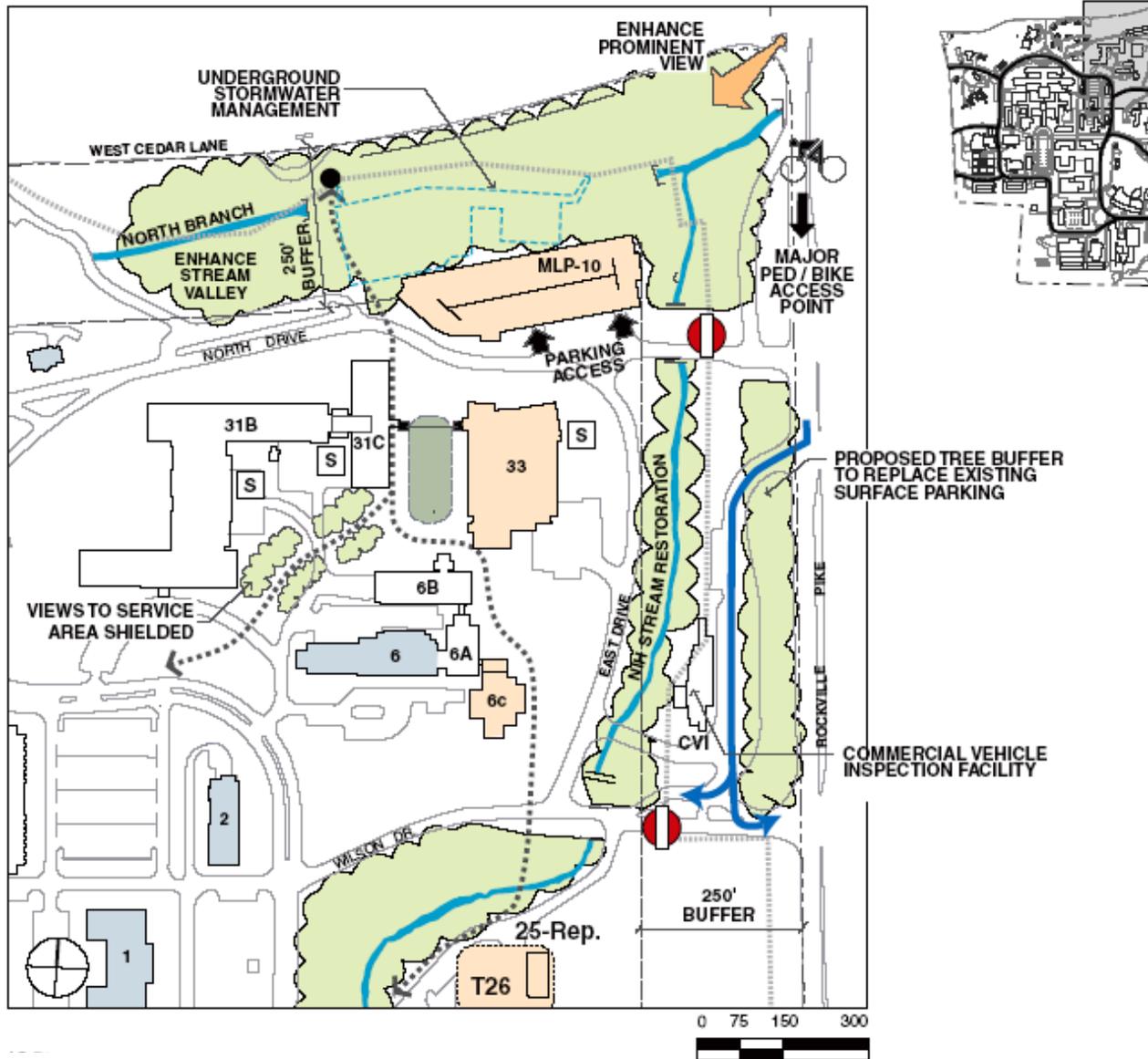


RESIDENTIAL SECTOR MASTER PLAN CONCEPT

Stream Sector

The stream sector includes the general office Building 31 complex, the Building 6 research complex, and the open area at the northeast corner of the site. The new research Building 33 is now under construction and Multi-Level Parking 10 (MLP-10) structure, with space for approximately 1,262 cars has been completed in August 2004. The new research building will form an entry court shared by Building 31C and Building 6B. The parking deck is located north of

Building 33 and south of the north buffer zone that features a berm and tree buffer to screen the structure. The remaining historic setting of Building 6 is slated to be protected if any future development is required. To connect the parking structure and new development to the rest of the campus, pedestrian walkways are proposed to the north and south of the Building 6 complex, with views into service areas shielded where possible. A new road (extension of North Drive) north of Building 31 connecting Building 33 and MLP 10 to the campus loop has been constructed, and a NIH Shuttle stop is planned at the building entry court to accommodate pedestrians going to the research Building 33 as well as those coming into campus from MLP-10.

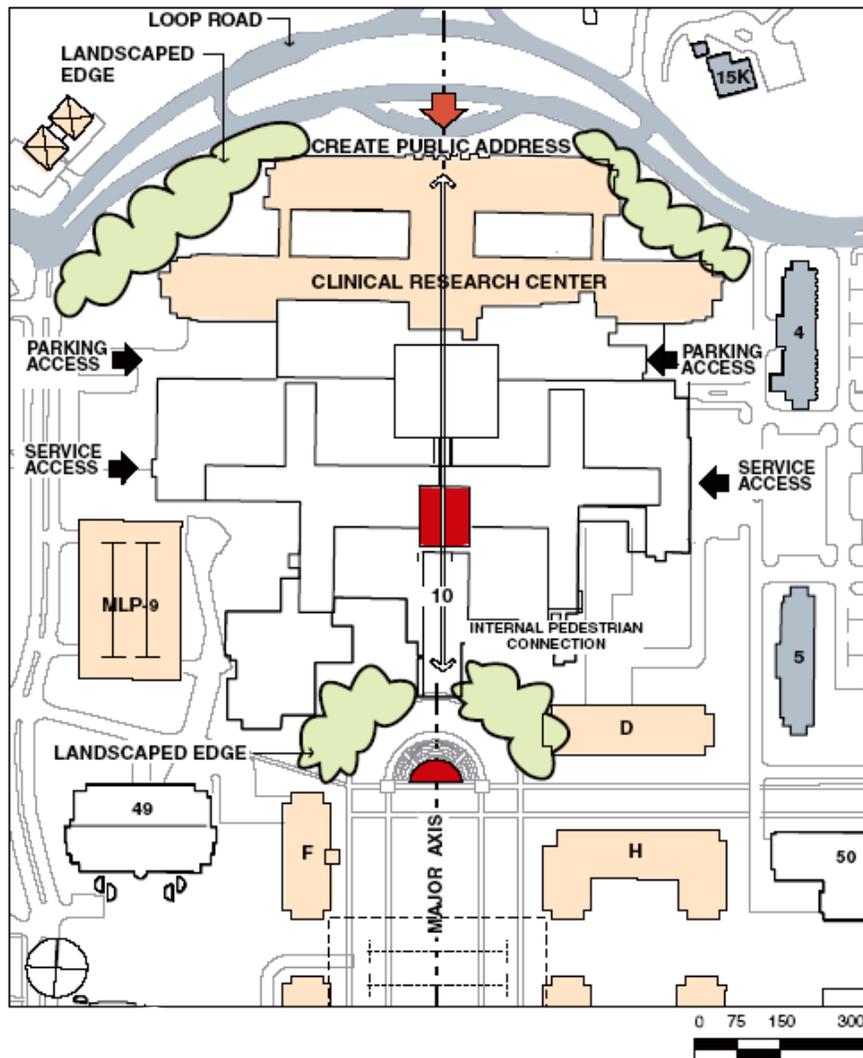


STREAM SECTOR MASTER PLAN CONCEPT

Surface parking located within the buffer zones along West Cedar Lane and Rockville Pike will be removed in the plan. The areas reclaimed will be landscaped to enhance the existing stream-side areas as a campus open space amenity. As part of the site restoration, the north stream has been restored to a stream bank environment and a stormwater management system has been created between West Cedar Lane and multi-level parking structure, MLP-10. Additionally, the NIH Stream Restoration project will re-establish 3.54 acres or 2,100 linear feet of the NIH stream channel. Restoration plans consist of extensive stream bank restoration and erosion control measures to reduce flow velocities. Wilson Drive has been designated as an employee entry and also as commercial vehicle entry after passing through inspection.

Clinical Center Sector

The retention and renovation of Building 10 as the Clinical Center and construction of the Mark O. Hatfield Clinical Research Center (CRC) with approximately 1,050,000 gross square feet of



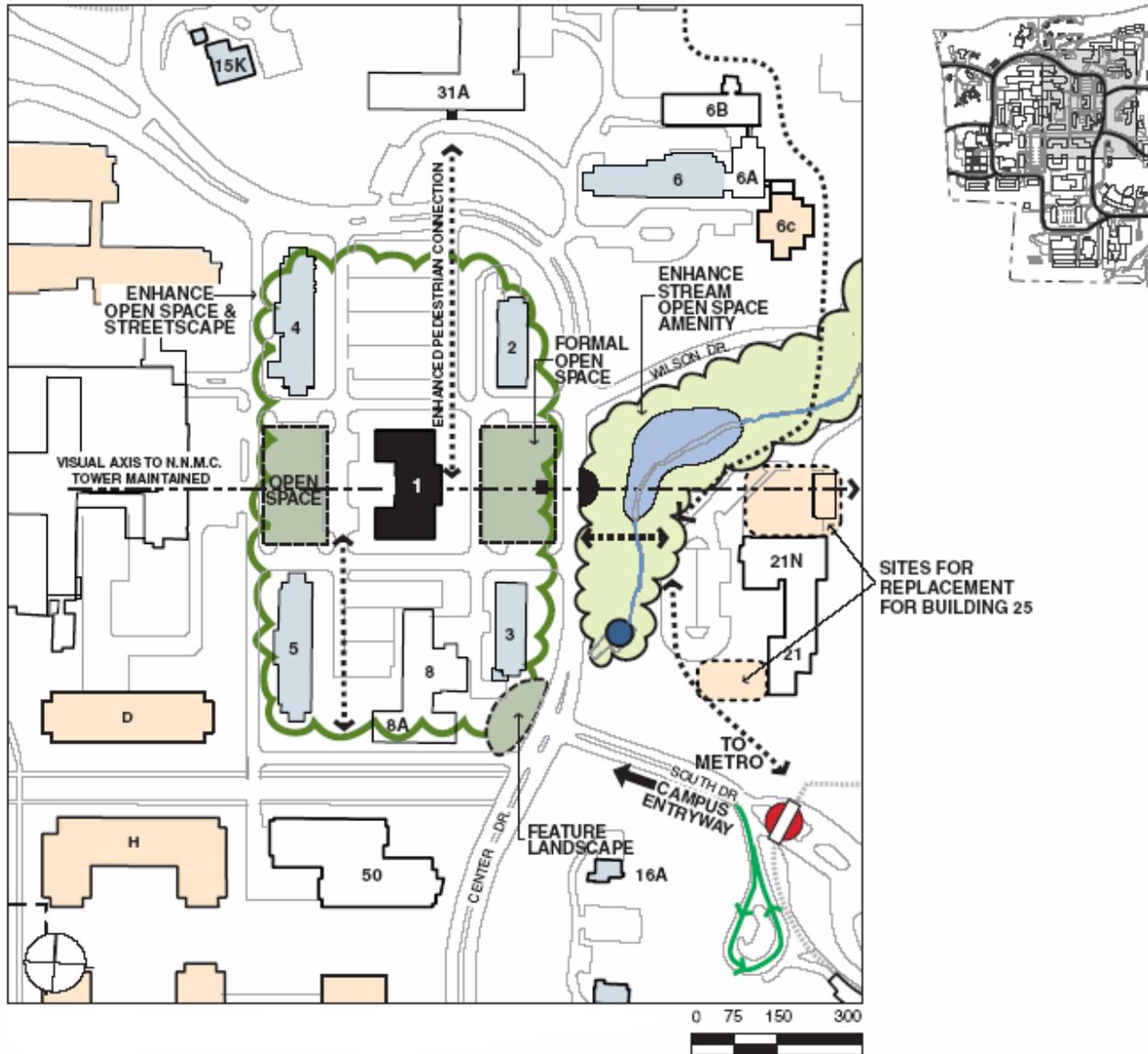
CLINICAL CENTER SECTOR MASTER PLAN CONCEPT

patient care space and related research space north of the existing facility is key to the NIH master plan. Within the sector there are two sites of new development, which are outside the footprint of the Building 10 complex. The site to the west of Building 10 and north of research Building 49 has been planned and developed as a multi-level parking structure (MLP-9) with space for approximately 940 cars, which has been approved by NCPC. The site east of Building 10 and west of research Building 5 is planned as research Building D. The open space strategy for the Clinical Center Sector is to terminate the Central Mall and create a landscaped edge around the facility, especially along the Center Drive side. In terms of massing, the tallest building elements would relate to the central axis of the mall, and there would be a transition in building heights toward the lower buildings of the Historic Core on the east, the residential buildings on the north, and the Convent Building on the west. Accessible internal pedestrian connections would be made through the Clinical Center Complex possibly connecting the Central Mall to the north area of the campus. Parking to accommodate approximately 1,550 spaces will continue to be provided in the nearby existing garages. Service access to the Clinical Center should be limited to the east and west sides of the facility as opposed to the more publicly oriented north and south sides.

Historic Core Sector

The Historic Core Sector is defined as the area of the early campus development (Buildings 1 through 5) and the existing radiation safety/waste handling Building 21 site to the east. The goals for this area are to enhance the historic setting of Buildings 1, 2, 3, 4 and 5, and to enhance the NIH Stream near Building 21. As part of the enhancement of the Historic Core, the master plan proposes that some of the surface parking in this area be removed when possible, including the removal of parking directly in front of Building 1. This will allow landscaped open spaces to surround and highlight Building 1, which is the actual and symbolic origination point of the Bethesda campus. These landscaped areas will also allow clear pedestrian movement from the campus core to periphery buildings such as the general office Building 31 complex. One of the most important “ceremonial” open spaces on the campus is the quad in front of Building 1, which is often used as a defining image for the NIH campus environment.

In the immediate future, Buildings 2 and 3 of the Historic Core will be converted from research use to administrative use, complementing Building 1 which houses the Office of the Director of NIH. The master plan proposes that Buildings 4 and 5, recently renovated, continue to be used as research buildings. Continued master plan analysis would evaluate the future potential conversion of these buildings to administrative use, allowing them to be returned to their original architectural condition. Any modifications to buildings within the Historic Core would conform to the Secretary of the Interior’s *Standards for Rehabilitation*. A direct pedestrian connection to the Metro station would be achieved for this area.

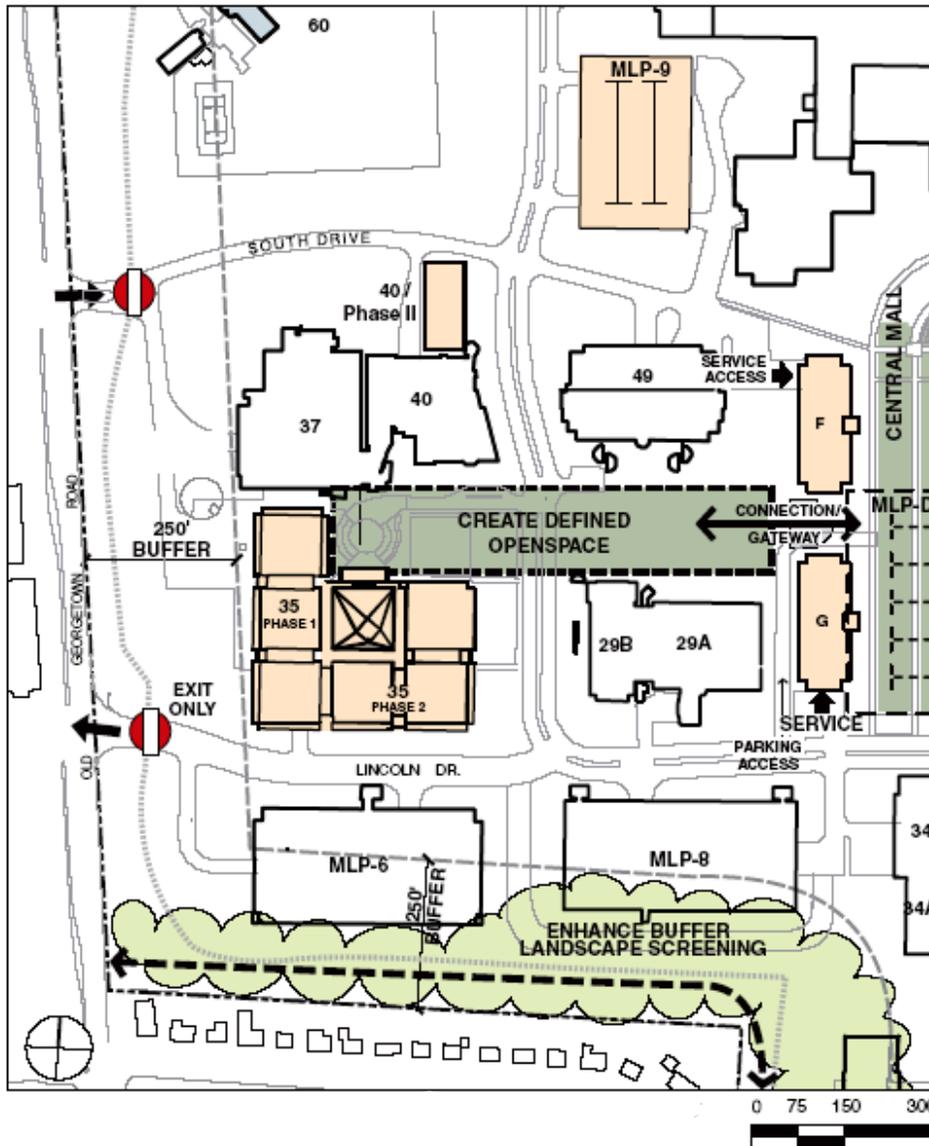


HISTORIC CORE SECTOR MASTER PLAN CONCEPT

West Quad Sector

The West Quad Sector is one of the significant existing building groups proposed to remain on campus. Research Buildings 37, 40, 49, 29A and 29B will be retained, while research Buildings 29, 30 and 36 are proposed to be demolished. Phase I of the Neuroscience Research Center (35/NRC) was constructed in spring 2004 and replaces former Building 35, which has been demolished. Phase II of the NRC will replace Building 36. New research buildings F and G are

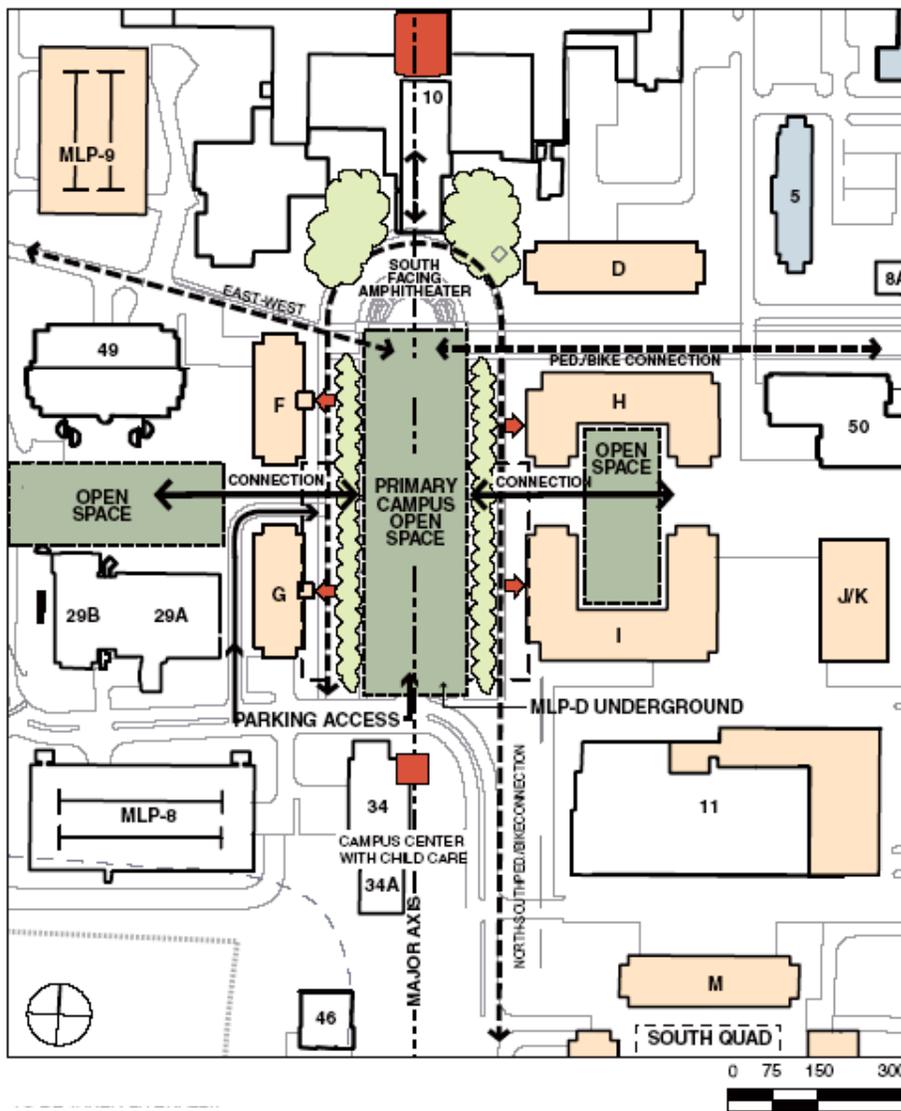
proposed for the east end of the quad to increase the amount of research space in the sector. They are located to reinforce the enclosure of the quad space and to create the western edge of the new Central Mall. Multi-level parking structures MLP 6 and MLP 8 are also retained in this sector. The open space goal of this sector is to better define and connect the open space between the NRC and Building 40 with the open space between Buildings 49 and 29A/B. This enhanced quad is then connected to the Central Mall through the gateway created by the demolition of Building 30 and the construction of the two new research buildings facing the mall.



WEST QUAD SECTOR MASTER PLAN CONCEPT

Central Mall Sector

The Central Mall would serve as the primary outdoor area and symbolic heart of the campus. It will be a space on campus for interaction and collegiality (a goal of the Master Plan) because of its central location and proximity to the Clinical Center Complex. The Master Plan envisions the Central Mall as an active space with a central open area for ceremonial gatherings or informal recreation, and edges strongly defined by alleys of trees, with pathways accommodating pedestrian and bicycle circulation, seating, and garden spaces. At the north end of the mall, the space is terminated by a south-facing amphitheater, which is set into the hillside and can be used for recreation, seminars, and other NIH programs and events.



CENTER MALL SECTOR MASTER PLAN CONCEPT

Functionally, the central Mall helps organize pedestrian movement through the center of campus, creating clearly defined north-south and east-west paths across grounds. Spatially, the Central Mall provides an open area, which allows the connection of the other campus spaces, such as the West Quad, to the central core. An underground parking structure, MLP-D, is planned at the south half of the Mall. This multilevel underground structure can accommodate 1,360 cars centrally located to campus for employee use.

Much of the Central Mall will eventually be defined by new development. New research Buildings H and I, located on the current site of support and computer services Building 12/13, will define the east edge of the mall, while new research Buildings F and G will define the west edge. A Campus Center housing consolidated employee activities, special functions and a Child Care Center is proposed for a renovated and converted Building 34/34A.

East Quad Sector

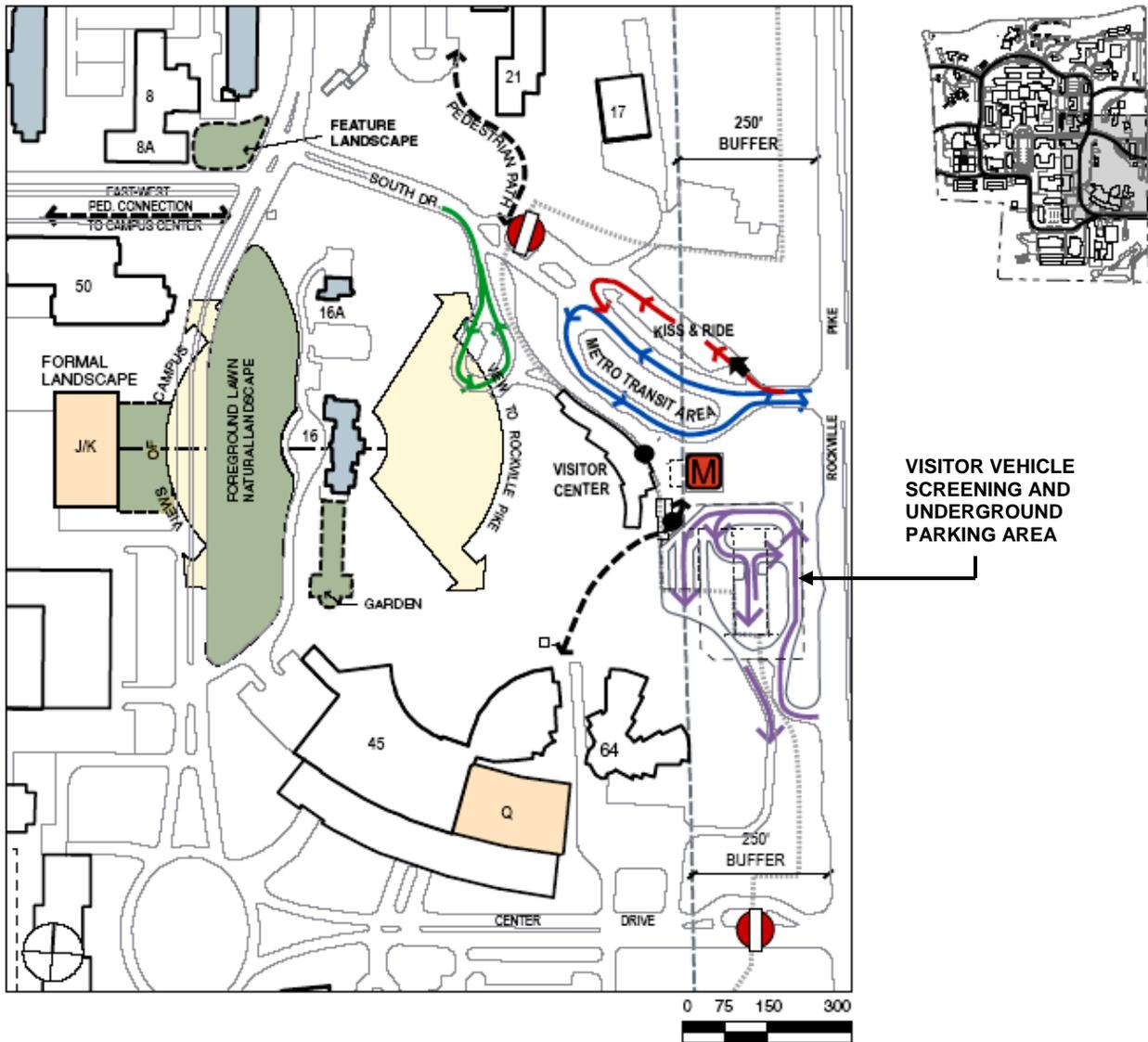
The East Quad Sector involves redevelopment of the existing support and computer services Building 12/13 site for more intense and higher scaled laboratory uses. Buildings H and I, which define the eastern edge of the mall, will also define the western edge of the East Quad. Building J/K and Building 50, (the latter already in place), defines the eastern edge of the East Quad. Building J/K, when built, will house research service functions and will have a service area contiguous to the Power Plant to be shielded from the East Quad open space by a dense landscape buffer and/ or walls. The eastern edge of this quad will also serve as frontage to the loop road.

On the east side of the Quad is a plaza and landscape Bosque as a foreground for the main building group. A plaza is being considered to respond to the central axis of the Stone House (Building 16). An internal pedestrian connection would also be provided through the buildings to facilitate circulation. Building massing should step down toward the smaller scaled buildings of the Historic Core.

The Power Plant expansion for NIH is anticipated in the sector. This expansion will also incorporate the consolidation of chiller capacity, which is currently housed in Building 34. Service courts would be provided around the north and south sides of the Power Plant for access to equipment and deliveries. A replacement fuel oil storage tank is proposed to be located in a below grade vault within the north service yard to provide a secure area for tank filling. All service areas should be screened by walls and landscaping, with special attention given to the areas facing Center Drive and the Central Mall.

the Metro station, with the purpose of screening visitors to the NIH grounds, The Gateway Center will be accompanied by an underground multi-level parking structure with space for approximately 350 visitor cars. An internal campus NIH Shuttle stop has been constructed contiguous to both the Metro stop and the Visitor Center to continue facilitating transportation for pedestrians, both employees and visitors.

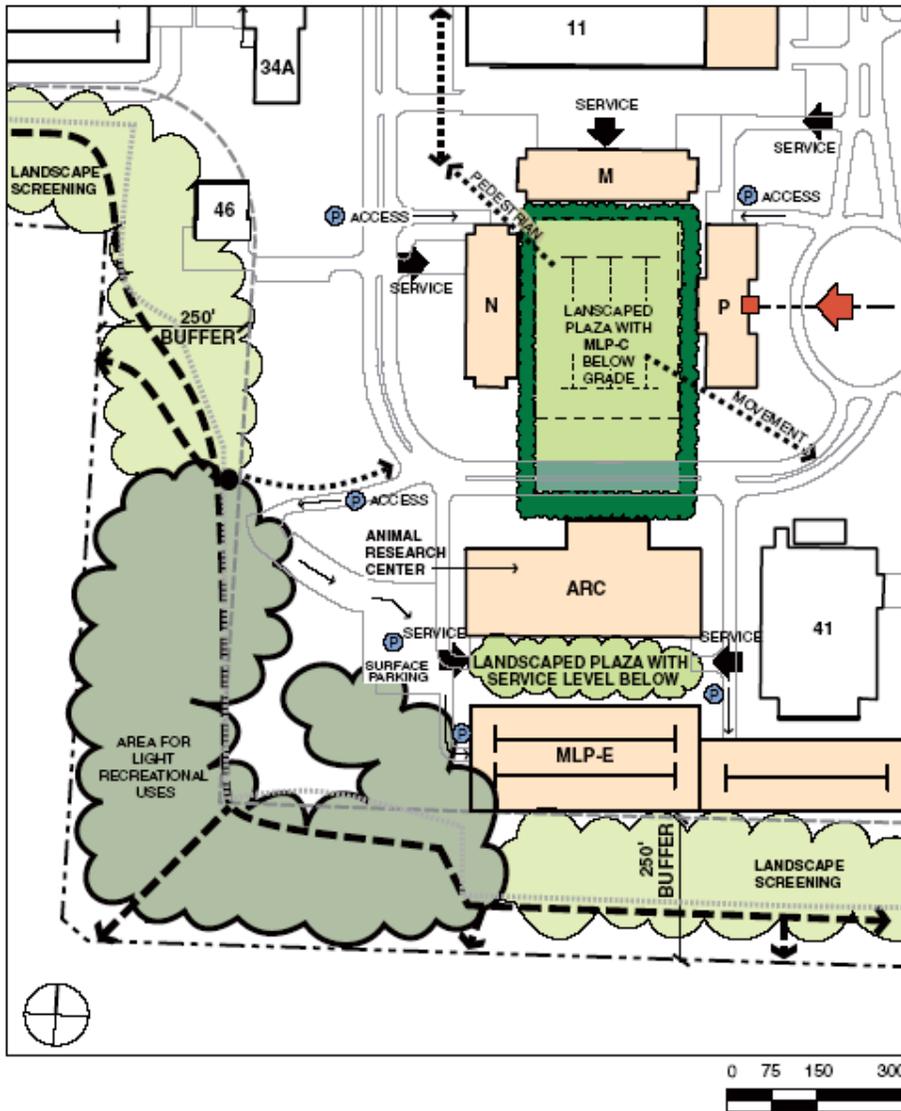
This sector also includes the East Child Care Center located along Center Drive and Rockville Pike. As part of the Gateway Center a new road to run from the visitors' vehicle inspection east of the childcare center to join Center Drive is planned. At the intersection of South Drive and the loop road a "T" intersection is proposed in place of the existing triangular island. In order to create a significant arrival feature, formal landscaping would be provided at the point where South Drive terminates at the loop road.



STONE HOUSE SECTOR MASTER PLAN CONCEPT

South Quad Sector

The South Quad Sector occupies the site of the existing animal facility (Building 14/28-18/32 complex) and the area surrounding surface parking lot 41. Because of its large footprint and one-level configuration, the existing Animal Facility makes inefficient use of the site. The area south of the Building 14/28 complex is also underutilized as a surface parking area. In the future planning, development proposed for this sector includes the replacement of the animal facility at the south end of the South Quad contiguous to research Building 41 with a new Animal Research Center (42/ARC) mid-rise structure.



SOUTH QUAD SECTOR MASTER PLAN CONCEPT

The South Quad complex is composed of four new buildings surrounding a central landscaped plaza with underground parking. The four buildings would be research Buildings M, N, P and 42/ARC (Animal Research Center). The underground multi-level parking facility (MLP-C) would accommodate approximately 1,024 cars in four levels. Building heights would step down toward the Edgewood/Glenwood neighborhood. Access to this new development will be provided by the completion of the loop road system through the south end of the campus. The roadway would be moved as far as possible from the west boundary of the site.

A new quad open space is developed as the area focal point on top of the proposed parking deck. The open space would allow pedestrian movement from the campus core to the South Quad buildings and to the Lister Hill (National Center/National Library of Medicine) Complex to the southeast. The plaza space would be landscaped to enhance views from within the surrounding buildings and would serve as an open space amenity for employees.

The ARC will have a service yard on its south side, located at the lower loop road elevation, and will be covered by a landscaped plaza that matches the elevation of the higher topography. As a result, service functions will be hidden under the natural topography line. MLP- E proposed South of the ARC, is a structure with parking decks that set back as they rise to respect neighborhood buffers and campus height limitation guidelines. The parking structure would accommodate approximately 1,116 vehicles. A campus shuttle stop is proposed at the southeast corner of the South Quad, conveniently accessible to MLP-E as well as to major pedestrian traffic in the South Quad, Natcher and Lister Hill area.

At the south and west perimeter of the site the buffer zone is maintained at 250 feet. Surface parking currently within the buffer is proposed to be removed as soon as possible and no new construction is planned within the buffer. The west PEPCO substation (Building 46) will remain, however. No active uses should be encouraged along the Edgewood/Glenwood neighborhood area community buffer.

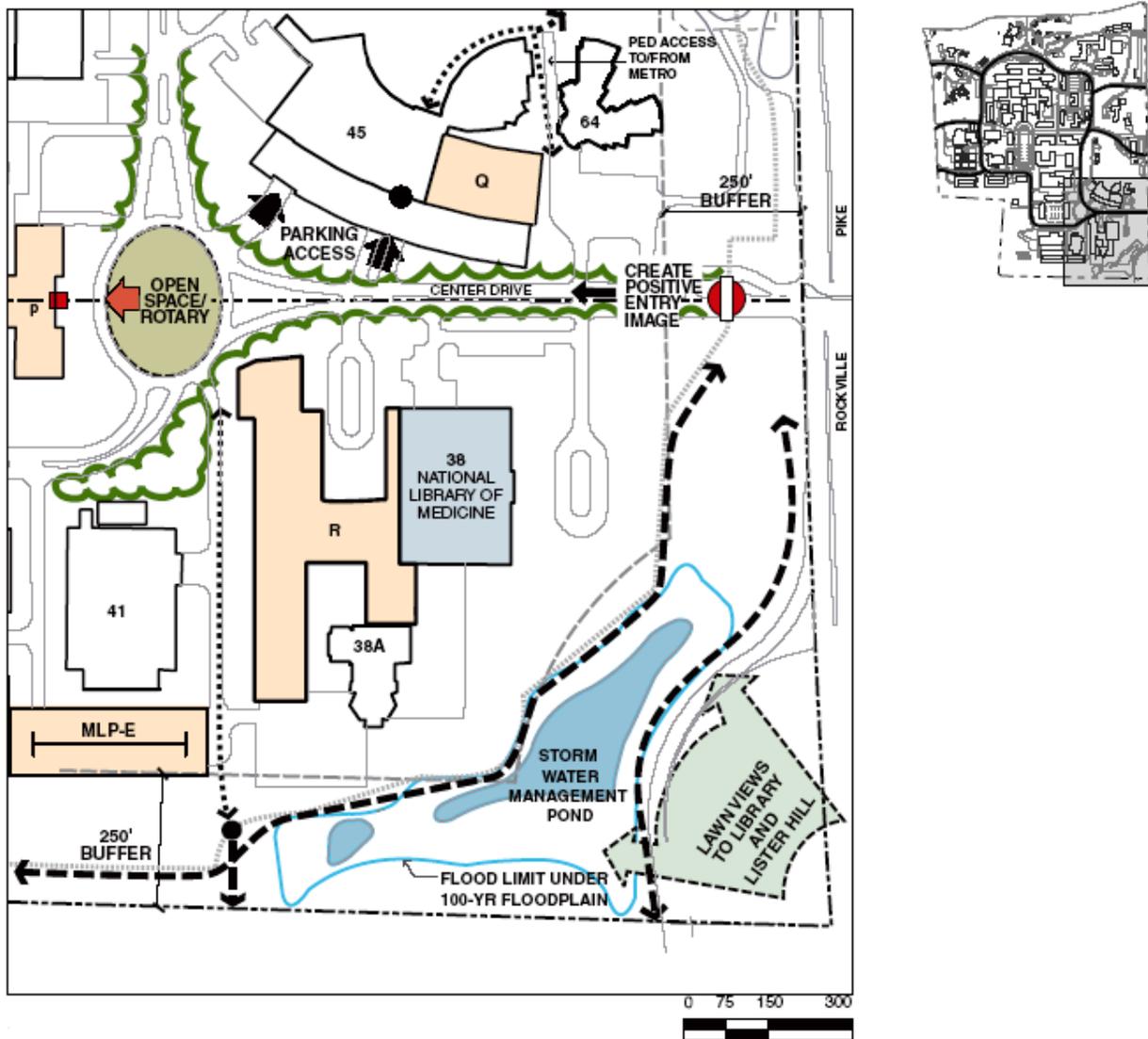
Library Entry Sector

This sector includes buildings at the southeast corner of the site, which define the major employee entry to the campus from Rockville Pike. The goals for the Master Plan for this area of the site are to efficiently accommodate the large volumes of traffic, which use the Center Drive entry, to create a positive entry image for the campus, and to integrate the existing and proposed buildings into the overall Master Plan structure.

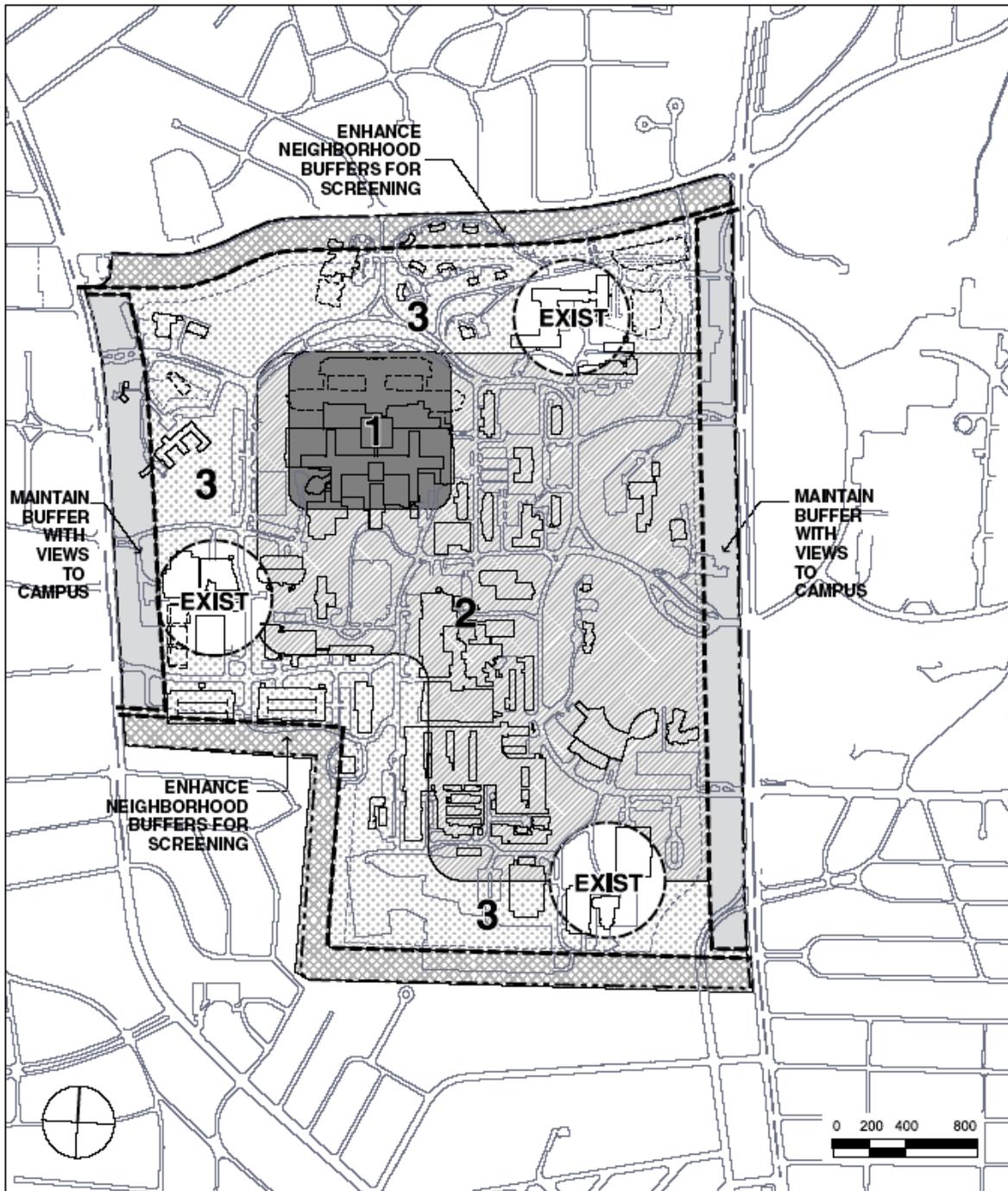
Development proposed for this sector includes the construction of a replacement building for the office component of the support and computer services Building 12/13 complex (Building Q). This proposed facility would complete the building mass of the William H. Natcher Building (Building 45) in response to the curve of Center Drive, and would be a compatible functional use for the existing facility. New research Building P is proposed as the axial termination of the Center Drive entry and forms the east edge of the South Quad open space. The architectural design and functional use of this building would be commensurate with its prime location. The addition to the National Library of Medicine (Building R), an administrative/special function use, is planned in the area in front of Building 38A (Lister Hill Building). MLP-7 will be demolished to give way for Building R, and its capacity will be absorbed by Phase I of MLP-E. The master plan proposes that alleys of trees be planted along both sides of Center Drive, creating a vista, which opens to a

landscaped focal space at the termination of the entry axis. The prominent lawn at the southeast corner of the site will include a retention pond, and would provide views to the National Library of Medicine and the Lister Hill Building. The Center Drive entry at Rockville Pike currently has the highest volume of entering and exiting traffic of any entry on campus. In the future, traffic projections indicate that the use of this intersection will increase with additional employees using this entry to travel north into the campus and south to the proposed MLP-C and MLP-E. The roadway is proposed to be upgraded to four lanes with a landscaped median. Additional turn lanes will be added at the intersection with Rockville Pike. Service and parking access points are to remain in their current locations, however not all will be accessible from both directions on Center Drive to simplify traffic movements.

A traffic circle or rotary is proposed for the intersection of Center Drive with the loop road. The configuration shown is a circulation concept, which would require detailed analysis and design before implementation.



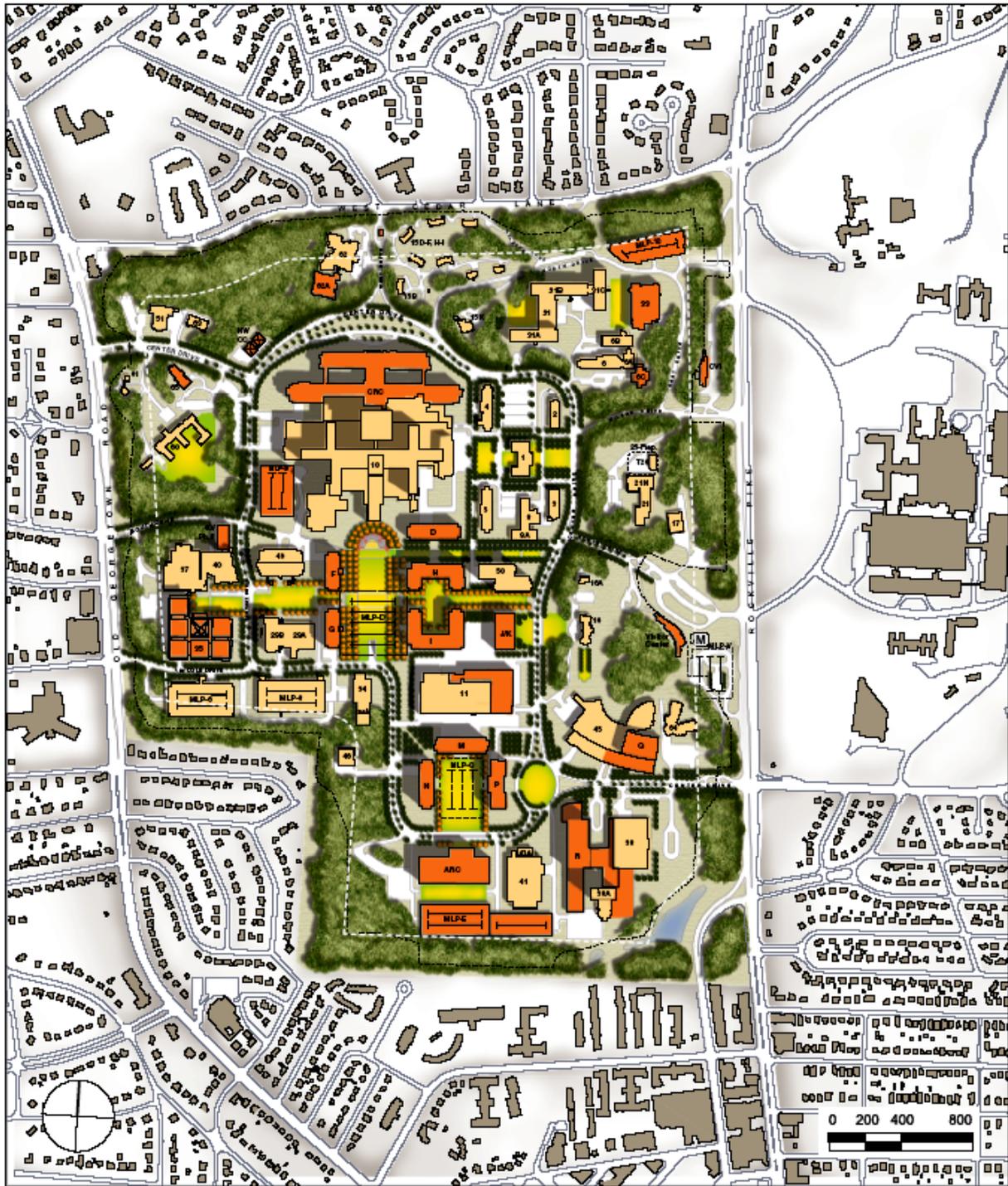
LIBRARY ENTRY SECTOR MASTER PLAN CONCEPT



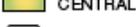
**NIH
Master Plan
2003 Update**
Bethesda Campus

- 1** HIGHEST DENSITY
- 2** MEDIUM DENSITY
- 3** LOWEST DENSITY
- SCREEN BUFFER
- OPEN SPACE BUFFER

**Planning Principle
Development Density Zones
& Community Buffers**



**NIH
Master Plan
2003 Update**
Bethesda Campus

-  EXISTING
-  PROPOSED
-  GREEN/OPEN SPACE / RECREATION
-  CENTRAL MALL/PRIMARY OPEN SPACE
-  METRO STATION
-  SECURITY FENCE
-  BUFFER LINE

**Illustrative
Master Plan**

Transportation and circulation issues are a primary topic of master plan revision and are driven by the program aspect of increased personnel in the planning range of the proposal. The vehicle circulation concept for the campus is a primary interior campus loop, which acts as a distributor for employees and as a way-finding tool for visitors. With the exception of South Drive at Rockville Pike and West Drive at Cedar Lane, which will remain open to the public (visitors and patients), all other entries will be designated as employee only entries. Moreover, commercial vehicles will enter onto the main campus through East Drive, after passing through an inspection point. The revised campus loop creates a system which provides an “address” for many of the major public-oriented functions on campus, especially on the more public oriented east side of the campus. There are also several secondary roads that connect to the primary system. In the updated plan, however, the internal portion of the campus circulation loop is a primarily non-vehicular precinct, where pedestrians will be accommodated on two major pathways across campus. This interior pedestrian system, along with the campus loop, will also be used for campus bicycle circulation.

Plan Employee Level

The 1995 Master Plan personnel level was set at 18,026 employees for the year 2015. The submitted master plan provides an ultimate capacity of 22,000 employees with no further increase in any future year. Any growth by NIH beyond that limit is envisioned to be established at either off-site leased space locations or a new consolidated location. The expected down-sizing of federal government agencies in the early 1990s did not materialize at the NIH. In contrast to many federal programs, congressional and administration support of NIH over almost a decade resulted in personnel growth that approximates projections by NIH in the 1995 Master Plan, but at a substantial accelerated pace. In 2000 the campus population had reached 17,681 and in 2003 the NIH population reached 17,511. The update effort provides a framework to accommodate the estimates for growth and change in campus population and facilities over the next 20 years, but actual development on campus will depend on future congressional and presidential policy decisions, as well as federal budgetary constraints. Also, vast changes in national health policy are expected to continue over the next decade, and NIH’s mission could be significantly affected as a result, which would alter the population anticipated.

Much of the thrust to potential employee level increases was uncovered by NIH in its updating effort for 2003. The most significant organizational feature of most of the institutes - for purposes of the master plan - is their division into intramural and extramural research functions. The intramural basic and clinical research programs distinguish the NIH as an institution from all other biomedical research efforts. The NIH intramural research program enjoys unique interdisciplinary character, flexibility of the course of research, and the freedom to pursue research without imposition of predetermined duration or scope. In the Clinical Center, patients are physically close to researchers, and the rapidity with which clinical trials of research findings can be applied is unique in biomedical research.

When analyzed for functions that should be located on the Bethesda campus, nearly all 27 ICs that either conduct or support scientific research expressed a preference that most of their intramural research programs remain on the Bethesda campus or be relocated to the campus from currently leased locations. Extramural research grant administration personnel, most of whom are now in locally-leased space, were found to be generally comfortable with their off campus situation, but complaints of intellectual isolation, lack of opportunities for innovative scientific interrelationships

and collaboration, and the frustrations of going to the campus for meetings, seminars, or other business because of the time required to travel between NIH facilities became major planning considerations. Some outlying sites such as at 5 Research Court near Shady Grove in Gaithersburg, Maryland and the facilities at Poolesville, Maryland are not served by shuttle service because the NIH presence in those locations is too small. The staff demand is insufficient to make shuttles economical or workable according to NIH planning personnel. Of utmost importance to nearly all ICs was the continuance of the “heart” of NIH – the Clinical Center Complex - with the associated intramural clinical and basic research conducted by all Institutes. Nevertheless, a number of programs are established elsewhere, for reasons related to those locations, such as the National Institute on Aging (NIA) at the Baltimore Gerontology Research Center (GRC) and the National Institute on Drug Abuse (NIDA) at the Baltimore Addiction Research Center (ARC). Both of these will be consolidated into a new NIH Bayview Research Center in Baltimore-a long term commitment to that location. Other portions of NIH that still would remain at other locations include facilities in Frederick, Maryland and behavioral and neuroscience research that are permanently located in Poolesville, Maryland.

The NIH campus is a transition in development density between the Central Business District and the surrounding neighborhoods. With 17,511 permanent employees currently on campus, NIH has an employee population of 56 persons/acre. This is less than the full-occupancy staff and resident population of 125 persons/acre for the Central Business District of Bethesda and more than the resident population of 8-12 persons/acre in the surrounding residential neighborhoods.

Transportation Management and Parking

The submitted Plan identifies several important aspects of the master plan impacting transportation and circulation issues of the campus. NIH employees also have identified issues of transportation and parking as an increasing concern impacting their work and the distress that there are not enough on-site parking spaces to accommodate the number of people who drive at the Bethesda campus. Many members of the NIH scientific community work irregular hours, and intramural investigators spend, on average, between 50 and 65 hours per week on campus, sometimes working until the early morning hours, leaving for home, then returning to the campus at midday, when parking availability is usually fully utilized.

To accommodate concerns, the 2003 update specifies several components to the Plan which will assist NIH to maintain important transportation management goals while identifying future development of limited multi-level parking structures. As submitted, NIH anticipates that it will maintain an employee-to-parking ratio of no greater than 0.50 which equates to two employees per parking space. However, depending on the extent of future regional transportation improvements, NIH would try to reduce the ratio to 0.45, or 1 space per 2.2 employees. NIH’s documentation of on-site employee parking could increase from 9,356 in 2003, to a maximum of 11,012 spaces (assuming NIH reaches its maximum population planning level) over the 20-year master plan period. This figure includes remnants of potential on-street campus parking. The NIH maintains, however, that it intends to continue its traffic management program to reduce on-site employee parking to the 0.45 level, if possible and would not exceed a total complement of 11,000 available employee spaces.

NIH has an ongoing Transportation Management Plan (TMP) with the objective of reducing peak hour vehicular traffic by encouraging NIH employees who drive to rideshare, use public transportation or use other alternative modes or alternative work scheduling. Maintaining the transportation management plan is mandated in a Memorandum of Understanding (MOU) signed by the NIH, the Montgomery County Planning Board (MCPB), and the National Capital Planning Commission (NCPC) in May 1992.

The MOU defined an agreement among the agencies that:

- The signatories will meet to discuss NIH issues affecting NIH transportation;
- The NIH commits to best faith efforts to meet its TMP and to seek funding for it; further, the NIH will monitor the success of the TMP with semi-annual traffic counts and annual evaluations;
- The NIH will assess its parking needs and attempt to reduce its future parking demand to the extent practical;
- NCPC and MCPB will evaluate future employment and parking in light of the NIH's success in implementing the TMP, and;
- The NIH will implement other measures if current strategies prove unsuccessful.

The addendum to the MOU lists three goals for the TMP and a series of short-term and long-term strategies. These goals and strategies have provided guidance for the TMP activities, which the NIH has been carrying out on a yearly basis and for the master planning purposes.

The goals of the MOU TMP are as follows:

- Improve the availability of parking spaces on campus for NIH personnel and visitors.
- Mitigate the traffic impacts of future campus development on the roadways serving the NIH campus, such that the level of congestion is made no worse than if such development did not occur.
- Maintain a “good neighbor” relationship with the surrounding community.

The NIH had engaged in efforts to manage its traffic and parking in furtherance of the MOU. This included provision of shuttle buses on campus to encourage employees and visitors to use Metrorail, Metrobus and Ride-On bus to access the campus.

	1995	2003
Number of Employees	16,500	17,511
Total Daily AM Peak Hour Trip Generation	5,242	4,190
Total Daily PM Peak Hour Trip Generation	5,138	3,159
Total Number of Parking Spaces	10,500	9,356
Number of Employee Transhare Participants	1,923	4,422

**TABLE OF COMPARISON OF VARIOUS FACTORS RELATING TO
NIH-RELATED TRAFFIC IN 1995 AND 2003**

The current efforts of the NIH Employee Transportation Services Office (ETSO) include programs to encourage ride-sharing, use of public transportation, and use of private NIH park-and-ride facilities and services. The following list details each of the current NIH Transportation Management Plan's programs and features, which are part of the master plan proposal:

- NIH Transhare Program – This program was established in 1992. As budgets permitted, the amount of subsidy and level of participation continued to rise. This program currently provides 4,422 employees a monthly subsidy of up to \$100.00 for using public transportation. In exchange for program participation, NIH employees must surrender all parking permits and privileges for use of on and off-campus parking areas.
- NIH Carpool Program – This endeavor allows employees to utilize strategically located “carpool” parking spaces that are located in close proximity to many potential on-campus destinations. The carpool spaces are reserved for employees with carpool permits until 9:30 A.M. There are currently 380 registered carpools (accounting for 760 NIH employees) on the NIH campus.
- NIH Vanpool Program – This strategy allows a group of employees to obtain an individually reserved space in the lot of their choice for a van. Vanpoolers (10 vanpools with 150 NIH employees) are eligible to participate in the NIH Transhare Program to subsidize their commuting cost(s).
- NIH Ride matching Program – Employees are provided with a list of other available people who are also looking to participate in the program from similar geographic areas. The NIH ETSO is very active in promoting and facilitating this program through the maintenance of an accurate database listing of all of the participants. In conjunction with the Ridematching Program, the NIH also participates in the Washington Metropolitan Council of Governments “Commuter Connections” Program.
- MWCOG Guaranteed Ride Home Program – the NIH participates in this program, which is also sponsored by the Metropolitan Washington Council of Governments (MWCOG). The program ensures commuters who regularly carpool, vanpool, bike, walk, or take transit to work with a reliable ride home when they need to work overtime or in the event another unexpected reason to leave work arises. The ride, using a taxi or other transit, is free to the user.
- NIH Alternative Work Schedule Program – NIH offers an alternative work schedule program.
- NIH Telecommuter Work Program – The NIH Telework Program enables eligible NIH employees to reduce or eliminate their commutes by working part-time or fulltime from a remote location, including their home, a telework center, or some other approved site. “Telework”, which is also known as “telecommuting”, is a management tool that is designed to help organizations and individual’s function more effectively and efficiently, as well as recruit and retain qualified employees.
- NIH Shuttle System – the NIH has its own comprehensive shuttle system, which provides regular service to the whole campus and to all of its off-campus work locations. The shuttle system consists of seven routes, with one route serving just the campus as a “loop” route; the “loop” route runs with 10-minute headways while the other routes have headways which vary by route. The campus contains thirteen stops, which are all in close proximity to the buildings. Approximately 3,400 employees use this service during the workday. Several shuttle routes operate from 6:30 a.m. to past midnight. After normal route times, the shuttle operates as an escort service to transport employees to their vehicles. Three of

the NIH Shuttle stops serve as transfer locations to other shuttle routes and the Montgomery County Ride-On and WMATA Metrobus systems. One of the transfer locations is located at the Medical Center Metrorail station located on campus, where a rider may transfer to the Metrorail, Metrobus, or Ride-On bus systems.

- NIH Express Bus Routes – the NIH has worked with Montgomery County, the National Naval Medical Center, and Suburban Hospital to implement several express bus routes which link the Bethesda Campus directly to the Milestone Park & Ride Lot in Germantown, Maryland, the Lakeforest Mall Park & Ride Lot in Gaithersburg, Maryland, Tyson’s Corner in Virginia, and the New Carrollton Metro Station in Prince George’s County, Maryland. These express buses operate during the morning and evening rush periods.
- Off-Campus NIH Satellite Parking – There are currently 575 spaces available to NIH employees at off-campus, satellite locations.
- NIH Construction Contractor Parking – NIH requires construction contractors to park in off-campus locations. There are currently 150 off-site spaces provided for construction contractor parking, and NIH operates a dedicated construction employee shuttle during the morning and evening rush periods, between the offsite parking and NIH campus. The shuttles do not travel on residential streets.
- Managed NIH Parking Facilities – For those employees who must drive to work, a parking management company has been established to assist in parking employees and visitors to the NIH campus. This allows for increased efficiency in the utilization of several parking facilities on campus, and results in more overall campus parking capacity.
- Paid NIH Visitor Parking – the NIH has implemented paid visitor parking on the Bethesda Campus to discourage non-visitors from parking in visitor parking spaces on-campus.
- Information and Communication Systems – NIH is developing enhanced transportation systems information for employees and visitors to provide greater opportunity for them to choose the best transportation and parking alternatives for their commute and trip to the campus through modern communications such as Metro alerts and the Official NIH Website. The NIH provides updated parking, transit, and transportation demand management (TDM) information to employees. Other provisions also include:
 - Highway Advisory Radio (Emergency Broadcast System). The NIH installed and operates a Highway Advisory Radio (HAR) system on the campus. At the present time, this system is used to provide information regarding current facility and operational status and situations, and to inform them of upcoming changes in the parking and traffic facilities.
 - Real-time Bus Arrival Forecasts. The NIH has contracted to install this system that will provide “real-time” shuttle arrival information to shuttle users at on-campus shuttle stops through the use of electronic signs.

The October 2003 traffic-monitoring program and transportation study developed for the master plan and its implementing projects revealed that NIH currently generates 4,190 AM peak hour trips and 3,159 PM peak hour trips. Thus, NIH’s trip generation rates are significantly below the MOU rates by approximately 1,698 AM peak hour trips and 2,613 PM peak hour trips, through enactment of TMP measures. The supporting master plan data indicate that if the main campus employee population grows as estimated (approximately an additional 4,500 (26%) employees to an approximate total of 22,000), trip generation would increase by 1,074 AM NIH peak hour trips

and 810 PM NIH peak hour trips, using a straight-line extrapolation. Therefore, the total AM NIH peak hour trips of 5,264 and the total PM NIH peak hour trip of 3,969 for the master plan update would still be below the MOU-based limits of 5,888 AM peak hour trips and 5,772 PM peak hour trips.

Preliminary and Final Site and Building Plans for the Gateway Center Project and the Commercial Vehicle Inspection Facility

The submitted preliminary and final site and building plans for each of the subject projects implement two major physical improvements covered by the master plan. These projects carry forward necessary actions to better secure the NIH Bethesda campus in accordance with master plan objectives of improved perimeter security for the NIH.

The Department of Health and Human Services Office of the Inspector General reviewed the NIH Bethesda campus physical security in late 2001 and at that time made the following recommendations in a formal report to the Secretary of Health:

- Improve perimeter security by: installing a perimeter fence with a limited number of controlled entry and exit points; constructing a visitors center and parking facility; installing additional surveillance and new barriers;
- Improve staffing of security functions and construct a centralized shipping, receiving and storage facility;
- Improve interior building security on the campus;
- Improve security planning.

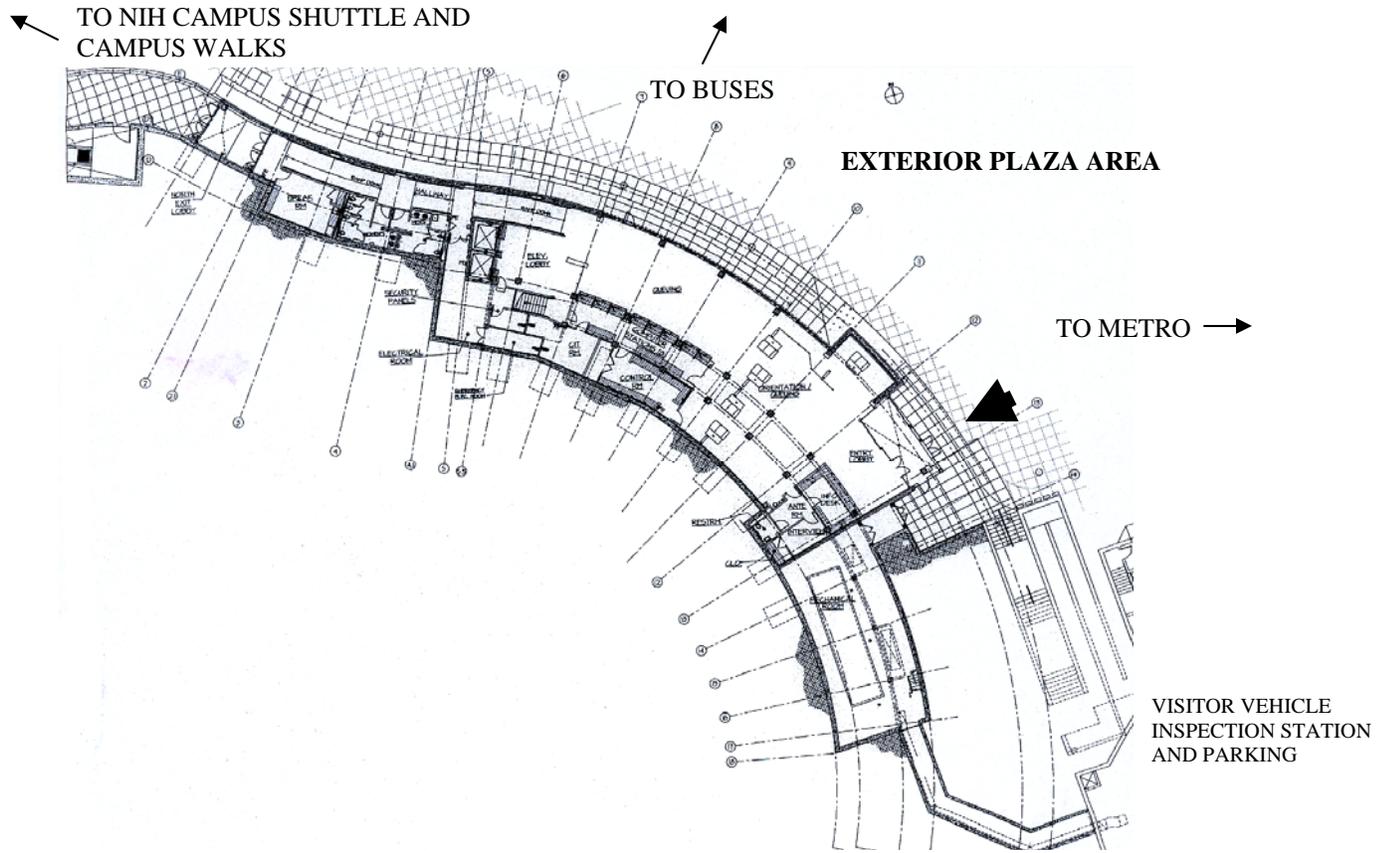
The submitted preliminary and final site and building plans fulfill the directives made to NIH by the Department.

The Gateway Center (GC) is a facility designed to serve as a central operation that provides screening, welcoming, and orientating of visitors to NIH. The submitted plans identify the following major components of the GC:

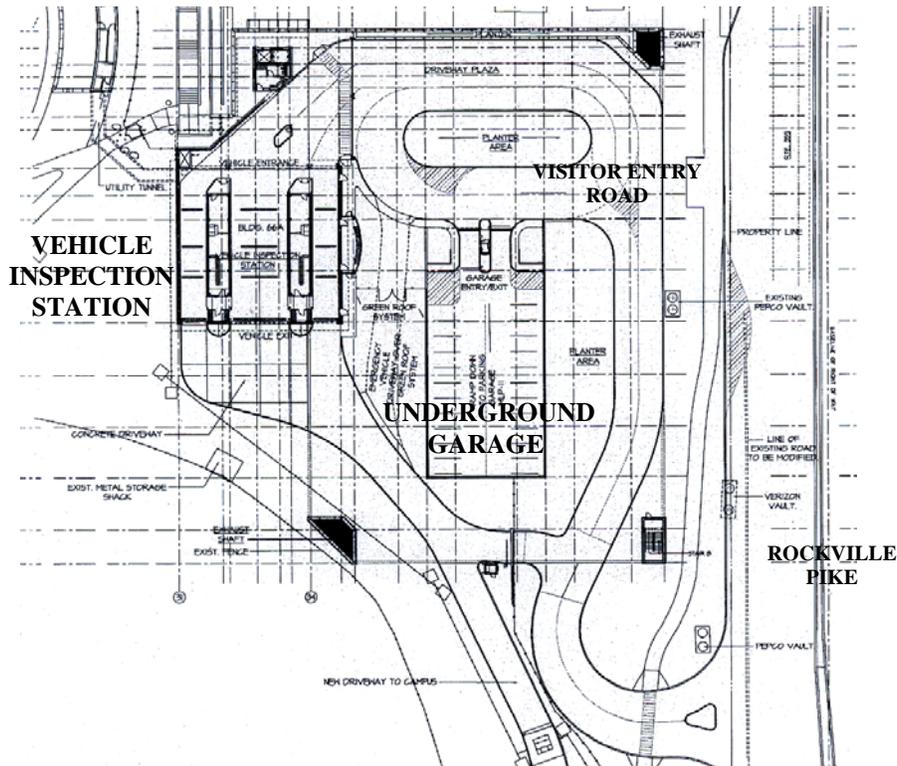
- A 12,325-gross-square-foot visitor building that allows a secure entrance, provides processing space, and establishes information areas for visitors
- A 350-space consolidated underground visitor parking garage located outside the campus security perimeter
- A 8,377-gross-square-foot visitor vehicle inspection and control station

The GC is located adjacent to the NIH Metrorail Station entrance at South Drive and the road intersection with Rockville Pike at the southeast portion of the campus perimeter. The GC visitor building is integrated into the steeply sloping hillside visible from South Drive. The hilltop remains and screens the facility from Center Drive and the Stone House.

The height of the visitor building is one-story with an upper level clerestory. The upper level roof terrace matches the existing elevation of the hill and establishes a pedestrian link from the building to other pedestrian walkways and spaces in the south campus. The building's exterior walls of horizontal and vertical precast concrete units exhibit glass entry areas enclosed with storefront

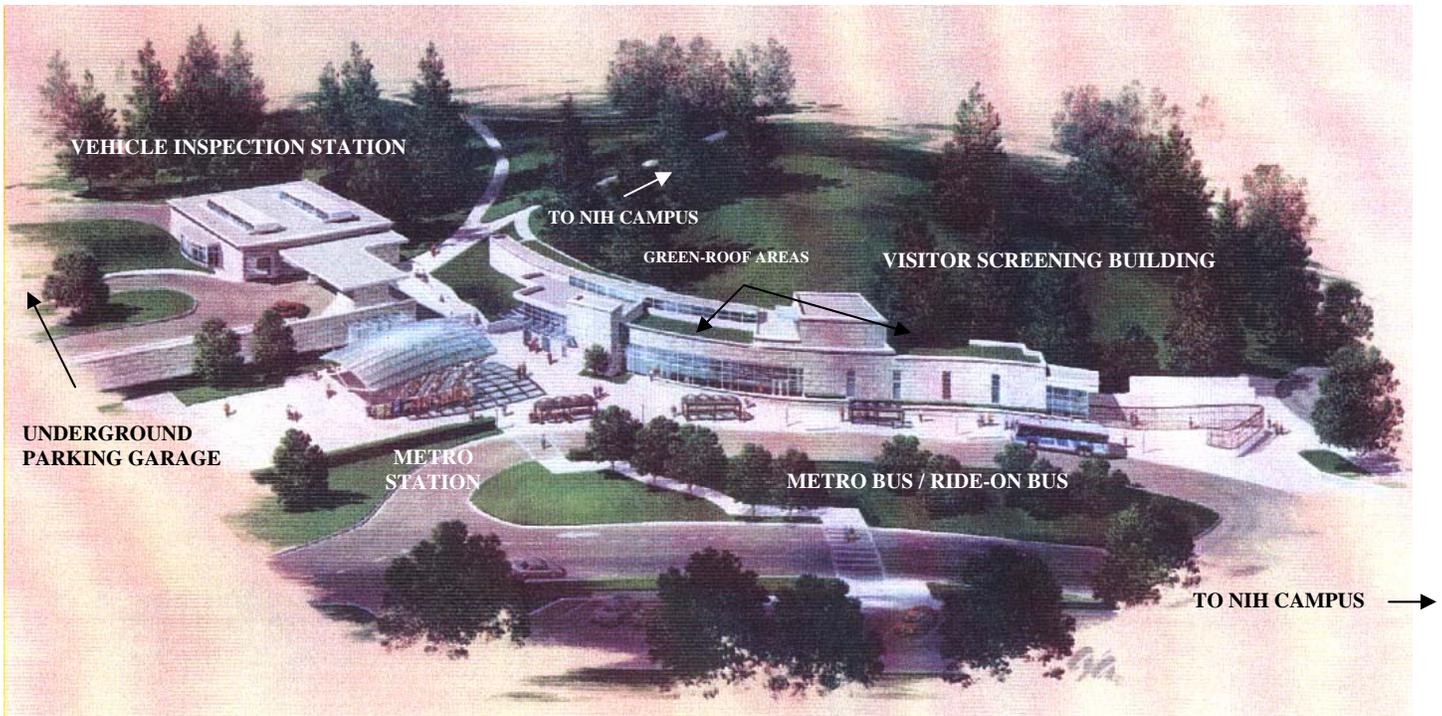


GATEWAY CENTER MAIN FLOOR PLAN AT PLAZA LEVEL



GATEWAY VISITOR VEHICLE INSPECTION STATION AND UNDERGROND PARKING GARAGE

The GC would process up to 5,000 visitors a day and would provide all necessary functions for security review of visitors to NIH. It will serve as the only public entrance to NIH available to visitors under all Department of Homeland Security threat-level alerts. Access for visitors arriving by foot, transit, bicycle or vehicle will be at the GC where a visitor parking structure would be available for most visitors' vehicles. Visitors arriving at this location will proceed to the interior of the campus, after screening review, and would walk or use the internal shuttle service to their destinations within NIH.



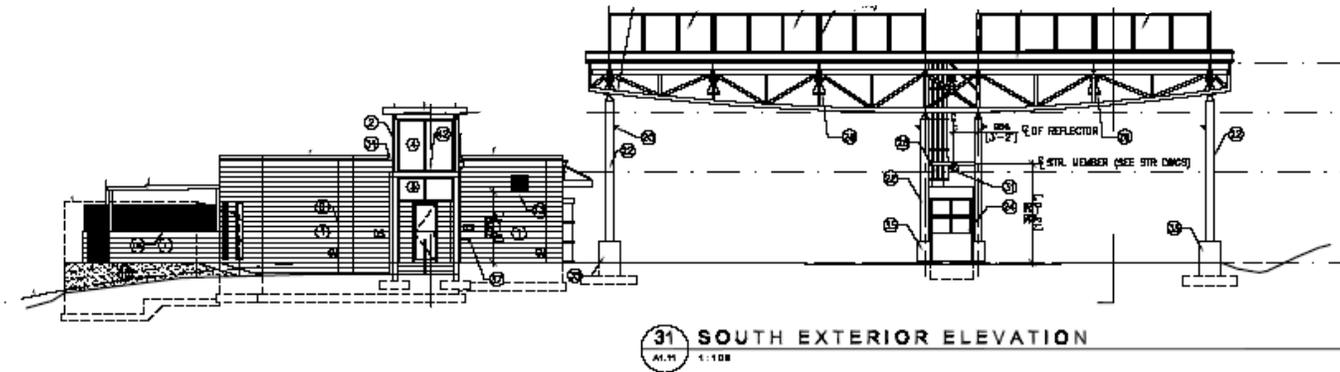
GATEWAY VISITOR CENTER - ARTIST AERIAL VIEW AS SEEN FROM NORTH

The Commercial Vehicle Inspection Facility (CVIF) is primarily a truck screening and inspection point at the NIH site perimeter boundary that serves to meet security objectives noted earlier, particularly in regard to the inspection of large commercial trucks. Development of the preliminary and final site and building plans allows construction of a centralized shipping, receiving and temporary storage facility, accommodating all large commercial vehicles with a dedicated access drive from Rockville Pike (MD 355). Over 90 percent of the trucks requiring access to the NIH campus come from the Beltway (I-495), and these types of vehicles will be able to enter the facility with a right turn only, minimizing approach back-ups. Adequate queuing space and screening operational space are provided in the design to allow up-to-date inspection processes at one consolidated location. The screening process will be integrated with the loading dock management at each destination building so that arrivals, especially at the Clinical Center, would be scheduled and monitored with full oversight.

The CVIF site development contains a multi-lane drive from Rockville Pike consisting of asphalt and concrete. The drive lanes are four 14-foot-wide inspection areas about 300 feet in length. This distance also accommodates queuing space for high volume time periods with a total length of almost 1000 feet. A pull-off lane is also located within the drive area. A high free-standing canopy covers the inspection area that extends over all the lanes. The support building with storage area and a newly placed driveway bridge are situated at the complex also. The project provides ten parking spaces for security vehicles, including one handicapped parking space.

The main structure associated with the project development is the CVIF support building which features security personnel space such as locker rooms, meeting space, offices, restrooms and an observation/administration control center. Also included in the building layout are kennels for seven screening/guard dogs stationed at the CVIF. In total, the building is comprised of approximately 6,489 square feet of space. The building exhibits full single story concrete masonry walls finished in a light-gray color. Various windows are positioned at the drive level along with several doorways, including the main entrance, while a clerestory window system is positioned at one-third the width of the building centered on the main corridor of the structure.

Under the canopy structure, which is a tubular open frame construct, are positioned three guard booths with bullet resistant glazing. The booths are six feet wide by nine feet in length. Centered along the inspection lanes, the guard booths feature stainless steel exterior walls and laminated glass viewing areas with matching doors. The canopy structure maintains south facing skylights at the top roof-line which provide daylight openings at the guardhouse locations. All trim and fascia of the overhanging canopy is white with dark gray truss work.

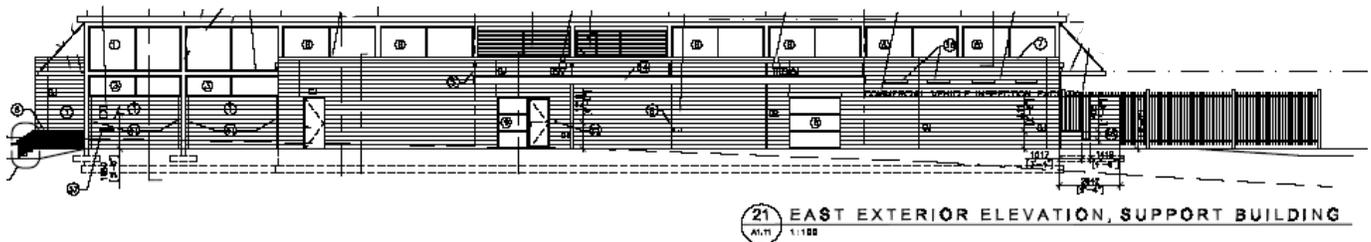


COMMERCIAL VEHICLE INSPECTION FACILITY BUILDING ELEVATION

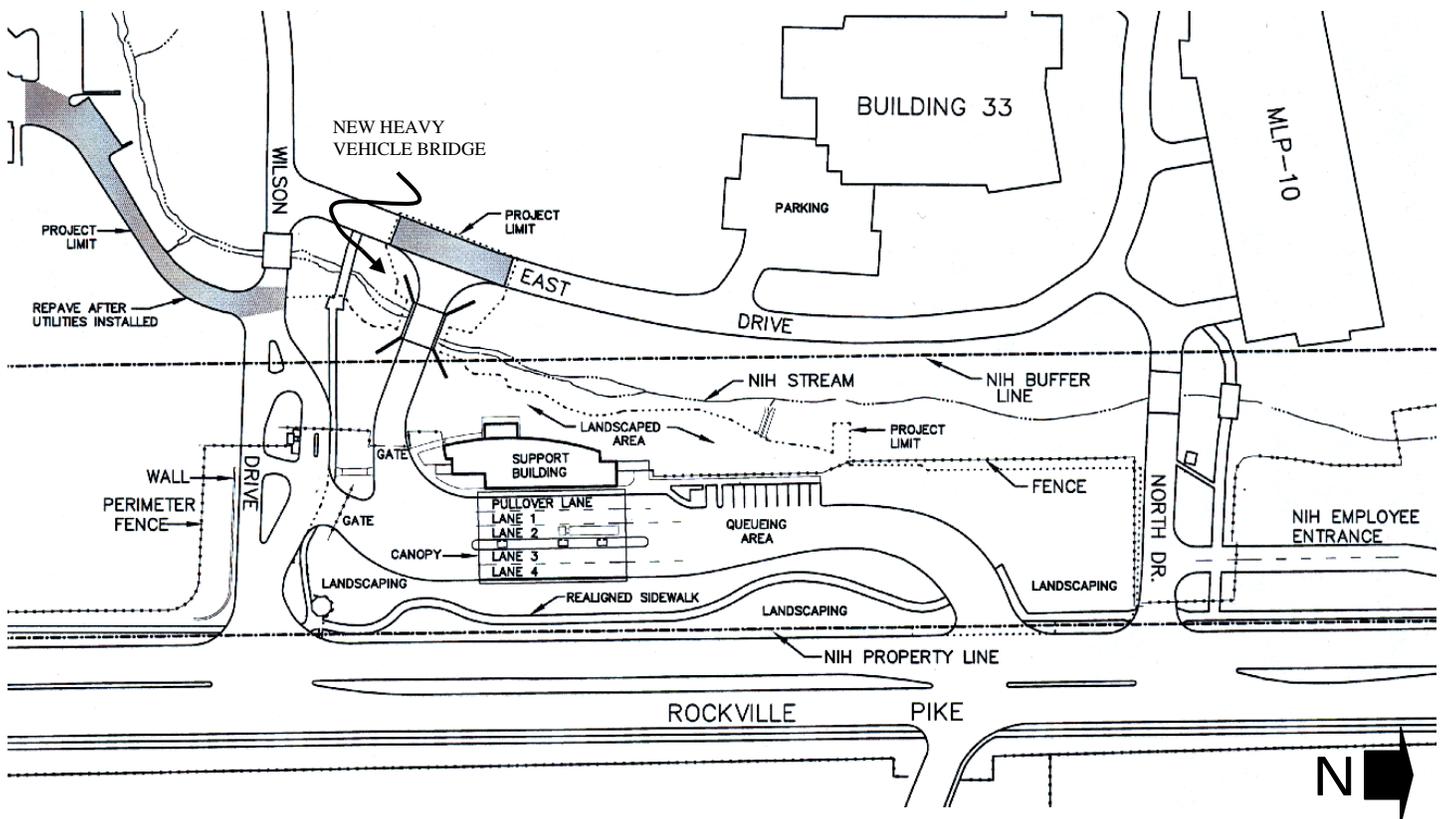
Other site features at the CVIF involve exterior lighting, significant new landscaping, and a newly constructed vehicle bridge. Wilson Drive has been designated as a major entry for service traffic and also as commercial vehicle entry after passing through inspection. There will be a new vehicular bridge, faced in precast stone and matching the design of the existing bridge, at Wilson Drive. The new bridge will provide access from the CVIF to East Drive to carry trucks to Wilson Drive. The new bridge and stream restoration will be implemented with significant stormwater

management and erosion control provisions established. An extensive project buffer and screening planting plan, comprised of over 450 trees and 525 shrubs, is included. However, staff in reviewing the final site landscape plan with the Maryland-National Capital Park and Planning Commission staff finds the 12 street trees need to be increased in size and the species altered.

Maryland state permitting requirements will be adhered to achieve stream side planting and establishment of increased side slope vegetation with the development of the CVIF.



COMMERCIAL VEHICLE INSPECTION FACILITY BUILDING ELEVATION



COMMERCIAL VEHICLE INSPECTION FACILITY SITE PLAN

With the construction of these two new perimeter security facilities, and by controlling access and performing screening at the site perimeter, the NIH will be able to reopen most of its buildings' entrances within the campus perimeter to allow resumption



EXAMPLE OF HEAVY VEHICLE BRIDGE DESIGN FOR THE CVIF SITE

of free passage from one structure to another. Exceptions to this include critical buildings such as the central utility plant, Building 11, and the main frame computer in Building 12 which will have permanent staffed access controls.

Development Program

Applicant: The National Institutes of Health

Estimated Cost: Master Plan has no estimated costs identified as programming is dependent on legislative funding. Individual projects that comprise the submission include the Gateway Visitor Center at an estimated cost of \$25,500,000 and the Commercial Vehicle Inspection Facility with an estimated cost of \$7,300,000

Architect: Master Plan was developed by Oudens+Knoop Architects, PC, Chevy Chase, Maryland and the Smithgroup, Washington, DC
Gateway Visitor Center is designed by IDB Architecture, Inc. Fairfax, Virginia
Commercial Vehicle Inspection Facility is designed by Louviere, Stratton& Yokel, LLC Greenbelt, Maryland

Completion Date: First phases of construction for both the Commercial Vehicle Inspection Facility and the Gateway Visitor Center are to begin in early 2005.

Urban Design Context

The NIH is located within the community area of Montgomery County, Maryland known as Bethesda, Maryland. It is located within the Bethesda-Chevy Chase/North Bethesda Planning Area 2 boundaries, adjacent to and to the north of the Bethesda Central Business District (CBD).

Studies of the Community-Based Planning area of the Maryland-National Capital Park and Planning Commission (M-NCPPC) have acknowledged the established and stable nature of local

residential neighborhoods. These plans also identify the central business districts of Bethesda and Friendship Heights, the transit station areas of Grosvenor, White Flint, and Twinbrook, and the commercial centers of Westbard and Wildwood serve as community focal points for the surrounding residential neighborhoods. The National Naval Medical Center and the NIH campus serve as major federal employment areas for both the area and region. Maryland highway Route 355 (Wisconsin Avenue/Rockville Pike), county and regional buses, along with the Metrorail system provide major transportation links within the geographic area associated with NIH.

Seven predominantly single-family neighborhoods and one multi-family neighborhood are immediately adjacent to the NIH. These include Edgewood/Glenwood, East Bethesda, Huntington Terrace, Maplewood, Sonoma, Locust Hill, and Ayrilawn. One predominantly multi-family neighborhood adjoins the campus to the south, Battery Lane District. Only one of these single-family neighborhoods - Glenwood, the eastern portion of Edgewood/Glenwood - adjoins the NIH campus directly, along with the Battery Lane District. The other six are separated from the campus by major roads.

The current census indicates the neighborhoods immediately surrounding the NIH are developed with single-family detached homes on relatively small lots—one quarter acre or less (64.4% of Bethesda-Chevy Chase Households). The oldest homes date from the 1920s when the vicinity was a summer cottage area for residents of the District of Columbia. The last major housing tracts were built after World War II in the 1950s. Home building continues on the remaining vacant land in the area, including a recently completed cluster of townhouses across Rockville Pike from NIH and south of Jones Bridge Road. Most other development in the last three to four years is focused further north along the Rockville Pike corridor.

The adjacent areas near NIH have been filled with an eclectic assortment of housing styles and sizes, set on relatively narrow, tree-lined streets. These varied houses, with their convenient down-county location and good schools, command sale prices in the upper price ranges for their respective size and categories, and they tend to sell relatively quickly on the market. There are some isolated pockets of new construction on vacant parcels or lots where more expensive new and larger homes are replacing smaller older models.

The Bethesda Central Business District (CBD), adjoining the southern boundary of the campus, is one of the largest suburban business centers in the region. In the decade ending in 2000, over 960,000 square feet of office and 280,000 square feet of retail space were constructed. The largest mixed-use complex in the CBD, Metro Center, is built directly over the Bethesda Metrorail station and bus terminal which handles more than 15,000 passengers on the average weekday. Unlike most suburban downtowns, which are predominantly office complexes, the Bethesda CBD contains extensive retail space and many apartment buildings and hotels. The several hotels host NIH-oriented conferences, visitors, patients, and patients' families. Total employment in 2000 in the CBD was estimated to be 43,000 of which 31,800 were office workers. Between the CBD, the NIH, and the National Naval Medical Center the area has one of the largest employment concentrations in suburban Maryland. Residential development within the business district includes 5,200 units, almost ninety percent of which are high-rise or garden apartments. The 2000 population of the Bethesda CBD was 8,035. Singles, young couples, and elderly comprise the population mix in the CBD. Median housing value is \$396,400, and estimated average household income is \$99,102.

Numerous institutional, private and public facilities are dispersed throughout the surrounding area. Several large land holders include federal installations, country clubs, private schools and institutional services. These large land holders, combined with a broad park system and low-density wooded sites, create a strong sense of openness that adds to the special character of the community. The National Naval Medical Center and the Uniformed Services University of the Health Sciences, to the east of the NIH campus, are military installations that also maintain campus settings.

COORDINATION

The NIH initiated consultation with NCPC staff concerning the revised Master Plan in early 2003. In its planning efforts, the NIH design team has maintained complete communication with all stakeholders in the initiative for future planning and has conducted several community meetings with the surrounding community, and has also communicated with staff of the Maryland-National Capital Park and Planning Commission (M-NCPPC) regarding the master plan.

In 1998, the NIH Community Liaison Council (CLC) was established by NIH to coordinate community issues and NIH operations. The CLC meets monthly. As part of the environmental and project review process, master plan documents have been provided to the CLC and the general public for review and comment. Presentations have been made to the CLC at various times throughout 2002 and 2003 in the development of the 2003 master plan effort. In mid- to late 2004 the CLC reviewed specific topics of the master plan in their monthly meetings.

In May 2004 M-NCPPC provided comments to NIH regarding the separate projects of the Gateway Center and the Commercial Vehicle Inspection Facility. These comments included the following:

- Provide a Natural Resources Inventory/Forest Stand Delineation for both the Visitor Center and the CVIF project.
- Provide an Existing Conditions plan that shows both projects on the same sheet if possible. The Existing Conditions drawing (as well as all the site drawings in the packages) should be in English units, such as 1 inch equals 50 feet. It should identify trees to be removed also.
- The CVIF site plan drawing should show the stream valley buffer in the area of the CVIF. Drawing should also show the "critical route zone".
- A planting strip should be left along Rt. 355 in the vicinity of each project and regularly-spaced street trees should be placed within the planting strip.
- The county is still awaiting information on traffic conditions along Rt. 355 and the impact of the proposed curb cuts on local traffic conditions.

NIH has provided responses to the issues identified above. In a response to NCPC in November 2004 NIH planning staff indicated the following:

NIH is preparing a Forest Conservation Plan including all of the items from M-NCPPC's staff asked to be addressed. NIH believes the drawing being preparing, using GIS, will satisfy the staff's request.

NIH did not prepare separate drawings with just the two projects since it wouldn't be readable. We do, however, show the two projects on the Master Plan Update Illustrative Plan. The site plans for each project were supplemented to include an English unit site plan, at a scale of 1 inch equals 30 feet, with our NCPC submissions. These submissions were also given to M-NCPPC staff. (Even though as a federal agency NIH adheres to a required construction drawings measure in metric units. NIH has directed its A/E to prepare a special site plan using English units.) The respective submissions show trees-to-be-removed.

The CVIF site plans, and Entrance/Traffic Control Plan, shows the County's 125-foot stream buffer and the State's 50-foot stream buffer, which NIH maintains pursuant to federal requirements. NIH follows State standards, not[the] County's where there is a difference. Sheet C19 includes a Stream Restoration and Planting Modification Plan, which contains a significant amount of new planting between the proposed CVI and the NIH Stream.

The proposed design plans for both the CVI and Gateway Center include a planting strip with street trees as requested by M-NCPPC.

Given the County's concerns about local traffic effects, NIH prepared a separate Master Plan Transportation Report that evaluated existing and future traffic conditions in the area of the campus assuming full build-out of the master plan. This was included with our master plan submission. In September 2004, NIH submitted applications to the Maryland State Highway Administration to construct two new driveways on Route 355 to serve the CVIF and Gateway Center. Since Route 355 is a State facility, it is the Maryland State Highway Administration's responsibility to determine whether new connections will adversely impact traffic flow along its roads. Recently, NIH was advised that the access permit for the CVIF has been approved. NIH is awaiting word on the permit for the Gateway Center.

It is anticipated that in mid-December 2004, M-NCPPC staff will provide comment that essentially reflects issues asked of NIH by M-NCPPC in February 2003, according to the latest communication between M-NCPPC reviewing staff and NCPC. The issues noted in those earlier comments include:

- Encroachment of security screening projects into the east buffer zone.
- Preparation of a Natural Inventory and Forest Stand Delineation Plan.
- Further documentation of potential traffic pattern impacts and queuing from security inspection
- Request to NIH to build a Class I bikeway along Georgetown Road
- The future development of local roadway interchange

M-NCPPC staff maintains they have received little follow-up communication from NIH regarding these issues. NCPC review of the master plan update has determined that the issues specified by M-NCPPC have been addressed by material of the master plan or the separate project submissions provide to NCPC to the extent noted above. It is possible M-NCPPC has not received all drawings cited above.

Nevertheless, to confirm NCPC staff understanding, and to validate the project characteristics or issues expressed in the master plan, NCPC staff requested NIH to respond to the February 2003

M-NCPPC issues. On December 14, NIH provided additional information regarding these M-NCPPC topics and that information is attached to this report (see attachment).

Additional coordination of the master plan and projects was undertaken by NCPC staff in providing copies of the *Draft Master Plan 2003 Update* to the Maryland Department of Planning, in September 2004.

In December 2004, the Maryland Department of Planning (MDP) developed preliminary review comments and indicated in conversations with staff on December 14, 2004, that most state agencies have found the Plan and two implementing projects consistent with Maryland planning goals and objectives. The one concern highlighted by the Department was to possibly establish more office space adjacent to the Medical Center Metro Station (see attached comment). The review also noted that future off-site NIH expansion should consider only transit accessible locations if possible. The Department of Planning did indicate verbally they have received initial suggestion from the M-NCPPC of concerns, but have been unable to obtain specifics when they were requested. Consequently, the Department anticipates their formal review correspondence to NCPC will be delayed until further coordination with M-NCPPC has occurred.

NCPC staff concurs with the Department's observations relating to future projects, and will maintain monitoring of the detailed implementation of the master plan to consider improvement to pedestrian connections within the campus boundary and the adjacent Metro Station.

Also provided from the MDP referral were comments from the Maryland State Highway Administration (SHA) provided on December 16, 2004. The SHA review indicated that it was unclear if the revised magnitude of land use is reflected in any adopted Constrained Long Range Plan of traffic improvement for the Washington Region. An additional comment noted that further distant located highways, such as I-495, I-270 or Maryland Route 187 were not mentioned as being evaluated or affected by the master plan traffic.

NIH provided NCPC staff data to indicate that the primarily traffic analysis of the Plan was conducted using M-NCPPC's Local Area Transportation Review (LATR) procedural guidelines. The second analysis approach employed the Critical Lane Method, a widely used review for evaluating congestion in urban areas. Because no significant change in the overall campus land use is anticipated, no consideration of needed Constrained Long Range Plan impact was anticipated.

The analyses revealed that traffic volumes and congestion would increase on all roads around the campus over the next 20 years even if NIH trip generation remained unchanged (increase is due primarily to growth in background traffic). Additionally, by the end of the master planning period, the number of intersections in the vicinity of the campus with Critical Lane Volumes (CLV) greater than the County threshold (1,600 vehicles per lane in the peak hour period) would increase whether the master plan implementation went forward or not. The number of intersections with CLVs higher than 1,600 is primarily due to growth in background non-NIH traffic (Gorove/Slade Assoc. June 2004). The MWCOG studies have clearly indicated this background increase will occur over all network roads including I-495, I-270, and Maryland Route 187.

PROJECT ANALYSIS

Executive Summary

The current submission reflects several refinements to the land use plans, which the Commission approved as part of the master plan review of 1996 and 1999. Staff has determined that the modifications are consistent with the previously approved plans. Changes include shifts in existing parking areas allowing the return of additional open space to the plan.

Staff believes that the architectural guidelines and the concept provisions of the eleven Sector plans that comprise the Plan update complement the building massing of the campus and maintains the visual theme of the overall campus composition. This goal is being achieved in the Plan even though the building density is greater in the newly submitted Plan.

The updated master plan is proposing significant increases in NIH personnel during the planning horizon of the document but does commit to an absolute ceiling of maximum employment recognizing the sustainable limits of both the NIH campus as a whole and the off-site influences that will be adversely affecting NIH operations in the ensuing years. In that respect, NIH is also maintaining its MOU transportation goals identified in its agreement with NCPC and the Maryland-National Capital Planning Commission and does not exceed the transportation limits established in that agreement. Nevertheless, the current master plan falls short in acknowledging any attempt to comply with the new parking ratio requirements of the Commission adopted in August 2004 and which was announced many months earlier. The proposed master plan should anticipate adhering to the Comprehensive Plan goals, modified in August 2004, and apply those standards to the NIH campus. Consequently, staff believes the Plan revisions should be accomplished to acknowledge the new employee parking ratio goal applicable to the Main Bethesda Campus, which is established at one space per three employees versus the current cited one space per two employees. Projecting to the ultimate employee base of 22,000, the ratio revision would mean a difference of over 3000 parking spaces. Effectively, the new ratio freezes the current parking level now existing.

An additional aspect to the staff's Plan review is related to the TMP strategies. The staff realizes the commendable NIH efforts over many years to maintain a Transportation Management Plan component at the Bethesda Campus. This is fully demonstrated in the 2003 update and the NCPC applauds all these NIH efforts and earlier successes, including continual compliance with the 1992 MOA. However, the Commission staff requests the NIH fully review the potential for telecommuting of its employees at the main Bethesda Campus to affect possible improvement in the NIH master plan employee parking ratio. The master plan touches upon the general scope of the viability of telecommuting but a more thorough evaluation and full commitment to identify a telecommuting plan is believed necessary to achieve the reduction in single occupancy vehicles driven to NIH. Such an effort would assist to comply with the new NCPC parking ratio standard for that campus.

Consequently, staff recommends **approval of the submitted 2003 Master Plan Update with conditions**, and the **approval of preliminary and final site and building plans for the Commercial Vehicle Inspection Facility and the Gateway Visitor Center, with one recommendation**. The guidance on the final site design responds to M-NCPPC staff concerns

involving selection of tree size and species. The one condition to the master plan relates to NIH accomplishing a Forest Delineation Plan also requested by M-NCPPC staff. Otherwise, NCPC staff believes the Update will result in sufficiently fulfilling the installation design objectives and provide for new construction of buildings, vehicle and pedestrian circulation, and acceptable site development.

However, while encouraged by the submitted Plan, staff also believes the commitment to the Transportation Management Plan (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 which did not consider the new Comprehensive Plan parking requirements. As presented, the proposed ratio of the submittal stands at odds to the Comprehensive Plan goals.

To achieve the TMP objectives sought by NCPC while recognizing the extensive and significant TMP program currently existing at the NIH Main Bethesda campus, **the staff recommends the Commission indicate to NIH the expectation it implement telecommuting objectives** at the Bethesda Campus which could assist to meet the adopted employee parking ratio during at least a substantial portion of the federal work week. The strategies to be achieved should be presented in the submission of the next preliminary plans for any new construction evolving from the 2003 Master Plan Update. Moreover, the NIH is reminded that the parking management requirements for NIH should demonstrate adherence to the Commission specified ratio of one parking space per three employees.

CONFORMANCE

Master Plan

The preliminary and final design proposal for the Commercial Vehicle Inspection Facility and the Gateway Visitor Center adhere to the submitted 2003 Master Plan Update provided to the Commission.

Urban Design and Security Plan

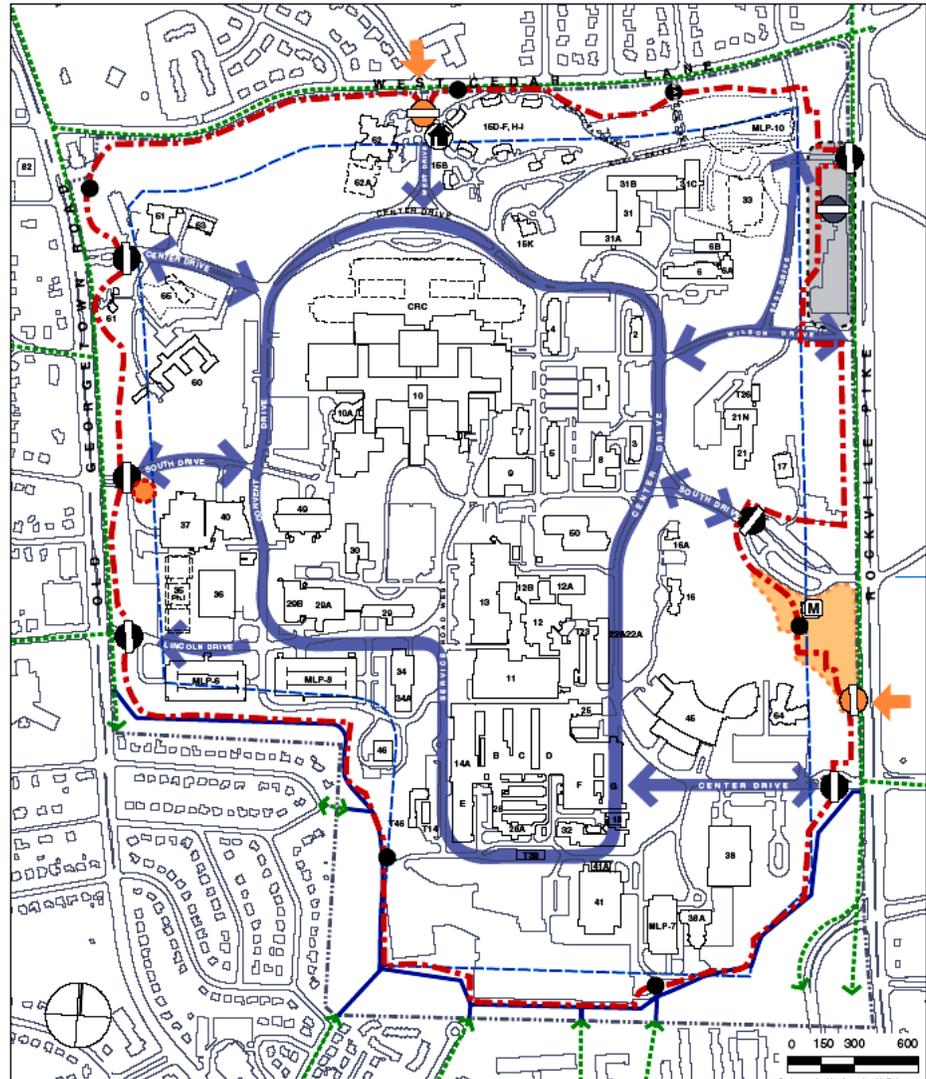
The submitted plan has undergone security review and analysis by Department of Health and Human Services headquarters staff to meet the objectives of the Department's security protection measures. Setbacks of proposed building locations have been identified and implemented in the master plan, and control points and/or inspections points for both pedestrian and vehicle traffic have been established.

One goal described in the Commission's 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 NIH Plan demonstrates this intent by providing setbacks at the street edge of the campus boundaries.

Proposed changes have occurred through the master plan development adhering to the concerns of the UDSP. The submitted security improvements projects are carefully integrated to maintain the established principles and concept of the Plan. The Commercial Vehicle Inspection Facility (CVIF), the Gateway Center for visitors, and the existing perimeter fence have all been developed by carefully incorporating the project requirements with the existing site features and maintaining

as much of the perimeter campus buffer area as possible while still achieving the propose of the projects. It is the goal of the master plan to remove all surface parking from the buffers, with the exception of paved surfaces associated with the CVIF and the new Gateway Center and to minimize the physical presence of these facilities through augmented landscape planting, maintaining setbacks, and achieving quality architectural finishes.

The main access for visitors to the campus will be at the Gateway Center to be located integral to the Metrobus and Metrorail station. This location along Rockville Pike across from the Naval Medical Center bounded north, south, and west by NIH property is not proximate to any of the surrounding neighborhoods. The Gateway Center will be a facility performing security checks for incoming visitor traffic and issuing security credentials. The Gateway Center will include a visitor center for visitors arriving by foot, transit, or bicycle and a visitor parking structure for visitors arriving by vehicle. A secondary access for Clinical Center patients or accompanying family arriving by foot, or vehicle will be provided at West Cedar Lane and West Drive. A further pedestrian access point for cross-campus entry will occur at South Drive on the west campus boundary.



**NIH
Master Plan
2003 Update
Bethesda Campus**

- Visitor Access
- Vehicle Access
- Veh. & Service Access
- Emergency Evacuation/Exit Only
- NIH Residence Access
- Pedestrian Access
- Property Line
- Buffer Line
- Fence Line
- Proposed Loop Road
- NIH Bikes/Pedestrian Path
- Public Bike/Ped. Path
- Proposed Building Currently Under Development
- Proposed Commercial Vehicle Inspection Site
- Proposed Gateway Center
- Possible Site of West Visitor Facility

**Security
Improvements Plan**
SmithGroup

Oudens & Knoop, Architects, P.C.

The impact of the physical security measures - the perimeter fence, the Gateway Center, and the Commercial Vehicle Inspection Facility - on the master plan as a whole is in the revision to traffic patterns for vehicles accessing the campus, including a significant reduction in the on-campus traffic due to elimination of cross-campus motor travel. The level of restriction and screening of persons and vehicles arriving at the campus will vary in accordance with the alert level as established by the Homeland Security Advisory System. The NIH Bethesda campus will retain its openness within the perimeter and will increase protective measures for buildings and other facilities to ensure the safety of the people and programs on campus.

Due to the campus security plan, the NIH shuttle system will be divided into on-campus shuttle routes and off-campus shuttle routes. The on-campus shuttles will only circulate on-campus and never leave campus and the off-campus shuttles will only circulate off-campus and never enter onto campus. Both shuttle systems will connect at the NIH Visitor Center, where passengers will transfer between the two systems. The principal point of campus entry for public transit riders will be at the Medical Center Metrorail station entrance, where they can transfer to the internal campus shuttle or walk to their destination. All visitors using transit will enter the campus at this point. Most of the NIH employees arriving by transit will use this entrance as well, but they can also enter the campus from other bus stops around the campus perimeter via employee pedestrian gates.

Public bus service will transfer to the NIH "on campus" shuttle system at the Gateway Center rather than entering directly onto campus. Improvements proposed to make public transit more viable as an option include: the addition of a transit information center located in Building 34/34A, enhanced and updated signage and information at the transit nodes; accommodation of bicycle Metro commuters throughout the campus, and improved NIH transit programs and publicity, in conjunction with the designation of a transit information center at the Clinical Research Center.

National Environmental Policy Act

Pursuant to the requirements of NEPA, NIH prepared an Environmental Impact Statement (EIS) on the master plan and its project development. The NIH has circulated the EIS for public comment and conducted a public meeting about the EIS on November 8, 2004 in Montgomery County. NIH received eleven agency and public comment letters on the EIS. NIH will be completing its review of comments and will conclude the EIS with a Record of Decision on the master plan. NIH has developed Environmental Assessments for both the Commercial Vehicle Inspection Facility and the Gateway Visitor Center and has developed Findings of No Significant Impact for each of those actions in December and October 2004 respectively.

In November 2004 the NCPC staff commented on the EIS to highlight several concerns the staff identified when reviewing the draft EIS. These included:

- That NIH acknowledge an attempt to comply with the new parking ratio requirements of the Commission announced and adopted in August 2004.
- Requesting that the NIH fully review in the EIS the potential for telecommuting of NIH employees at the main Bethesda Campus to affect possible improvement in the employee parking ratio for the master plan.
- Suggesting that NIH relate unambiguous mitigation under the guidance of a prepared forest or tree conservation plan, which has been promised by NIH for at least the last four years.

- That NCPC staff continues to believe the most appropriate course for National Historic Preservation Act review for NIH actions is the development of a Programmatic Agreement for the NIH campus.

National Historic Preservation Act

Commission staff commends NIH on its timely Section 106 consultation on projects submitted to NCPC for review and for its ongoing consultative relationship with the Maryland Historical Trust (the Maryland State Historic Preservation Office, MD SHPO). NIH has identified National Register-eligible resources on campus so that it can plan for their protection and appropriate use when considering new projects.

NIH completed Section 106 reviews of the Commercial Vehicle Inspection Facility and the Gateway Center with the MD SHPO in June 2004, and April 2004 respectively. The master plan was provided to the MD SHPO for review and comment in September 2004. The Inspection Facility was determined to have No Effect on historic properties. The Gateway Center was determined to have No Adverse Effect on adjacent or nearby historic properties.

NCPC also provided through the Maryland Office of Planning an opportunity for the MD SHPO to review the master plan initiatives. To date NIH and the MD SHPO have agreed that the following sites meet the criteria for listing in the National Register of Historic Places:

- The Historic Core
 - Building 1 Administration Building
 - Building 2 Office/Administration
 - Building 3 Office/Administration
 - Building 4 Research
 - Building 5 Research
 - Building 6 Research
- Building 7 Research
- Buildings 15B1-15G2, The Officers' Quarters 15H, and #15I
- Building 15K Wilson House (Tree Tops)
- Building 16/16A George Freeland Peter Estate (Stone House and Caretaker's Residence)
- Building 38 National Library of Medicine
- Building 60 Convent Building

Buildings that have been evaluated and that do not meet the criteria for listing in the National Register of Historic Places include:

- Building 8 Research
- Building 9 Research
- Building 10 Clinical Center
- Building 61 Caretaker's Cottage (Convent)

NIH acknowledges that cultural resource analysis will be necessary for individual undertakings to be submitted under Section 106 review. NIH will continue consultation with the MD SHPO on these and other cultural resource matters. Although a Programmatic Agreement and a Historic Resources Management Plan are goals to be considered for the future, it is not possible for NIH to fund or implement these documents at this time. Staff is satisfied that NIH will continue to submit its individual projects to the MD SHPO for Section 106 review.

The realization of the NIH Master Plan will necessitate new construction and site improvement, hence ground disturbance. The Plan assumes that any archeological resources present at a specific site would be adversely affected by construction at or near the undisturbed nature of the areas. Archeologically sensitive areas are identified in the master plan document. Future construction in these areas will require Phase I cultural surveys prior to design and construction in order to satisfy Section 106 criteria for determining archeological significance and potential eligibility for listing in the National Register of Historic Places. If Phase I surveys indicate that the areas contain materials of potential significance, then a Phase II survey will be completed. The scope of the Phase I survey is dictated by public law, which ensures that appropriate levels of survey evaluation and mitigation be pursued.

In the master planning process, efforts were made to avoid or minimize intrusion into archeologically sensitive areas. However, if a sensitive area were to be potentially affected, the site would be evaluated and recommendations for appropriate sampling, recovery of artifacts, or protection in place would be prepared. It is possible, but not probable, that an alternative building site would be chosen or construction delayed if the archeological site were determined to be of great importance. NIH anticipates that any required survey, evaluation, and mitigation work would be completed during the planning stages of individual building projects and therefore prior to the start of any construction.

Comprehensive Plan

The proposal is consistent with the Comprehensive Plan for the National Capital, except for compliance with the employee parking ratio now present in the Plan since August 2004. The Federal Facilities Element designates NIH as a research facility. No boundary changes are required in the facility and the campus adheres to the following goals of the Commission's 2004 requirements which include:

- Utilize available federally owned land or space before purchasing or leasing additional land or building space. Agencies should continuously monitor utilization rates of land and building space to ensure their efficient use.
- Consider the modernization, repair and rehabilitation of existing federally owned facilities for federal workplaces before developing new facilities.
- Establish the level of employment that can be accommodated on installations where more than one principal building, structure, or activity is located or proposed through the master planning process as established by the Commission.

Staff believes the commitment to the Transportation Management Plan (TMP) objectives of the Commission's Comprehensive Plan parking goals for federal facilities must be established given the increase in parking specified in the NIH master plan, which did not consider the new

Comprehensive Plan parking requirements. Staff notes, however, that the NIH master plan demonstrates one of the most comprehensive federal transportation management programs and that NIH's commitment to employee parking management serves as one of the best examples of transportation management in the National Capital area.

Federal Capital Improvements Program

The 2005-2010 FCIP was adopted September 9, 2004 and included many NIH master plan initiatives that were submitted to NCPC for FCIP program review. The review and indicated recommendation of the adopted FCIP analysis includes:

- Building 10 Transition Program
Recommended The total project cost is estimated to be \$70,000,000
- Physical Security Improvements
Recommended and Strongly Endorsed
The total project cost is estimated to be \$120,700,000; the project has received \$105,000,000 in prior funding.
- Building 31, Safety Improvements
Recommended \$13,300,000 (total project cost)
- Building 10 Renovation, Phase I
Recommended The total project cost is estimated to be \$345,200,000; the project has received no prior funding.
- Northwest Child Care Facility
Recommended The total project cost is estimated to be \$10,000,000; the project has received \$500,000 in prior funding.
- Central Vivarium/Animal Research Center
Recommended A total project cost is estimated to be \$210,800,000 to provide a multi-level central vivarium/animal research center.
- Building 10 Renovation, Phase II
Recommended \$298,300,000 total project cost for Phase II.
- South Quadrant Chiller
Recommended \$32,000,000 total project cost.
- Demolish Temporary Facilities 18/18t/32/32t
Recommended Total project cost \$19,100,000 for the design and demolition of the Building 18/18T/32/32T complex.
- Demolish Building 14/28 Complex
Recommended \$11,500,000 total project cost.
- Laboratory N, South Quad
Recommended \$116,300,000 total project cost
- Laboratory P, South Quad
Recommended \$135,000,000 total project cost
- Rehabilitation And Utility Upgrade, Building 1
Recommended \$21,500,000 total project cost for the rehabilitation of the heating, ventilation, air conditioning, electrical, plumbing, fire protection, life safety code, and accessibility code deficiencies in Building 1. This project will be sensitive to the character of this structure, which is eligible for listing in the National Register of Historic Places.

- South Quad Parking Facility
Recommended \$15,000,000 total project cost for design and construction of a below-grade, parking structure in the south quadrant of the Bethesda campus.
- West Campus Electrical Switching Station
Recommended \$9,400,000 estimated total project cost.
- Addition To NMR Center
Recommended \$3,800,000 estimated total project cost.
- Building 3, Renovation
Recommended \$14,700,000 total project cost. The building is eligible for listing in the National Register of Historic Places.
- Buildings 29a & 29b Renovation And Demolition Of Building 29
Recommended \$66,100,000 estimated total project cost.