MacDonough Hall
United States Naval Academy
Annapolis
Anne Arundel County
Maryland

HABS No. MD-329-3

HABS
MD,
2-ANNA,
65/3-

PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Architectural and Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HABS
MD,
2-ANNA,
6513-

HISTORIC AMERICAN BUILDINGS SURVEY

MACDONOUGH HALL — HABS No. MD-329-3
and
DAHLGREN HALL — HABS No. MD-329-4

Location: United States Naval Academy, Annapolis, Anne Arundel County, Maryland.

Present Owner: United States Government

Present Occupant and Use: U.S. Naval Academy - gynamsium (MacDonough Hall) and student center, ice rink, and cafeteria (Dahlgren Hall).

Significance: MacDonough and Dahlgren Halls are viturally identical buildings that flank Bancroft Hall. Although their uses have been changed from the original intent, both buildings remain largely intact. They were among the first of Ernest Flagg's buildings to be completed and, unlike several others in his Beaux-Arts complex, were built almost exactly as he had envisioned.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Dates of erection: The drawings from Flagg's office are dated 1898. The buildings were begun in 1900, and were occupied by 1903.

2. Architect: Ernest Flagg.

3. Builder, Contractor, Suppliers:

   a. P. S. Carlin and Company of Brooklyn, New York. (The official records of the Naval Academy state that the original contractor(s) is not known. However, according to the Proceedings of the Naval Institute for 1899, this firm was already at work by that time, and since these buildings were the first to be begun, we assume here that this firm was working on them. They may, on the other hand, have been engaged in the grading and filling operations only, or in some other unspecified capacity).

   b. 1940s renovations: McCloskey & Company of Philadelphia.

   c. Work on the galleries 1905, 1906 done by Penn Bridge Company, Beamer Falls, Pennsylvania.

4. Original Plans and construction: The buildings were designed to be identical, and nearly were, on the exterior, when first built. The southwest, southeast, and northeast elevations were identical, and very much as they appear today. The exterior walls of the buildings are unchanged, save for the accretions of additions which obscure certain parts of the long elevations (southwest and northeast) (see description of present condition of the fabric.) The original appearance may be best observed on the southwest elevation of Dahlgren, which has few intrusions, and contains original sash. The northwest elevations differed significantly, since MacDonough Hall was originally built to be the boat house, and the great arch on that end of the building was left open to the water of the boat basin.

MACDONOUGH HALL (like Dahlgren) was built according to an 8'4" module. Modules in the original plans are numbered from the center outward. Each bay occupied three modules, one-and-one-half on either side of the axis of the bay. The building was approximately 52 modules long by 14 wide, or about 425' by 110'. The building was designed to be the boat house for the Academy, with direct access to the water for launching and docking boats. The water entrance to the building was on the northwest end, from the formal basin which completed the fourth side (southeast) of the major quadrangle. The water entrance seems to have been open for the entire expanse of the great masonry arch between the towers. This is suggested in the Flagg drawings and in the rendering made by Haughton Hawley, but the earliest extant photograph of that elevation (which is probably a 1903 photo) shows the present curtain wall in place. The original plan was a longitudinal rectangle with northwest-southeast axis, with corner towers. The boat deck occupied all of the building, save for the southeast towers and the next two bays to the northwest. Between the towers on this floor was a "model room," two stories high. To the northeast were two rooms for recitation, and to the southwest was a single workshop. There were stairways and toilets in the southeast towers at this level. On the northwest the towers contained one small room each and smaller stairs. In each tower there was a small circular room in the corner nearest the long axis of the building and away from the mid point, serving as closets on this level, as spiral stairs above. The spine of the boat shed was occupied by a track for moving the boats to their storage tracks, which ran perpendicular to the long axis, a total of 19 on eqch side. There were ground-level entrances to the shed from the middle bay on either long side. The next level was the gallery level. On the southeast the arrangement of rooms remained much the same, except that the space on the southwest was divided into two rooms, and the model room was provided with a gallery. In the boat shed a gallery was built around all available walls, the details of which appear to have been identical to those of the Dahlgren (armory) balcony, which still exists. The plan differs, however, in that there was no direct access to this gallery, only through the tower stairs. An undated photograph in the Naval Academy Archives shows the

the interior as a gym with the floor on the boat-deck level. On the next level, the southeast end is taken up by a sail loft and two small tower rooms with the single small spiral stair. The towers are similarly treated on the northeast. The next level up contained the upper part of the sail loft, and four more tower rooms. Above that was one more floor of tower rooms, looking out over the roof of the shed through single slit windows, as today. There was one more level of tower rooms, with windows looking toward axis. For the two upper levels, the small spiral stair rose through the roof as a separate engaged turret, as today. (The above information based on prints of the 1898 Flagg drawings which are to be found in the Office of Public Works plan vault, Halligan Hall, the Naval Academy.)

5. Alterations and Additions, MacDonough Hall: The building did not long exist as a boat house, but was changed to a gymnasium in 1906. This work was also done by Flagg. (Blueprints, housed in the Office of Public Works plan vault, are undated and unnumbered.) The greatest changes were made on the northwest end, where the basin was filled, the arch filled with the present curtain wall, and glazing and rooms added in the two bays to the southwest of the towers. In the three bays to the southeast a pool was installed. The old stairs were removed, and a formal central stair was added. The space between the towers was occupied by lockers, with no partitioning. A steam room was added in the north tower. On the southeast, the rooms, which had by that time been designated as the "Seamanship Department," were left unchanged. The floor of the boathouse became the gymnasium. The gallery was altered so that both the gymnasium and the pool would have complete circuits of gallery; a running track was incorporated in the gym gallery. To the north and west corners of the gym gallery were stairs to the gym floor. (The above information is from the set of plans to be found at the Office of Public Works plan vault, Halligan Hall, the Naval Academy.)

The gym floor was raised to the level of the gallery c. 1942 and the gallery removed. There were guard rails along the windows of the new gym floor, which may have been re-used gallery railings. Squash courts were installed under the gym, at the old gym level, the former boat deck. A letter, dated June 26, 1941, in the Naval Academy Archives (Letters of the Superintendent, relating to buildings, MacDonough Hall: Box 6, folder 9) discusses problems of financing this work, for which plans had already been prepared by the "Technical Assistant to the officer in charge of buildings and grounds." General renovations were made in 1952, apparently by the Bureau of Yards and Docks, without any outside consultant. These were mostly upgrading of the existing fabric, and included the removal of the window guard rails for relocation in an unspecified place and the bricking up of the lower third of the gymnasium windows.

6. Original Plans and Construction, Dahlgren Hall: Dahlgren appears today substantially as it did originally. There was once a parquet floor on the main deck. (Seen in Photograph, 1906, p. 72, Edsall, The Place Called the Yard, (Teddy Roosevelt giving speech.))

7. Alterations and Additions, Dahlgren Hall: The original plans for the building do not show stairs at the southeast end of the gallery, as exist today. They do show a roof monitor along the central seven bays of the roof, which has been removed. The gallery is shown as the same width for the entire extent around the open armory floor, and was presumably extended toward the southeast into a lounge space during the 1974 renovations. The 1974 renovations were made by Ellerbe Architects, Inc., of Washington, D.C. (roll number 133 at the Office of Public Works plan vault, Halligan Hall, Naval Academy) and were otherwise limited to the installation of the skating rink, the addition of the cafeteria and kitchen, the northeast wall under the terrace, and the renovation of the lounge area below the northwest gallery to a cafeteria dining room. No significant partitions were removed, and the gallery was left intact, with some strengthening of the structure with additional steel. The original sash remains. The entrance doors of the center of the long sides (originally paneled oak with segmental arch transoms, were changed to flush doors. Small display cases with granite keystones and sills at the entry were originally grills and were possibly used as ticket windows.

B. Historical Context:

These two structures are components of the southeastern side of Flagg's grand scheme for the rebuilding of the U.S. Naval Academy. They were the first buildings to be completed in Flagg's scheme. Flagg expressed his satisfaction with their final form, which was very close to his original conception in terms of quality of materials. He attributed this to the early letting of contracts, and used the example as an instructive contrast in other Academy buildings (especially the Chapel) which suffered from economic considerations. While Flagg disapproved of the need to convert the boathouse (MacDonough Hall) into a gymnasium, he grudgingly allowed that the transition was a success. Aside from that major, and very early, transition these are among the least altered buildings on the Yard. MacDonough is named for Captain Thomas MacDonough, known for his victory on Lake Champlain in 1814. Dahlgren is named for Rear Admiral John Adolphus Dahlgren, a scientist and ordnance expert, who was Commander of the Naval Blockade of the southern Atlantic during the Civil War.

PART II. ARCHITECTURAL INFORMATION

A. General Statement

1. Architectural Character: MacDonough Hall (the boat house and later the gymnasium), and Dahlgren Hall (The armory and later the student activity center) were part of the complex of structures which were

oriented to the non-academic aspects of the midshipman's daily life, with the centerpiece of Bancroft Hall. Flagg was particularly pleased with the idea of the central living quarters being flanked by the building devoted to seamanship and sailing on its water side, and by the correponding building devoted to military training on the landward side. He was also particularly pleased that these buildings were let for contracts soon after their design was complete, so that they could be built according to his original specifications. This delight was short-lived, however, when the Naval accountants declared that the boat house would be better used as a gymnasium. Flagg reluctantly made plans for the necessary changes, but confessed that while some iconographic significance had been lost, the athletic facilities were everything that they should be in an institution of this kind.

The layout of the MacDonough, Bancroft, Dahlgren complexes is typical of Flagg's Beaux-Arts concept for the Academy. In detail, MacDonough and Dahlgren contrast sharply to Bancroft Hall, being of a much more gross scale, with large, simple parts and less finely articulated details. The scale of the buildings is massive, inside and out. The inner spaces were built to be, and remain, impressive.

2. Condition of Fabric: In general, well maintained. The cafeteria space in Dahlgren Hall, However, is inappropriate to the original fabric.

B. Description of the Exterior:

1. Overall dimensions: The buildings are long rectangles in plan, with a southeast-northwest axis, with slightly offset corner towers. The overall dimensions are approximately 425' x 110'. The long elevations (northeast and southwest) consist of fifteen 25' bays between the corner towers. The end elevations are one huge bay between the corner towers. A small basement story is defined by a belt course around the towers and the long elevations, with one tall story above. The central arches of the northeast and southwest facades are one colossal story. Walls are about 76' high to the top of the tower parapets, and to the peak of the main roof (excluding monitor), and about 50' to the top of the long walls.

2. Foundations: Both buildings are built on pilings. MacDonough Hall, having been intended to be partly open to the water, has sigificantly more pilings in its foundations (at least as is apparent from the plans of the building on file at the Office of Public Works). The walls rise from concrete footings, (10' wide at the base at their widest, under the corner towers) stepped up to about 6' wide. Footings at the base of the long sides are 8'; and taper to about three feet. Each footing along the long side was separate, rectangular in plan, and about 16' long. Footings are connected below grade by segmental relieving arches.

3. Walls: The exterior walls are entirely of granite. Walls in general are rusticated and roughly dressed, but water tables, belt courses, cornices, keystones and other ornamental features, alternating courses in the towers, and the spandrels of the great arches, are finely finished ashlar. The ground is slightly higher on the Dahlgren side of the complex, so that in order for the buildings to have the same height, more of the basement story of Dahlgren is below grade than that of MacDonough. In addition, some of the lower level windows (on the north corner) are built into granite area-ways, and the space between the water table and the first story string course is much smaller. There are carved granite cartouches of the Naval Academy seal and the United States shield below the cornice at the towers. The keystones of the great arches have lions heads. Dahlgren has basement level entrances (main floor) in segmental arches within pedimented aediculae centered on the long sides. The remaining parts of the basement elevations are unbroken rusticated stone. In MacDonough Hall, the basements are obscured from the SE tower bay to the 5th NW bay on the southwest elevation, and from the 3rd SE bay to the NW tower bay on the northeast. The peak of the pediment of the former northeast wall central entrance is visible above the gravel roof of the adjoining building. In Dahlgren Hall, the basement is obscured only in the 2nd bay from the northwest end of the southwest wall, by a small passage connecting with a neighboring building.

4. Structural system: Masonry bearing wall, brick with exterior facing of granite. The two major interior walls of MacDonough Hall are reinforced concrete frame with brick infill. Floors and galleries are carried on steel. The roof is supported by a series of steel trusses which are anchored at the side walls in granite corbels.

5. Doors and Windows: The great arches of the southeast and northwest elevations are filled with curtain walls of industrial sash in a matrix of steel beams with rosettes, with some carved wooden infill decoration. The northwest arch of MacDonough Hall is more complex than the others, having a central aedicule of fixed sash flanked by entrance doors, with tall thin round arched frames of glazing above, all of industrial sash type framing; some of the tall panes pivot centrally. Some of the smaller subdivisions are hinged on the side. In the remaining arches, each major subdivision of the curtain wall has a central pane which opens. The major windows of the buildings are all small-pane, triple-hung sash of wood under fixed sash of radial panes in the arch, except along the southeast wall of MacDonough Hall, where the windows have been shortened and the lower sash removed.

6. Roof: Both buildings have pitched roofs with the ridges running along the long axis, covered with standing-seam metal. MacDonough Hall has, in addition, a peaked-roofed, glazed monitor over the central bays. The tower roofs are pyramidal, covered in copper. Stone-faced exteriors of the spiral stair towers extend above the roof at the north and east corners.

C. Description of Interior:

1. Dahlgren Hall

Access is through five pairs of glazed oak doors at ground level in the NW facade, spanning the base of the archway between the two towers of that elevation. The doors give onto a short vestibule which leads to centrally descending stairs flanked by ascending flights. The descending stairs lead to the lower, principal level of the interior space, which is for the most part open to the roof. At this end, however, the modern cafeteria seating area occupies the space below the mezzanine of the gallery level, which is gained by the ascending flight. At either side of the stairs at the lower level is a large room at the base of each tower, with double oak-five-panel-doors under a glazed segmental-arch transom. The cafeteria opens directly into the major "armory" space, which is presently taken up almost entirely by an ice rink, with a basketball court at the SE end. The bays of the gallery level are also divisions of the lower level, each bay marked with a segmental arch with brick stretcher bond voussoirs with granite keystone and imposts. On the NE wall, the first and second bays (counting from the NW) give access to the cafeteria serving rooms and kitchens, beneath the terrace. The third contains glazed oak double doors with sidelights and transom, leading to the exterior. The fifth bay has modern oak double doors leading to the mechanical rooms of the ice rink. The seventh, the central bay of the long elevations, contains double oak paneled doors within a brick infill of the arch. The thirteenth bay has two sets of double oak doors which fill the arch. The fourteenth bay has a segmental arched double-hung wooden sash window. All other bays are blank, filled in with brick. The SW elevation is comparable, except for the second, third, and fifth bays, which are all blank. The first bay has oak double doors connecting with the adjacent building. The flooring is concrete, covered variously by carpeting, skating rink, wooden table platforms, parquet dance floor, and a polyurethane coating for the basketball court.

The mezzanine looks over the skating rink and leads to the gallery which surrounds the rest of the building on this level. The space is completely open at this level and above, except in the southeast corner towers, and in the northwest towers--plus one-bay, likewise subdivided into two stacks of rooms. Each of these pairs is set off from the major space by a great brick arch with granite keystones and impost.

Windows on the gallery/mezzanine level are three-part, triple-hung sash 12/8/12, flanked by 6/4/6 each under a radial-pane fan-light. The wooden sash is painted. The sills are granite, and the multiple-brick course voussoirs (in stretcher bond) are separated by granite keystones and springers, smaller versions of the two great end-arches. The northeast entrance, which opens onto the terrace to Bancroft Hall,

is set in a similar opening; a double-glazed oak door with transom and sidelights under a pediment, set within a fan light similar to those of the windows. The southwest entrance has been largely bricked in, except for modern double doors and the fanlight, which remains in place. The tower rooms on this floor are: N - down three steps from the mezzanine level, a renovated memorial room, and in the tower proper, a staircase (square plan) comparable in detail to the entrance stairs, but with slate treads and landings, and a closet in the small circular space which holds spiral stairs in both southeast towers; W - also down three steps to two renovated rooms, one a picture gallery, the other an office; S - single office in the tower proper; E - ladies room, with spiral iron stair. There are single rooms in each tower for more levels. The stair of the S tower does not ascend to the uppermost room. Access is across the roof which connects the tower from the west tower stair. There is a gallery spanning the gap between the two towers along the next level above the mezzanine/gallery level, with typical oak and iron railings.

On the uppermost level of the southeast end (except for the final rooms of each tower) there is one room in each tower, connected by a long room, five steps up, spanning over the arch, with three open arches with iron railings looking to the northwest over the open space of the building. The long room has a central skylight. The ceiling is all on one level. There is no significant woodwork. There is a large heating/air-conditioning duct running through the southwest half of this composite room.

There are single rooms in the towers above these, with mechanical equipment in each.

On the northwest end, the next level above the gallery is also spanned by another gallery, this time U-shaped, giving access to the southeast rooms in each roomstack, through double five-panel oak doors under blank transoms. Rooms above this are divided as the original plans show, and are used for storage or utilities.

The columns, brackets, and rails of the various galleries are of cast and wrought iron, with oak handrails. The entrance steps are pale pink marble. The major entrance aedicule is cast iron. All doors and windows are oak, presumably including those few which are painted over. The walls of the major space are of yellow brick, set in Flemish bond, with very deep joints. The roof trusses are steel, and rest on granite corbels. The glazed arches at the end walls are cast-iron channels with brick infill, with iron muntins.

There is access from the galleries to the lower main level via a double flight of iron stairs at each flank near the southeast end. These have oak handrails and are simple and consistent with, but not identical to, the gallery railings.

The steel roof trusses carry an interior facing of tongue and groove boards, set parallel to axis, which are stained dark and sealed with a shellac or varnish.

2. MacDonough Hall

MacDonough Hall is, on the interior, comparable to Dahlgren Hall, being composed of large central spaced between the two corner-tower stacks of rooms at either end of the long axis. There are six divisions along the length of the building, separated by the great yellow brick arches which span the entire building like those found at Dahlgren Hall. They are all of comparable size and composition, the opening being the width of the space between the corner towers with three small round arches above the great arch, go with walls of yellow brick in Flemish bond, and massive granite (grey) cornerstones and impost blocks.

The major divisions of the building are four: The tower-plus-two bays at each end, which contain the tower-spanning arch and the first glazed arch on the NW, and the tower arch and the filled-in arch on the SE; the swimming pool at the next space to the NW; and the gymnasium in the remaining space.

The NW tower division is entered from ground level by either of two glazed double doors adjacent to the inner walls of the tower. The spaces SE of the doors are closed by partitions and doors. The rest of the space is a lobby with trophy cases and a terra-cotta tile floor, and with two parallel flights of steps leading upward forward the SE to a landing which gives access to the pool-deck via three sets of double glazed-oak doors, thence rising centrally NW-ward to the gymnasium level. There is a pass-through beneath the landing. The steps are iron, with large iron pipe railings, and vinyl-tile treads and risers. On the flanking walls are (SW) two segmental arches, the first (first, second, third, etc., will always be counted from NW to SE in this section) containing double oak-paneled doors with a transom, leading to a locker room; the second is an open pass-through to the square-plan stair which descends from the terrace entrance (see below) and to passages leading to locker rooms in the adjacent natatorium. On the NE side, the first bay is another segmental door leading to lockers, the second is a small rectangular oak door (one of the few squared openings in the building) to an office. There are rooms in the towers at this level. The ceiling of the lobby is supported by four centrally located iron columns with stylized capitals. The stair landing is also supported by four columns, in a row beneath the NW edge. These columns are square sectioned and also have stylized capitals.

The next level is reached via the central flight of stairs, and consists of an irregular lobby, with much of the space comparable to that below being subdivided by frame partitions with some transom lights. The tower, plus two rooms of the NE side, are further subdivided. On the SW, there is a tower room and a first bay room. The second bay is occupied by the terrace entrance and a square-plan winding stair which connects with the lower floor

and with the fencing loft above. The terrace entrance is through large oak doors with sidelights in a classical oak surround. There is a brick wall to the NE of this space, closing off the two stories of stair. The four central columns of the ground story also appear on this level, similarly stylized. There are doors to the gallery of the swimming pool from both the office space and the entry/stair space.

The next level up can be reached only from the above mentioned stairs. The spirals which are found in the corner towers of both Dahlgren and MacDonough do not descend below the next level, being sealed with concrete flooring in the North tower, and blocked with debris in the West tower. This next level is the fencing loft, which spans the building from NE to SW and between the towers. The fencing loft is open to the roof. The tower rooms are used as locker rooms. The spiral stairs lead upward for two more levels, to rooms which overlook the space between the towers through segmental openings with small-pane sash, and above that to two more usable rooms with a long connecting room, several steps up and open to the tower rooms, spanning the building above the great arch. This is partly used at present as a target range. The small triple-arched openings of the interior arch wall have been sealed with frame partitions, but are not bricked closed. The spiral stair of the west tower continues to the roof, and to access to the small rooms atop the towers, which are not finished and are used primarily for storage or for ventilation equipment.

The south tower is occupied by a square-plan winding stair with an elevator cage (steel) in the center, rising from ground to loft level. The elevator car is permanently stalled at the loft level. Otherwise, the arrangement at the SE end of the building is virtually the same; a mirror image. The fencing loft becomes the wrestling loft, and the tower rooms are on the same level as the major room. The east spiral stair leads to the roof and to two additional tower rooms. The gym level is occupied by the boxing room, with the four iron columns, this time with Corinthian capitals. The ring is strung between the columns. On the NE side is a series of training/treatment rooms, with access through three segmental-arched, paneled oak doors. On the SW, the first room is an office, the next two rooms have been combined to make a lecture room, with seating-risers, highest on the SE, with similar door to the rooms of the NE. The lowest level is open in the space between the towers in a space comparable to the lobby of the NW end, again with columns.

The pool section is three bays long, with windows at the gallery level in each bay, save the NW most of the NE wall, which has a door like that connecting with the terrace, painted white. The pool deck is on a level mid-way between the gym and ground levels, and is covered with beige ceramic tile. The tank of the pool rests on the ground, and is covered in more ceramic tile. There are

spaces on the NE, NW, and SW sides of the tank, containing (respectively) storage, pool mechanicals, and passage to locker rooms in the Scott natatorium and to the below-gym level. The pool has a circumferential gallery at the gymnasium level, which opens onto both gym and NW office lobby, through doors at the NE and SW ends of the arch-walls. The rest of the space is open to the roof.

The gymnasium portion of the building is entirely open above the gym floor. The arch on the SE wall leads down several wide steps to the boxing floor, and is flanked by small frame rooms which have been built onto the gym floor. There are pairs of stairs descending toward axis at both ends of the gymnasium, leading to the long open hall beneath, with squash and raquetball courts lining both sides.

The roof over the pool and gym has a central glazed monitor. Suspended below this are catwalks which stretch between the first interior arch walls. Access is through the central small arch of the SE arch wall, through the center of the next wall. The catwalk then splits into two with a short double ladder, and runs along each side of the monitor, through the walls in small square openings, until it butts the NE arch wall. The catwalk does not pass through the latter wall.

As at Dahlgren, all of MacDonough's interior woodwork, fenestration, and doors are oak. The windows of the long elevations are arched, with triple-hung sash in small panes on the NE wall and double-hung sash on the SW, with the space of the lower sash now filled in with yellow brick. The fanlights above have radial muntins, except in the two bays at each end, on both elevations, where they have orthogonally arranged small panes. These long walls are yellow brick laid in Flemish bond, like the arch walls, with very deeply incised joints between the courses. The trusses and wooden interior roofing are painted white.

Sources:

1. Original and Unpublished Sources

A. Architectural Drawings, Plans, Engineering Drawings, Etc.

A note on the Y & D Drawings: The drawings executed Plan Vault of the Public Works Office of the Naval Academy, Halligan Hall, Annapolis. This is the best single source for documenting individual building histories. There is a card-file index by building which gives primary access to the drawings, which are stored in numbered rolls. It may not be possible to locate a specific drawing by its Y & D number without first consulting these cards. There are many additional drawings which are filed in drawers and other plan-containers by name of building or type/use, with reference through the labels on the front of the drawers. These must be leafed-through. In short, a knowledgeable representative of the Public Works Division is probably essential to the use of these drawings.

Some attempt is being made to coordinate this collection with the Archives of the Academy, at Nimitz Library.

Many drawings were consulted in the preparation of this document. Lack of reference number generally means that one was lacking from the drawing. They can be retrieved via the file cards, with reference to the particular date or phase of the building's history.

Some drawings are described below; others are noted in the text in the appropriate locations, identified as precisely as possible. Still others (a vast number) were examined, and general impressions taken from them, but are not used here as specific references:

Rehabilitated copies of Ernest Flagg's drawings for the Armory (Dahlgren Hall) (n.b., a complete set of reductions is available at the Special Collections Division of Nimitz Library, the Naval Academy, Annapolis; these are a selection from the full scale copies available at the Plan Vault of the Public Works).

2627: foundation and piling plans. Apparently schematic rather than a working drawing.

2641: elevation (NE) including wall modulation, window details, door details, all substantially as built. Footings below grade are shown in elevation with dashed lines.

2634: longitudinal section, also from the northeast; fenestration, door, galllery, stair and monitor details as originally built; footings and pilings in dashed lines.

Naval Academy Archives, Nimitz Library, Annapolis: Many of the older Flagg drawings have already been removed to the Archives. Very few have been catalogued by number. Rather, most items are easily retrievable by name of building and type of document, in this case plans and drawings. In particular, a very complete set of plans of the grounds of the Academy, from 1845 period onward, are available within a single collection. Ultimately, all the original Flagg drawings or copies of known Flagg drawings will be located here. At present, the set is more or less supplementary to the Public Works/Yards and Docks drawings at Halligan Hall.

Special Collections Department, Nimitz Library. Naval Academy, Annapolis. A limited number of drawings are available here. No plans per se were found to be useful.

B. Views, Photographs

Archives (same as above). The photographic collection is excellent, but individual photographs are not given catalogue numbers and it is not possible to make specific reference. Photographs are filed by building name. Some appear to be mislabled, although that is rare. One is particular is labeled "Bancroft Hall," but is probably a photograph of the construction of the brick base for the great northeast arch of MacDonough Hall, c. 1900, and is one of the very few photographs of actual initial construction discovered.

United States Naval Academy Museum contains many well-known early photographs, most of them well-known, and/or published, including a photograph of the concrete structure of the Chapel.

Special Collections, Nimitz Library

Numerous photographs, mostly of activities rather than of specific buildings so that architectural information gained is likely to be fortuitous. One small collection, the Admiral Strange Album, contains very poor snapshots, mostly of the experimental station across the Severn River from the Academy, but includes one photograph of the concrete shell of the chapel under construction. The Special Collections also contain a collection of Dahlgren Hall drawings, reduced and bound. The original Flagg blueprints were rehabilitated and restored. The reductions were bound with some photographs of the process.

Houghton Hawley (spelling uncertain) views, 1899

Available mounted on cardboard or in a printed folio at the Archives. These views are renderings from a bird's eye perspective of Flagg's final concept for the rebuilding of the Academy. According to Flagg's own account, this set of drawings seems to best exemplify his optimum plan. The relationship between the present Academy and this intention are readily apparent in this plan, although the differences in the buildings as they were constructed are often striking. All buildings are represented in some form, from Bancroft Hall very much as built, through the first stages of the Chapel, to the much more elaborate conceptions for the academic buildings, now the Mahan complex. The conception for the boat basin and its relationship to the present MacDonough Hall is very clear. Several individual buildings are represented in the drawings, including the Memorial Hall rooms of Bancroft Hall and the Chapel.

Miscellaneous

The Archives is at present (December 1980) in process of taking custody of several miscellaneous drawings and sketches, including a color rendering for a stained glass window in Bancroft Hall and a sketch for one of the pylons to be placed at the ends of the seawalls of the boat basin, with a fully rigged mast atop, the only such conception encountered in this study.

C. Documents

The Archives of the Naval Academy at Nimitz Library contains numerous documents relating to specific building, by which they are filed. This consists almost entirely of superintendent's correspondence, and has been of limited usefulness.

Published Sources

The NAVAL INSTITUTE, Proceedings of; indexed and available at the Special Collections Department of Nimitz Library, The Naval Academy, Annapolis. There are a few articles which deal with the buildings and grounds.

Edsall, M. H., A Place Called the Yard, 1978, the Douglas W. Edsall Company, Annapolis, Maryland. A very useful walking tour of the Academy with many specific references to the details of the buildings, and a very fine overview of life at the Academy. The book is well illustrated.

Sweetman, Jack, The U.S. Naval Academy, an Illustrated History; the Naval Institute Press, Annapolis, 1979. An excellent, comprehensive, and scholarly history of the Academy as an institution. There are some useful references to buildings, but the greatest value here is in the explication of the details, politics and other machinations involved in bringing about the "new" Naval Academy.

Flagg, Ernest, "New Buildings for the U.S. Naval Academy, Annapolis, Maryland," in The American Architect and Building News, in two parts: Vol. XCIV, No. 1697, July 1, 1908; and No. 1698, July 8, 1908. Much information of the original and subsequently thwarted intention of the architect. There are no better published photographs from any era of the academy's history than those presented here. Several excellent detailed drawings of plans, sections, and elevations are also included. This is single best source for documenting the early Flagg work, regardless of the extensive editorializing.

Likely Sources Not Yet Investigated

National Archives and Record Service, GSA, Washington, D.C.: The major body of material which was left unexamined but seems to have some potential for filling in a few details is here. Sufficient material was available at the Academy and in Annapolis to answer the relevant questions raised by this study, and time did not permit a visit to the National Archives. Specifically, three collections are of interest:

Relating to Buildings and Grounds
1858-1910

115. LETTERS SENT AND RECEIVED AND CONTRACTS FOR CONSTRUCTION AND GRADING WORK AT THE ACADEMY. June 1858-June 1860. 1 vol. (No. 675) 1 in.
Arranged chronologically. A table of contents is in back of the volume.
Fair copies of letters and contracts relating to the erection or repair of buildings, grading of grounds, and supply of materials for the Academy. Included are numerous drawings and scale plans of buildings to be constructed.

116. PRESS COPIES OF LETTERS SENT BY THE SUPERINTENDENT RELATING TO THE PROPOSED REBUILDING OF THE ACADEMY. Mar. 1895-May 1899. 1 vol. (No. 503). 1 in.
Arranged chronologically. No index.

Letters relating to the proposal to erect new buildings at the Academy. A commission to study the condition of Academy buildings was appointed by the Secretary of the Navy in conformity with a resolution adopted by the Board of Visitors in 1895. A copy of the report of the Board, January 1896, citing the poor condition of the existing buildings is included.

117. PRESS COPIES OF LETTERS SENT BY THE SUPERINTENDENT RELATING TO BUILDINGS AND GROUNDS. Dec. 1902-Mar. 1910. 23 vols. (Nos. 460-482). 3 ft.
Arranged chronologically. A name index is in volume 460 and a very incomplete name index is in volume 461. No indexes in other volumes.
Include some copies of letters sent by the officer in charge of buildings and grounds, however they are not duplicated in entry 181. Letters sent by the Superintendent after March 11, 1910, are copied in his letterpress books, described in entry 3. Letters sent by the Superintendent to the Bureau of Navigation (Jan. 1905-May 1907) relating to buildings and grounds are contained in entry 17.

PART IV. PROJECT INFORMATION

This work was produced by John D. Hnedak, Architectural Historian, Annapolis, Maryland, as consultant to the National Architecture and Engineering Record, with the assistance of Janet Davis, Architectural Historian, Baltimore, Maryland. We gratefully acknowledge the generous assistance of Mrs. Price of the Naval Academy Archives, Nimitz Hall, and her staff; of Mr. E. B. Miles of the Office of Public Works, Naval Academy and of the staff who work with him in the Office of Real Estate, the Plan Vault and the Duplicating Room; and of Captain Gaworkowitz at the Office of Public Works.