

DOCUMENT RESUME

ED 047 171

AA 000 664

TITLE Preliminary Educational Specifications for the First Facility Fort Lincoln New Town Education System.

INSTITUTION General Learning Corp., Washington, D.C.

SPONS AGENCY District of Columbia Public Schools, Washington, D.C.

PUB DATE 22 Apr 69

NOTE 32p.

EDRS PRICE MF-\$0.65 HC-\$3.29

DESCRIPTORS Community Development, \*Educational Facilities, \*Elementary Schools, \*Facility Guidelines, Facility Requirements, \*School Planning, \*Urban Renewal

IDENTIFIERS \*Fort Lincoln New Town (FLNT)

ABSTRACT

These specifications are planned as guidelines for architects to design an educational facility that will be relevant to the needs of the Fort Lincoln community. It is important to understand that this document and architectural plans for the facility do coexist, and that the criteria presented here has played an important role in the actual design for the facility. These specifications contain general design considerations, sketches, square footage estimates, and specific design considerations for each stage of administrative/community facilities and supportive areas. An appendix contains guidelines, building design, and land usage from Fort Lincoln New Town Urban Renewal Plan. (For related documents see ED 047 171 through ED 047 188.) (ON)

PRELIMINARY EDUCATIONAL SPECIFICATIONS  
FOR THE FIRST FACILITY  
FORT LINCOLN NEW TOWN

April 22, 1969

## INTRODUCTION

### I

The Educational Services Division of General Learning Corporation has contracted with the District of Columbia Public School System to do a year-long planning effort for the Fort Lincoln New Town educational program. In this effort, General Learning will be working within some guidelines: the general plan for the whole project, taken from the Logue report, and the responsibilities mandated by our contract: to "design a system that's unique and relevant to the needs of the Fort Lincoln community".

The evolution of this document has paralleled that of the architectural plans for the first facility to be built at the Fort Lincoln site. The architectural office of Fry & Welch has already seen and reacted to the considerations presented here, and is designing a facility that reflects the thinking set down in this report. Therefore, it is important to note that although this document and the architectural plans coexist, these initial criteria did play an important role in the actual design of the facility.

A further word should be added concerning the planning for the Fort Lincoln educational program: it is a cooperative effort with the community people for whom it is ultimately intended. In other words, this is a working document. It is presented for evaluation by the community and the inter-agency staff committee and its authors welcome their contributions to it.

Samuel M. Busselle  
Facilities Plan  
April 22, 1969

## EDUCATIONAL PERFORMANCE REQUIREMENTS

### II

One of the most important features of an educational program is its suitability for a variety of age groups. The monolithic, "lock step" approach of the last century or so caters to a mythical "average" pupil, and therefore caters to no individual in particular. For the purposes of pre-planning, General Learning has broken school-age children down into four major stages and charted the general characteristics and educational priorities for each group. These characteristics will overlap depending on the maturity and interests of individual pupils, and their progress will vary with individual pupil performance as determined by both parents and the teacher. Such a breakdown does aid the planner in formulating initial facility ideas.

#### STAGE I - Three to five years of age

- A large degree of freedom to move about the school or the area of the school designated for pre-school activity will be provided because: the need to explore and a high level of physical activity are characteristics of this age; the child has limited ability to defer present satisfactions for the attainment of future goals; and the child may be frightened or threatened by the novelty of school.
- Directions and guidance from adults, which a child looks for at this age, should be consistent with his capacity to respond and with his attention span.
- The environment should be rich in variety, color, and content, and should be chosen and arranged to make it probable that the child's natural interests and inclinations will lead to the development of intellectual and academic abilities.
- Objects and materials in the environment should be changed or rotated according to the interests and the physical and emotional development of the children. For instance: objects not used should be removed; materials related to seasons or other events occurring in the children's world should be added.
- Formal instructional materials (such as teaching machines) should be included as another activity alternative.

- Adults and older children will be present acting-as models of behavior, engaged in formal and informal learning activities, performing the same kinds of activities that the pre-school child will be encouraged to perform, and answering questions and providing instruction and materials in response to expressed interest.

The activities described above should concentrate on opportunities to engage the child in developmental activities such as: vocabulary development, discrimination, verbal chaining (song, rhyme, games) and group sound games and physical games.

The teacher should develop a perceptual and medical profile and observe and classify the child's self-chosen activities.

The child must come away from his early educational experiences with enthusiasm and a positive inclination.

#### STAGE II - Five to seven years of age

- The environment for these children should be more structured than in the previous stage because a child in this age group will be developing a capability for delaying some of his immediate needs.
- Since the child is to be introduced to more formal instruction, projective and achievement testing should be administered.
- Formal group and individual work will be introduced for periods of ten to twenty minutes.
- Experiences should be designated to increase persistence and attention as well as promoting responsibility, cooperation and independence (i. e., joint projects, specific individual tasks).

At this stage the development of a child's reading skill and comprehension should receive top priority. He should develop his ability in concept formation using machines, puzzles and games as well as heightening his discrimination of affective dimensions (for instance, an audio-visual presentation followed by the question: "Which man made the boy feel better?")

Arts and crafts activities will include beginning instruction in the use of tools and other skills that are used in entry level jobs, but the emphasis will be on the academic and aesthetic aspects. Inasmuch as reading is to be stressed, the arithmetic non-formal counting and numerical activities should be integrated with reading exercises.

### STAGE III - Seven to nine years of age

- At this level instructional materials of all types should be assigned for specific lessons. For example: games requiring reading performance; activities which take children around the room or school; direct experiences with objects and materials (sorting, classifying, building, counting, coloring, drawing, etc.) All of these activities will be directly concerned with achieving will-defined instructional objectives.
- Teacher-led discussion groups will be initiated for presentations and discussion.

Priorities, again, should be established to encourage reading; concept formation (including number and science concepts); psycho-motor skills related to work and art (soldering, drafting, etc.); and beginning process skills (keeping records, drawing graphs, etc.); in a descending order of emphasis, social and maturational skills should be introduced (take direction; work alone; work with others; care for supplies and equipment; beginning examination of value formation; decision-making, and the nature of consequences).

### STAGE IV - Nine to twelve years of age

- As the individual is paced for different learning activities, he will be assigned reading, writing, listening, lecturing, discussion, construction activities - both alone and in groups.
- Independent self-chosen work should be tailored to the interests and ability of the child according to pre-determined criteria.
- Individual and group work with machines (tape recorders, typewriters, cameras, video tape recorders, projectors) should be treated as common day-to-day activities, as should work with technical drafting, graphic and photographic equipment.

Arithmetic and other mathematical disciplines should be stressed at this stage-developing a numerical sense and concepts of probability and statistics.

The next priority should be creative self-expression (speaking, writing, drawing) vocational-academic talent (i.e., the relationships of electronics to science) should be developed, as should elementary principles, relationships and rules (using science demonstrations and experiences). As the student matures, the educational program should encourage self-direction according to teacher initiated program prescriptions and close surveillance.

With this breakout of age level characteristics or Educational Performance Requirements in mind, we can go on to list some general considerations. Thereafter, in the section titled Educational Specifications, we can examine the four stages more closely. Following the Stage specifications are sections on the administration-community facility and supportive areas as well as a square footage summary.

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## III

In the current educational jargon the term "flexibility" is one of the most used and abused. Flexible scheduling! flexible student movement! flexible partitions! flexible spaces! It seems that an answer to any educational crisis is to make everything more flexible. This situation is an understandable overreaction to the kind of rigid program that we have been exposed to in the past decades, which lock teachers and students into tracks, curriculum levels, specific local schools, classrooms, homerooms, and an eight month school year. However, flexibility is not the be-all, end-all in modern education. Flexibility means nothing unless it is planned around a distinct philosophy of education which is compatible with the term.

In Dr. Milton Young's recommendation for "a new and relevant system of education" for Fort Lincoln, he has redefined the process of education. I quote from a paper by him entitled "What Education in Large Cities Will Look Like in the Near Future": "The results of the continued influence of the past has produced schools which operate to produce an individual with skills which are the antithesis of those he will need as an adult of the future. --Rather than independent behavior it fosters conformity. --Rather than stress the unity of knowledge it arbitrarily divides and fragments content. --Rather than use new and creative approaches to teach children who are not quick and facile in learning, it continues to fail and perhaps injure significant portions of these students. --Rather than create a stimulating learning environment which confronts children with opportunities for critical thinking, problem solving, and creative behavior, it provides ready made solutions to problems. --Rather than face the reality of the uniqueness of children who need programs geared to their individual differences, it is usually organized in lock step, graded systems comparing and viewing them as if they were alike. --Rather than use modern technology it builds the same fixed wall classrooms that have existed for 100 years effectively inhibiting every minor organizational change." These are indeed some accurate and perceptive observations on the shortcomings of the current educational process. Dr. Young goes on to suggest some general solutions to improve such a predicament. Some examples: "There will be no grade levels differentiation between pre-school, elementary, junior, senior high and college. The entire community educational system will see and be seen as a single entity. Educational programs will be continuous through the day and throughout the year. Although there are, obviously, major roadways, each individual will have his own track or path through the educational system. Since the general health of the community has more to do with the success of the individual than today's schools, education in the future, rather than being isolated, will be planned so that it deals with the student's total environment. School buildings as they now operate will be only one of the major centers for learning..." These general suggestions implying a much more "flexible" program cannot be very effective unless more specific interpretations are immediately considered. We recognize that the administration of our current schools is complex. In trying to imagine the administration of the most flexible program which Dr. Young recommends, we recognize that tremendous

efforts must be made to effect such flexibility. Dr. Young has, in a first phase of his Fort Lincoln recommendation, outlined in more specific terms how such a program might be structured. And in phase II which exists currently as a proposal, he has made suggestions as to how such a program might be realized.

My reason for discussing this innovative program for education is not to cast doubts on its practicability or question the process for realization, it is to point out that "flexibility" requires the most extraordinary amount of planning. One cannot outline such a general system which rejects the current structure without considering the vast amount of experience which went into the old and the amount of specificity needed for the new. In the same way that flexibility must be carefully specified for a new system of education, it also must be carefully specified for the educational facilities of a new system of education. Some mention has been made of "total flexibility" in the facilities design. Total flexibility implies a large loft space with few columns and a versatile lighting system. This approach is naive. It is true that we must reject traditional solutions to space facilities planning in the educational environment. We reject the traditional classroom layout with the rigid plan of a teacher's desk at the front and 25 to 35 desks for students. We even reject the idea of a school-house! Instead we must analyze the activities that are implied by the new system, examine their requirements, and produce educational performance requirements which will support it. To give an example, consider the "Early Childhood Learning Center" as specified in Dr. Young's recommendation. There is no indication that a prototype design exists which considers his unique requirements.

A loft space, with high ceilings, keeps the elements out but provides a very rugged and impersonal space. Obviously one is not going to use it without refinements, but how do we get such direction? We must call upon a most imaginative and diverse team of experts in order to identify the educational performance requirements for "Early Childhood Learning Center". Perhaps such experts will suggest a multi-level space, scaled to the size of a small child (and not to an adult!), with ladders and niches where a child can explore a working environment. Or perhaps they will suggest versatile modular sections which can make any residential apartment into an environment for learning. There are countless ideas; but we must obtain a creative analysis of the environmental implications of this new system before any recommendations can be made for a physical solution.

This discussion is one example of the amount of work which must go into a new design. Flexibility is not what we are after if this implies general undefined space, or if it implies a traditional use of space. We must develop a creative analysis of specific educational performance requirements for different learning centers and learning activities before we can come to such conclusions. We must make some innovative environmental design discoveries to stand up to and support the innovative educational program.

During the design development stage for the first facility and during the construction phase the interior articulation of the projected educational spaces will be carried out through a planning effort of the parties involved.

Following are some attitudinal recommendations which must be considered at the early stage of facility design.

- The educational facility should as far as possible provide for the unique nature of each member of its population. That is to say, there must be aspects in the design which encourage more constructive flexibility than just movable partitions, folding walls and/or cabinets and storage units on casters. For example: Demountable panels and utility posts to be installed and disassembled with a minimum of effort and no professional labor would increase the possible environmental combinations considerably at an architectural scale (not at the scale of furniture and furnishings).
- A building, designed to accept change, can reflect what is already known about the patterns and educational needs of the age group with which we are working. In reference to the different stages outlined in the previous section, we are aware that children from the age of two to the age of eight are engaged to varying degrees of sophistication in kinesthetic explorations which should be encouraged educationally through the design. As they go beyond this age clearer separations can be made; a child can concentrate for longer; then go somewhere else for his physical education or active recreation. As a result of this fact, physical exercise on a type of play structure or with a pattern on the floor should be available and encouraged in the earlier learning areas. The acoustical problems of such activities should be recognized. Protected outside areas for pre-school recreation should be immediately adjacent to the early learning center. The relationship of the interior to the exterior is most critical as small children should be encouraged to experience both.
- We must discover educational tools at the scale of architecture. For instance, the building itself with exposed post and beam construction as well as exposed electrical conduit and the mechanical air distribution system is a lesson in itself at many levels. Additional photographs and drawings of the construction phase would reinforce such a lesson as would an architectural drawing of the floor plan displayed in high relief on a wall. Exaggerated textures, a variety of light sources and levels and the creative use of primary colors would enhance a child's exposure to and consciousness of the environment.
- If a child is under three feet tall, how can he be made to feel important? Is there a way that the configuration of his classroom or learning area recognizes this height? Do the windows go from the floor to the height of four feet? Are there some doors which are accessible only to the child because of their dimensions? (One immediately thinks of a small playhouse set up in one of these classrooms. I suggest that we need not insert such an object which looks out of place but instead, design the room with these needs in mind.)

When we think of "systems" design, we are usually concerned with a modular wall or ceiling system which will accept different types of materials or mechanical systems according to the needs of that specific space. Can we not go one step further and think in three dimensions, bearing in mind the size of a child and the size of an adult? The modular system might be a 4' x 4' x 4' cube so that the space is molded with specific solutions for the physical and psychological needs of a child at his own scale as a part of the architecture, not something added later as a piece of furniture or climbing structure. Desks and chairs might be designed in this module also for easier stacking and storage as a mass which could be used in different ways.

- The behavioral characteristics for each age group identified previously in section II should suggest the type of spaces conducive to learning specific skills and concepts at the scale and importance of an architectural consideration. Since this facility is not going to have individual classrooms, but instead learning areas, specialized activity walls or areas can be set up in a specific place or as a semi-permanent divider and different groups and individuals will come to it rather than having to set up a miniaturization of such a demonstration at each teaching station at different times of the day and year. For example: How many children experiment creatively with a seesaw and come away with the idea of a lever with a fulcrum or with the elemental formula of :  $\text{weight} \times \text{distance} = \text{wt} \times \text{dist}$ . ? Another example might be a science activity wall where the wall itself was manipulated to become a greenhouse, a weather station or any other experimental activity which needed the inside and outside air to be effective.
- Behavioral characteristics can also help in identifying large and small muscle coordination and development. What implications do they have for interior and exterior play and learning areas? Ropes, ladders, steps, pipes provide a child access to different levels and also allow him to exercise. Play structures should be a vital part of the spatial design.
- At a grand scale each of the senses should be exercised. -- seeing: size, color, shape, texture, movement, light; hearing: music, noise, soft, loud, quiet; feeling: manipulating, caressing, biting, molding, touching; smelling: inside, outside, kitchen smells, unpleasant smells, fresh air, stale air; tasting: sweet, sour, good, bad.
- The forum or sunken area has become popular in elementary schools because of its versatility. One can sit on the carpeted steps. Sight lines are good and so is the feeling of intimacy. What are other solutions which take into consideration the height and comfort of the teacher as well the child? If greater numbers of adults are going to play a role in the day to day operation of the school cannot a scale be developed for them? The forum might have two depths of stair riser - one for children and one for adults or niches at intervals for the adults to be comfortable. This is articulation of a very meaningful nature.

If the community facility is to be adequately integrated into the complex, considerable effort must be made to combine the scales of each in order to encourage cooperative interrelationships.

The circulation pattern for this educational—community facility is complex and must be treated in a most sophisticated manner. Several levels and priorities must be considered:

- a. circulation through the site encouraging visual participation without disrupting any activities going on there. (see appendix, p. 3).
- b. circulation within the facility for observation purposes.
- c. circulation to account for both educational and community needs.

## EDUCATIONAL SPECIFICATIONS

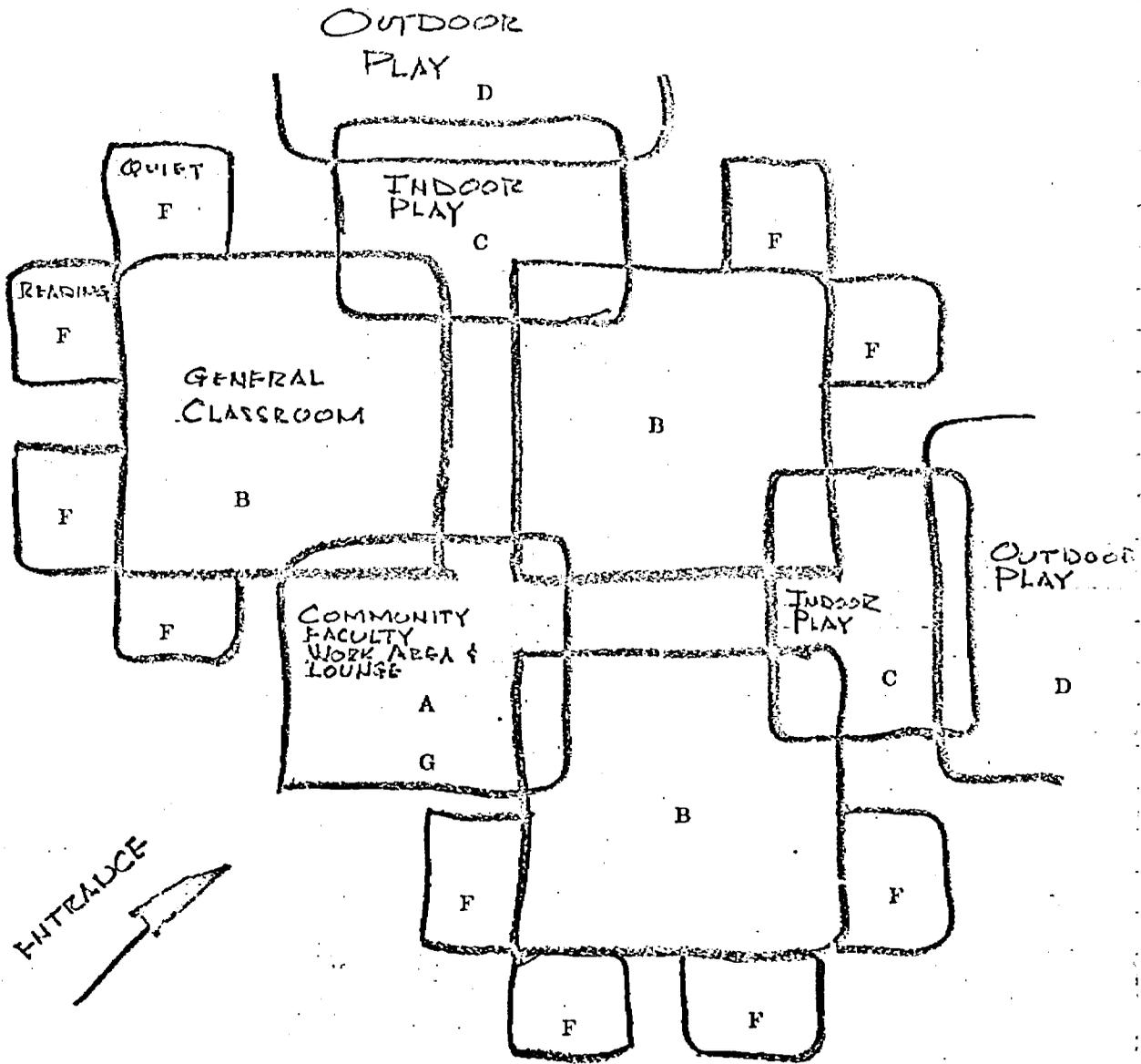
### IV

In this section an attempt is made to translate some of the general considerations discussed earlier into some more specific facilities "ideas." Even at this stage, however, the drawings shown are schematic; they show possible arrangements of space (and possible square footage ranges are also suggested) without proposing an architectural plan.

Each stage (age level) is treated separately, but it must not be supposed that we are recommending three buildings, or one with three levels, etc. The actual building should take account of the factors considered here, but its design comes at a stage of specificity beyond this one, and in the hands of a designer or architect.

Furthermore, it should be kept in mind that the general characteristics of a given age group cannot be completely translated into a facility. A building can, at best, provide an environment appropriate for a given age group -- an environment in which certain kinds of things can happen.

A Note on the Square Footage Recommendations: Throughout this document, square footage recommendations are presented in ranges because the educational program, in order to be fluid, will have to operate in an environment of versatility. There is no indication that a given area has this or that specific optimum size or that there should be a specific number of such areas. The main function of the numbers is to correlate a given amount of space with the number of people it is intended to serve.



STAGE I

STAGE I (Ages 3-5) 125 - 175 children

GENERAL FACILITY CRITERIA - (Keyed by letter to diagram on opposite page)

- ←- A
  - Parents, para-professionals and teachers will be the core of the Stage I facility. The workrooms for teachers, para-professionals, parents and volunteers must be completely integrated with the educational area since the children are very small and are in need of almost constant supervision and gratification.
  - "School" for these children must be an extension of their homes, without the threatening aspects of a huge and complex institution.
- ←- B
  - A variety of activities should be immediately adjacent to each other so that the child may go from one to the other without fear or confusion.
  - Games, audio-visual equipment, etc. should be available to be used in an exploratory fashion.
- ←- C
  - Indoor physical activities should be in close proximity to the general classroom area since the child should be encouraged to exercise without waiting for an exercise period.
- ←- D
  - There will be easy access to one or two protected outdoor areas. Different transitional devices should be explored, for example, an "air door" (which is a curtain of air used instead of a solid door).
- ←- E
  - There should be a plumbing duct in the floor to deliver water and provide drainage to parts of every area.
- ←- F
  - On the periphery of this facility should be small, private, intimate, quiet reading and resting areas to accept a group as large as sixteen or individuals. These could be looked on as "homerooms". Each one should have characteristics unique to it.
  - Toilets should be located obviously and within each general area.
  - Eating should be done within the general area.
  - Carpeting should be used for a majority of the space with the exception of "wet" areas and areas which accentuate texture differentials.
- ←- G
  - Care should be taken in the design to provide areas which are acoustically and visually isolated from the children so that observation and teacher training as well as training and exposure for the para-professional can go on without distracting the children.

**STAGE I - Square Footage Recommendations**

(Keyed by letter to diagram on preceding facing page)

**<-- B    General Areas**  
**3 @ 2,000 - 2,400** **6,000 - 7,200**  
● Recommendations: Art and Wet areas. Materials, storage, general work areas, block play, dress-up area and dramatic area. Good ambient lighting with incandescent and natural highlights. Partitions and other flexible devices for division into smaller areas.

**<-- C    Indoor Play Areas**  
**2 @ 1,500 - 2,000** **3,000 - 4,000**  
● Recommendations: Different textures on floors, manipulative equipment, educational equipment, transitional surfacing from indoor to outdoor sky lighting, water play, architectural elements at child's scale.

**<-- F    Quiet and Reading Areas**  
**10 @ 200-240** **2,000 - 2,400**  
● Recommendations: Carpeted, low, intimate, incandescent lighting.

**<-- A    Facility and Community Area**  
● Recommendations: To include offices, meeting rooms, lounge and work rooms, the partitions should be demountable, the area carpeted and inviting to adults and children alike. **1,000 - 1,400**

**Total Educational Space** **12,000 - 15,000**

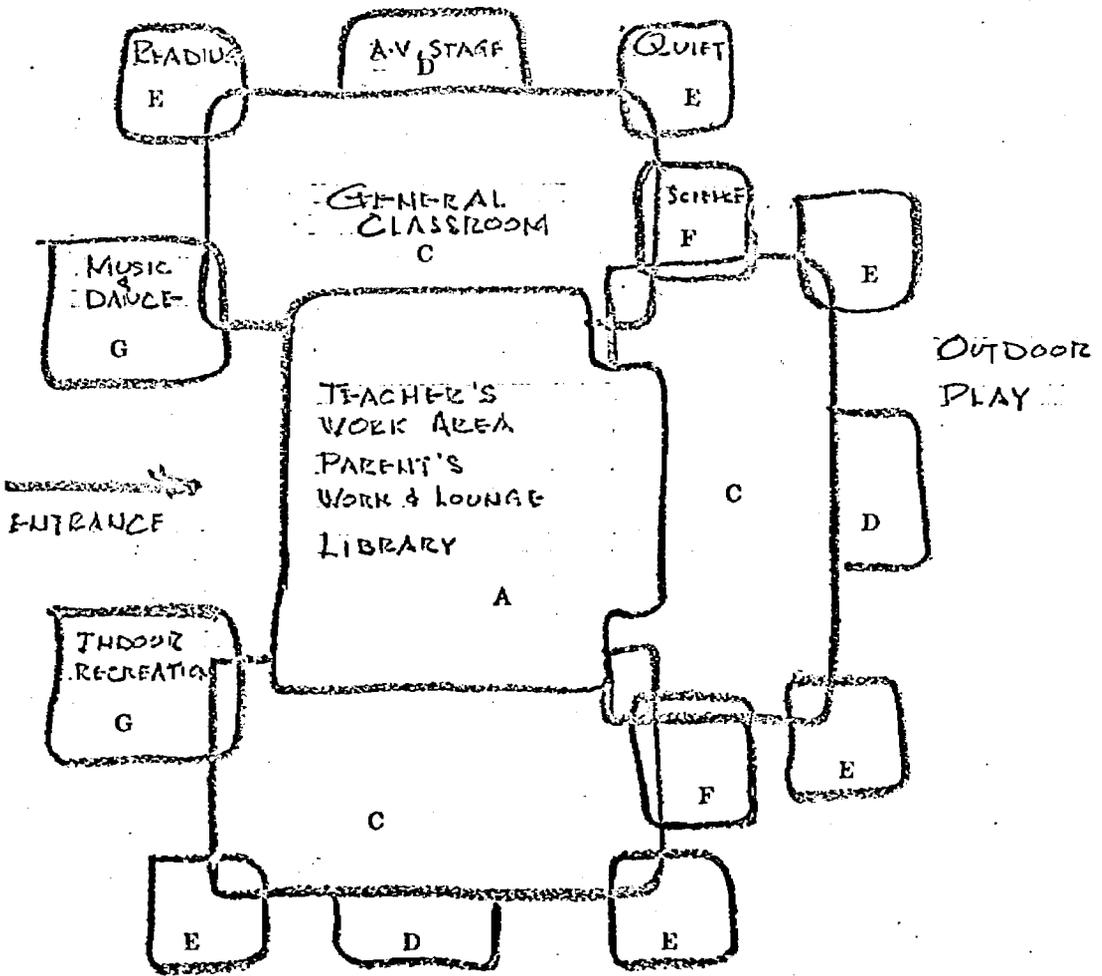
**Circulation, Stairs, Toilets, etc.**

**Observation and Teacher Training Rooms**

**25% of Net Educational Space** **3,000 - 3,750**

**Recommendations: Toilets - at three locations for children.**

**TOTAL** **15,000 - 18,750**



STAGE II

STAGE II (Ages 5 - 7) 125 - 175 children

GENERAL FACILITY CRITERIA - (Keyed by letter to diagram on opposite page)

- ← A ● These children are becoming more independent, secure and responsible for their actions. Consequently, the core of this area should be the library and resource center, combined with faculty and community meeting, lounge and work areas.
- ← B ● Special areas for different skills and types of activity should be obvious throughout this complex.
- ← C ● Adjacent to the core should be the general activity area, including "wet" areas for art, tables and carrels for group and independent work, and a wall or partition system which can visually isolate different sections. Carpeting should be used as well as textured hard surfacing.
- ← D ● There should be three drama and audio-visual areas to be manipulated and design for a variety of presentation and productions. Lighting in the dramatic area should be state lighting of a flexible nature. (It should be possible to darken this area).
- ← E ● The periphery of this facility, also, should be small reading areas. They should encourage individual reading and group discussions. These areas should accept up to 18 students. They should be scaled to a child, the fenestration should be low and the lighting should be incandescent.
- ← F ● A special science center should be provided with direct access to the outside for plant and weather experiments.
  - The plumbing duct in the floor should allow for flexibility in the general activity areas as well as the science areas.
- ← G ● Children of this age will be able to go to special places for different events. Therefore, the music and dance area as well as the indoor play area should be adjacent to the complex rather than inside. This will encourage use of these rooms by other groups.
  - Eating will be done in the general classroom areas, outside, and in the lounges.

**STAGE II - Square Footage Recommendations**

(Keyed by letter to diagram on preceding facing page)

<-- C	<p><b>General Areas</b>            6 @ 750 - 1,000            ● Recommendations: To include materials storage, individual and group study areas, flexible space dividers.</p>	<p>4,500 - 6,000</p>
<-- E	<p><b>Quiet Reading Areas</b>            6 @ 250 - 300            ● Recommendations: On periphery varied character. Individual and group work, intimate atmosphere, carpet, incandescent lighting.</p>	<p>1,500 - 1,800</p>
<-- D	<p><b>Audio-Visual and Dramatic Presentations</b>            3 @ 300 - 600            ● Recommendations: Flexible areas for presentations and productions - dramatic lighting shared facilities for six areas.</p>	<p>900 - 1,800</p>
<-- F	<p><b>Science Areas</b>            2 @ 1,000 - 1,200            ● Recommendations: Access to outdoors.</p>	<p>2,000 - 2,400</p>
<-- G	<p><b>Music and Dance</b>            Acoustically isolated.</p>	<p>1,600 - 2,000</p>
<-- G	<p><b>Indoor Recreation</b>            ● Recommendations: Manipulative equipment, encourages changing constructions for equipment.</p>	<p>2,800 - 3,200</p>
<-- A	<p><b>Facility Administration and Community Area</b>            ● Recommendations: To include library, instructional materials center work rooms, meeting rooms, lounge. There must be an easy transition from this area to the general areas.</p>	<p>1,000 - 1,200</p>

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**Total Educational Space 14,300 - 18,400**

Circulation, Stairs, Toilets, etc.

Observation and Teacher Training Rooms

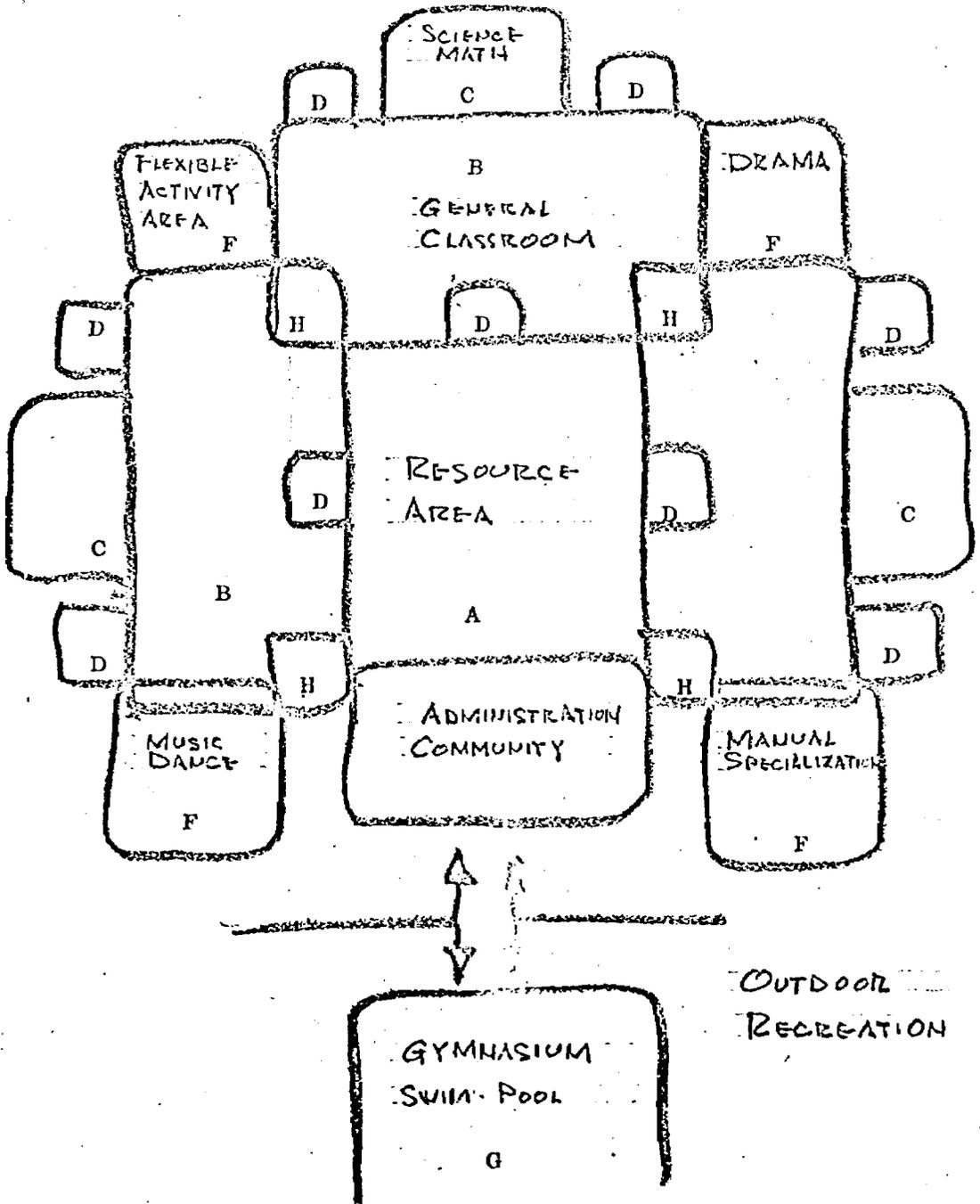
25% of Educational Space

3,575 - 4,300

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**TOTAL**

17,875 - 22,700



# STAGE III & IV

**STAGES III & IV (Ages 7-12) 250 - 350 children**

**GENERAL FACILITY CRITERIA - (Keyed by letter to diagram on opposite page)**

- ←- A ● This area for the oldest members of the elementary population will be organized around an information and resources core where teachers and community members congregate and students pursue individual activities.
- ←- B ● General work areas should surround this core.
- ←- C ● Special areas for math - science experiences should be provided.
- ←- D ● Reading and seminar alcoves should be provided throughout.
- ←- E ● A sophisticated dramatic presentation area should be well equipped to serve different needs.
- ←- F ● Special projects or activity areas should be located so as to serve different groups. Large constructions and displays can be located here.
- ←- G ● Physical Education will take place in the gymnasium and swimming pool adjacent with outdoor sports taking place in adjoining recreations land.
- ←- H ● Art facilities should be concentrated according to specialties such as ceramics, photography, drawing, and painting in order to insure proper equipment, storage, and lighting conditions.

**STAGES III & IV - Square Footage Recommendations**

(Keyed by letter to diagram on preceding facing page)

<-- B	<p><b>General Areas</b>                      6 @ 1,000 - 1,400                      ● Recommendations: Easy access to resource areas; includes materials storage, individual and group study areas, flexible space dividers.</p> <p>Quiet Reading and Seminar Rooms                      6 @ 240-320</p>	<p>6,000 - 8,400</p> <p>1,440 - 1,920</p>
<-- A	<p><b>Resource Area</b>                      Recommendations: To include community facilities, meeting rooms, administration, lounge, work rooms and instructional materials. Public access is important.</p> <p><b>Art Areas</b>                      4 @ 900 - 1,200</p>	<p>2,000 - 2,400</p> <p>3,600 - 4,800</p>
<-- C	<p><b>Science and Math Areas (Discovery Laboratories)</b>                      3 @ 1,000 - 1,400                      Recommendations: Indoor-outdoor communication. The exterior wall should contain pieces which could be opened and punctured at will.</p>	<p>3,000 - 4,200</p>
<-- F	<p><b>Special Activity Areas</b>                      4 @ 1,200 - 2,400                      Recommendations: Four areas will be different in character and dimensions for: drama, manual specialization, music and dance and a multi-purpose area. They must be considered as community facilities and be designed for such.</p>	<p>4,800 - 9,600</p>
<hr/> <b>Total Educational Space -</b>		<b>20,840 - 31,320</b>
<p>Circulation, Stairs, and Toilets, etc.                      Observation and Teacher Training Rooms                      25% of Educational Space</p>		<p>5,210 - 7,830</p>
<hr/> <b>TOTAL</b>		<hr/> <b>26,050 - 39,150</b>

V

It is the intention of all of the parties involved in the planning of the first facility as well as the whole educational system for Fort Lincoln to integrate, as closely as possible, the education of the children with the well-being of the entire community. Consequently, the bulk of the administration-community facility, including offices, meeting rooms and a lounge or waiting areas should be located for easy access from outside - the town center or mall, the health suite; and inside - the general classroom areas, etc. This facility should have the connotation of a storefront information and reception center, encouraging the general population to come in or participate in some display or presentation which might be featured. A reception and briefing area should be included in order to handle groups of visitors. The remaining administration-faculty work areas should be located within the areas designated for the use of Stages I, II, & III - IV as described in Section IV, the Educational Specifications.

Care must be taken in designing all of the administrative areas to avoid the kind of territorial hierachy prevalent in many educational organizations where the administration is separated from the guidance counselors, the guidance counselors are protected from the teachers, the teachers are guarded from the students, and the night users of the building are excluded completely! Suites of offices and meeting rooms will be interspersed throughout the facility taking on the description of another specialized learning area.

ADMINISTRATION - Square Footage Recommendations

2 or 3 offices @ 100 - 160	200 - 480
Informal lounge, conference area and waiting area	250 - 400
Efficiency kitchen facility - (alcove)	40 - 60
Storage, files	200 - 300
2 or 3 conference rooms for groups 10 to 15 in/size and/or general office space - divisible space @ 250 - 300	500 - 900
Toilets 2 @ 50 - 60	100 - 120
	<hr/>
Total area approximately	1,200 - 2,260
Health Suite To Be Specified	1,800 - 2,200
	<hr/>
TOTAL.	3,090 - 4,460
Circulation, etc. 15%	460 - 690
	<hr/>
TOTAL.	3,550 - 5,150

## SUPPORTIVE AREAS

### VI

#### Alternatives for Food Services

A program for feeding the hundreds of students to be coming to the Fort Lincoln area should be considered at this time, in order to design an economical system for the whole as well as a reasonable one for the first facility.

The services available, starting with the most conventional are mentioned below:

- A. Total on-premise preparation by school employees. This suggests a large staff, a fully equipped kitchen and preparation room and adjoining bulk storage.
- B. On-premise contractor-prepared meals. This is only slightly different than A in that a caterer takes over the managing of the operation; the same facilities are necessary.
- C. Off-premise contractor-prepared meals. The kitchen facilities are limited considerably for this option; a serving line with warming tables and storage for hot and cold elements is all that is necessary.
- D. Prepared convenience foods reconstituted in a limited kitchen. The kitchen is a good deal smaller with less elaborate equipment in this option; the convenience foods can be prepared by a contractor in his own commissary or in a central commissary built for all of Fort Lincoln's needs.
- E. Vended meals. This option includes a private vendor supplying machines with hot and cold choices to be selected by the child. This is difficult to imagine for three-year-olds.

Options can increase if one combines any of the above or if there are to be alternatives available to the children. We would strongly recommend, if it is economically feasible, to offer the children and adults the opportunity of choosing a hot lunch, a vended lunch, or some time off to go home for lunch period, etc.

FOOD SERVICES (Cont.)General Considerations:

Snacks of different kinds should be available starting at the breakfast hour right through until supper, since this is to be a continuously operating facility.

- Different places must be available to eat. A large cafeteria is not the answer for a relaxed eating environment.
- Small areas, access to the outside, teacher-student snack facilities, all of these should be considered as well as the possibility of eating in general classroom areas.
- A snack bar of some kind for students and faculty could have access to the town center mall as well as the health facilities and multi-service centers. This facility would encourage a kind of exchange available nowhere else on the premises.
- Thought should be given as to where one should encourage the interaction of faculty with each other, with students and parents and locate lounge facilities in these areas. Care should be taken to avoid the kind of separatism and departmentalism inherent in supplying small groups of adults with territories to control.
- The Washington area should be canvassed in order to identify "management food services" which could be engaged for the managing of this first facility as well as the whole operation, perhaps including the feeding operation for other institutions on the total Fort Lincoln site.
- The New York experimental program has designed a method in which frozen and efficiency food is bought (often using government commodities) and is processed by major food processors. Food is repackaged in a large commissary. Complete disposable service is used (paper trays and plates, plastic knives, forks, and spoons). There is freezer capacity for a week's supply in each school.

SQUARE FOOTAGE RECOMMENDATIONS

Kitchen Food Preparation	900 - 1,700
● Recommendations: This area need not be large if it is only used to reconstitute food.	
Snack Bar	800 - 1,000
● Recommendations: This can adjoin the kitchen or be separate and may be open for longer periods.	
Food Storage	<u>800 - 1,000</u>
<b>TOTAL</b>	<b>2,500 - 3,700</b>

SUPPORTIVE AREAS (Cont.)

Indoor Recreation Area	
Gymnasium	7,800 - 8,200
● Recommendations: Flexible space for community use for basketball, tennis, etc. in addition to large meetings. Investigations into proper floor materials may suggest that a hardwood floor is inappropriate for a multi-use gymnasium.	
Swimming Pool	6,500 - 7,500
● Recommendations: Indoor-outdoor pool. Outdoor deck adjacent.	
Locker rooms for gymnasium pool.	3,200 - 3,500
Public Circulation, Toilets, etc.	
20% of Recreation Space	2,860 - 3,140
	<hr/>
TOTAL	20,360 - 22,340
Mechanical Equipment and Boiler Room and Air Handling Rooms for Air Conditioning	3,300 - 5,000
● Recommendations: The boiler room and mechanical equipment area can be a very special learning area with the supply pipes, valves, tubes, etc. educationally displayed.	
Receiving Area	1,200 - 1,500
To include: custodians office, lockers, general storage (storage of learning materials will be provided in the Stage I, II, III & IV areas).	
	<hr/>
TOTAL	4,500 - 6,500

SQUARE FOOTAGE SUMMARY

VII

Stage I	15,000 - 18,750
Stage II	17,875 - 22,700
Stages III & IV	26,050 - 39,150
Administration - Community Facilities	<u>3,550 - 5,150</u>
Total	62,475 - 85,750
Supportive Areas:	
Food Services	2,500 - 3,700
Indoor Recreation	20,360 - 22,340
Mechanical Equipment and Air	
Air Handling Rooms	<u>4,500 - 6,500</u>
Total	27,360 - 32,540
TOTAL	89,835 - 118,290

## APPENDIX

Guidelines from: The Urban Renewal Plan

### I. Design Objectives and Aesthetic Considerations

(p. 16)\*

The highest quality of environmental, urban and architectural design will be a prime objective throughout the implementation of the Urban Renewal Plan.

The interrelationships between different kinds of open space, buildings of different uses, and circulation right-of-ways is especially important, so as to maximize both the opportunities for privacy and for social interaction in an environment which expresses at all levels the pursuit of excellence.

Developers, therefore, shall agree to reasonable design controls and design review through such means as may be established by the LPA.

Design objectives and aesthetic considerations essential to carrying out the Plan are as follows:

- The creation of a large vehicular-free central recreation and open space, easily accessible to all residents on the site.
- The creation of a public educational system of the highest quality which serves both on-site population and the metropolitan area, and demonstrates new approaches and innovations in curriculum, teaching methods, and the design and location of physical facilities. (p. 17)
- Flexible and adaptable structural systems for non-residential facilities especially in school facilities. (p. 18)

\*All page references refer to: Fort Lincoln New Town Urban Renewal Plan:  
Code Number R-14: 18 December, 1968.

## II. Relationship of New Town Planning Proposals to Plans for the Neighborhood

### Conformity to the General Plan:

The Fort Lincoln New Town Urban Renewal Plan is in conformity with the general plan for the District of Columbia as prepared by the National Capital Planning Commission, and in conformity with the plan, including street rights-of-way, open space, public facilities, and number, type and placement of housing units, with the Urban Renewal Plan for Project 1.

The proposed actions, land use, streets, right-of-way, public facilities and open space, public and private utilities, to be provided are all in accordance with and relate to the General Plan for the District, and to existing streets, utilities and land uses in the surrounding areas. The Plan will in fact reinforce existing patterns of development and provides a wide range of public and community facilities, (including schools, parks and recreation facilities, health facilities, commercial and higher educational facilities) for the use and benefit of residents of the surrounding communities.

### Land Use:

The proposed land use for the Renewal Plan will help achieve the local objectives of stabilizing existing residential neighborhood areas. The provision for new public and community facilities of the highest quality, as described in this plan, will improve conditions of heavy demand on schools, libraries, health and recreational facilities in the surrounding neighborhood.

### Traffic Improvements:

The Plan provides for an internal street system which minimizes the affect of increased traffic generation on the surrounding neighborhoods, by permitting easy and direct access to and from the major facilities on the site, without creating a demand for use of local streets. The internal transit system proposed for the site will make the public facilities on the site easily accessible to visitors and residents from adjacent communities. With the Extension of Eastern Avenue, the Plan meets the local objective of reducing traffic congestion, accidents and nuisances, and makes the site and the northeast area accessible to a much broader population area.

### Recreation and Community Facilities:

The Plan will provide a limited system of public open spaces and recreational facilities, connected to the Anacostia River Frontage which will facilitate pedestrian and vehicular access to the facilities anticipated for development along the river front.

### Educational Facilities:

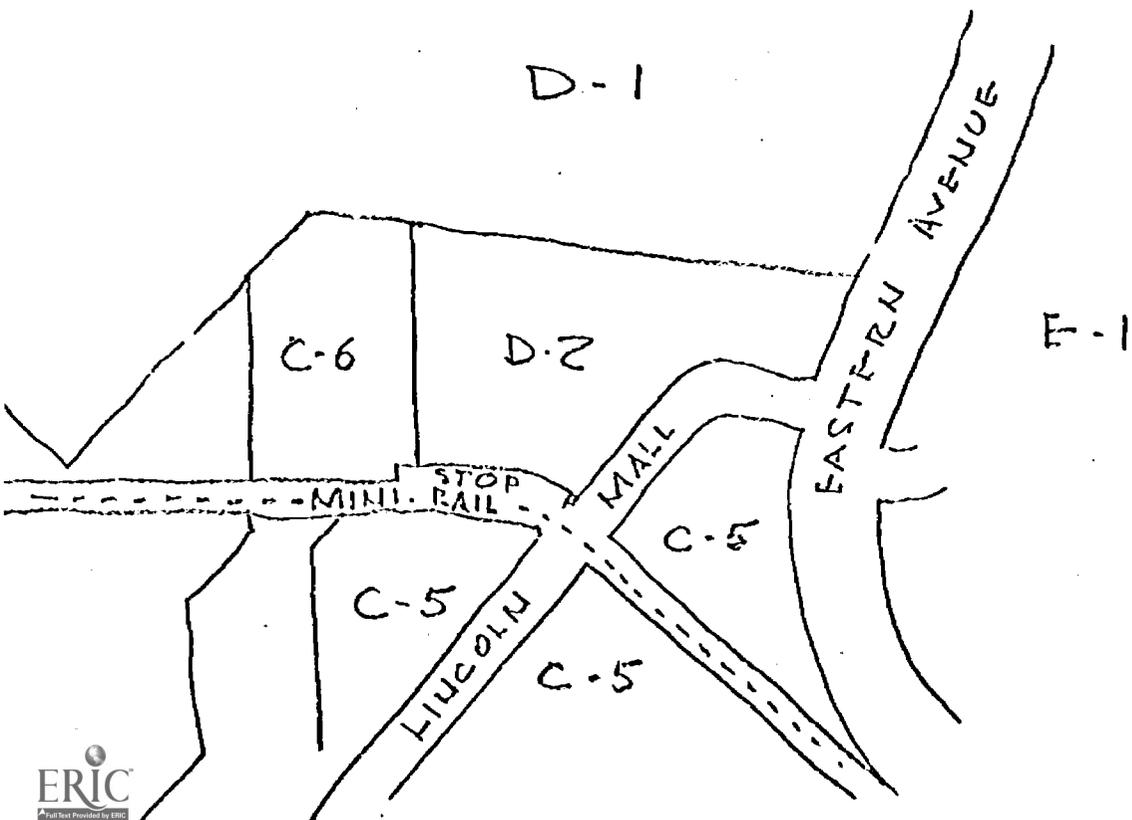
A new system of public educational facilities, with both general and special learning centers, serving approximately 2500 pupils from the surrounding area and from the District, will offer many new educational opportunities urgently needed in the area. In addition, a new health center and other facilities will significantly increase cultural opportunities in the area. The proposed Federal City College, with major playfields and a sports center will reinforce these new educational, cultural and leisure time opportunities.

### III. Development Areas

The renewal project area has been subdivided into six-areas, A,B,C,D,E, and F. Project 1 is included in Area D, which further includes an historic site and the site for the Project 1 school. Each development area is denoted by the major sub-area of which it is a part, hence Development Area A-1 indicates a Development parcel location within sub-area A.

#### Description of Project 1 school site

The area defined as Development Area D-2 on the map below is the site for a school to serve Project 1 residents and lies within the boundaries of the land to be acquired. Surrounding areas noted on the map will be described on the following pages.



Development Area D-2 (school site)

(p. 54)

- 1) General Use: Public, including public educational facilities and related open space.
- 2) Design Objectives: The design of the school shall provide for a direct above grade connection to the local service center and transit stop included in Area C - 10, and to the public open space historic area in Area C-6.
- 3) Land Use Controls:
  - a) Parcel Size:
  - b) Permitted Uses: Public educational facilities, open space and playgrounds and related parking. School facilities shall provide general and specialized spaces for up to 1000 pupils.
  - c) Parking: 50 spaces in structures
  - d) Vehicular and Service Access: Vehicular and service access shall be permitted from the private street right-of-way extending from Eastern Avenue south of Parcel.
  - e) Easements: As required by the LPA
- 4) Building Requirements:
  - a) Maximum permitted height:
  - b) Maximum permitted coverage: 35-45%
  - c) Setbacks: No setbacks permitted from street right-of-way south of areas
  - d) Density: Not applicable

Surrounding Development Areas:Development Area D-1

(p. 51)

Development Area D-1 corresponds to the Project 1 area of the Fort Lincoln Urban Renewal area, and is not included as part of the Fort Lincoln New Town Urban Renewal Plan as land to be acquired.

Development Area C-5

- 1) General Use: Residential, commercial, public, joint-development, including related parking.
- 2) Design Objectives: The creation of a local commercial and public facilities center on the hill top ridge with direct pedestrian access across a dedicated street right-of-way, to a structured parking garage around which three high-rise elevator apartment slab buildings are grouped with particular consideration to orientation and views.

- a) Parcel Size:
  - b) Permitted Uses: High-rise elevator, residential, commercial, public and semi-public and related parking in structures including recreational facilities and general and special educational and pre-school facilities. Approximately 152 dwelling units shall be provided.
  - c) Parking: As defined in section C-7 with approximately 152 spaces for the residential units and 45 spaces for the non-residential facilities in structures and 25 spaces in open space lots.
  - d) Vehicular and Service Access: Access directly to garages from the dedicated street right-of-way only.
- 3) Easements: As required by the LPA.
- 4) Building Requirements:
- a) Maximum permitted height: 130' from the highest street grade elevation.
  - b) Maximum permitted coverage: 85 - 95%
  - c) Setbacks: None required
  - d) Density: Not to exceed 90 dwelling units per acre for the area

Development Area: C-6

(p. 52)

- 1) General Use: Public open space.
- 2) Design Objectives: Preservation of existing trees and vegetation on wooden hill top area.
- 3) Land Use Controls:
  - a) Parcel Size:
  - b) Permitted Uses: Public open space and preservation and commemoration of historic site as shown on the Site Development Plan, Exhibit H.
  - c) Parking: Non permitted.
  - d) Vehicular and Service Access: None permitted.
  - e) Easements: 40' wide easement for internal transit system.

4) Building Requirements:

- a) Maximum permitted height: No building construction will be permitted at or above grade level, except that which is related and incidental to the public open space and historic site.

Development Area: E-1

(p. 56)

1) General Use: Residential

- 2) Design Objectives: The creation of a terminal space for the high ridge development with high-rise elevator residential slab structures with structured parking and clustered walk-up apartments and town houses facing the large open space (parcel E-5).

3) Land Use Controls:

- a) Parcel Size:
- b) Permitted Uses: Residential high and low-rise and related parking. Approximately 174 dwelling units shall be provided, with 104 in elevator structures.
- c) Parking: Structured and surface open lot parking shall be provided in section C7; with 60 structured and 114 surface spaces provided for the above building program.
- d) Vehicular and Service Access: Vehicular and service access from Eastern Avenue by a private cul-de-sac street running easterly from Eastern Avenue with a 120' diameter turn-around.
- e) Easements: required and determined by the LPA.

4) Building Requirements:

- a) Maximum permitted height: 130' from street grade elevation of...
- b) Maximum permitted coverage: 75% exclusive of surface parking areas or 90% including open lot parking areas.
- c) Setbacks: No setbacks required from Eastern Avenue Extension.
- d) Density: Gross residential density shall not exceed 90 dwelling units per acre for the are .