PLANNING CRITERIA AND RECOMMENDATIONS
This section includes basic policy decisions to be made with regard to planning for children's play. Such issues as the economics of planning, whether or not to have play leaders at playgrounds, whether or not there is need for a base-wide child advocate to look out for and coordinate programs for all of children's outdoor recreation needs, and strategies for implementing new plans are all dealt with in this section.

101 A Program and Master Plan
102 An Advocate for Play
103 A Variety of Play Experiences
104 Strategies for Funding and Establishing Play Areas
105 Multi-Factor Economic Analysis
106 Playleaders
The availability of play and recreation areas is a necessary and significant component of army morale and reenlistment programs. Therefore, the importance of play and planning for play on military bases must be considered in a master plan.

Justification

An all-volunteer army has increased the number of army families with children and therefore the demand for family housing and family services. The military community includes now over 1,000,000 children from infancy to adolescence who live with their families on military installations.

Because of the time and effort it takes to train military people, reenlistment is a major issue. Family morale is one issue which a family considers in a reenlistment decision. The availability of play and recreation opportunities is one factor which contributes to a positive image of "life in the army."

The relative importance of play in housing areas is argued by Cooper Marcus in her study of Easter Hill Village. She concludes that

\[ \text{Since by far the greatest number of users of public open spaces in multifamily housing are children ... more effort should go into designing the site for children's rather than adults' use.} \] (Cooper Marcus, 1975, p.

Principle

A program and physical master plan for play on each base

Develop a program and physical master plan for play on each military base, and include a variety of participants in the planning process.
RECOMMENDATIONS

Systematic planning for play is important. While projects could be done on an ad hoc basis, planning for play provides the following benefits:

1. ability to consider and compare merits of specific programs against the general needs of the base

2. ability to coordinate incremental achievements so that they reinforce and contribute to an overall plan

3. provision for an authoritative source of planning information for design and construction firms making turnkey proposals for new family housing

4. establishment of a frame of reference for evaluation, negotiation, and decision making

5. communication of the intention to implement grass-roots and self-help proposals
Although play is important to army bases, the institutional structure and the separation of planning and funding activities make it difficult for new playgrounds to "happen."

The planning and implementation of play areas was not always a part of an overall planning program. In addition, some of the most important play areas in any proposed network are tiny and could easily be done as self-help projects. A bureaucratic system is not designed to support and coordinate such small-scale, incremental efforts. However, a single person within that system could.

Implementation problems due to lack of clear, designated leadership also occur in civilian park districts.

Lack of communication among city, county, and private agencies is a major problem preventing the optimum utilization of existing recreational facilities and programs. As a consequence, coordination is inadequate between city and county recreation departments and between such departments and the various semi-public organizations carrying on recreation activities. In addition, communication between recreation departments and the citizen is frequently inadequate. In the past, recreation officials have felt it sufficient merely to provide recreation opportunities. Today, citizens not only must be informed of the availability of the various programs, but also convinced that participation and utilization are worthwhile. However, communication alone is not enough. Recreation officials and recreation leaders must have the ability to relate departmental activities and programs to the needs of the community. (Gold, 19 , p.

As suggested in the Travel Report (1978), play is a "lost soul" and without a single advocate, not much will happen.
Provide for the position of an advocate for play whose single task would be developing and coordinating planning and participation in providing play opportunities.

Recommendations:

- Write a job description for a single, designated advocate for play and recreation at each military base. This advocate could be based either in the master planning office, or more likely, in Community Services.

- Responsibilities of an advocate/coordinator would be the following:
  
  - advocate and encourage "planning for play" with various agencies
  
  - act as ombudsman for parks and play areas after construction to assure quality maintenance, maintain safety, and to stimulate and review change proposals
  
  - organize and stimulate community participation in the master-planning, program development, and implementation of play and playground proposals
  
  - coordinate masterplanning and predesign planning on housing, school, child-care, and recreation planning projects
  
  - coordinate funding
  
  - assure final implementation
ISSUE

SATISFYING CHILDREN'S PLAY NEEDS WILL, IN FACT, PROMOTE THE SATISFACTION OF THE ENTIRE COMMUNITY BY HELPING TO ENSURE HEALTHY DEVELOPMENT OF CHILDREN AND BY REDUCING UNPRODUCTIVE BEHAVIOR COMMON AMONG FRUSTRATED CHILDREN.

JUSTIFICATION

Children have basic play needs which are directly related to healthy social, physical, and intellectual development (see THE NATURE OF PLAY). These play needs vary from child to child and vary within one child from day to day and stage to stage. One particular type of play area cannot meet all children's needs or even some children's needs all the time.

Since children will try to satisfy these needs whether possibilities exist or not, play can actually become a disruptive element in the community, a source of contention between adults and children and a frustrating problem for both. An enriched environment with potentials for many types of play in areas of which adults approve, will reduce the frustration which children (and parents) feel, and thereby enhance development.

PATTERN

PROVIDE A RICH VARIETY OF PLAY EXPERIENCES WHICH INCLUDE OPPORTUNITIES FOR VARIOUS FORMS OF PHYSICAL, SOCIAL, AND COGNITIVE PLAY. INCLUDE DIFFERENT TYPES OF PLAYGROUNDS (E.G., ADVENTURE PLAY, DESIGNATED PLAY STRUCTURES, ETC.).

RECOMMENDATIONS

- See Types of Play in THE NATURE OF PLAY for the types of play to be provided for.

- See patterns in Section 700 for different, particular types of play areas to be provided in a comprehensive play scheme.
ISSUE

FUNDING PLAY AREAS AND IMPLEMENTING PLANNING DECISIONS IS DIFFICULT BECAUSE OF THE DISPARATE AND OFTEN SCARCE FUNDING SOURCES FOR PLAY AND RECREATION AREAS ON ARMY BASES. IN ADDITION, LAND ALLOCATION FOR PLAY AREAS IS OF LOW PRIORITY; INITIAL CONSTRUCTION AND FURTHER MAINTENANCE OF PLAY AREAS ARE TYPICALLY UNDERFUNDED OR NOT FUNDED AT ALL.

JUSTIFICATION

If the role of play in the quality of life is recognized, then an appropriate response would be to organize funding allocation and planning procedures which support implementation of play areas and facilities.

According to Ledermann and Trachsel (1968), space for play should be set aside immediately during early planning stages and not be allowed to be pushed into left-over areas.

In support of such considerations, Lady Allen (1968) says:

Many happily conceived plans have failed to materialize because there is rarely any obligation to allocate funds for their development at the start of the project. There should be a firm policy of relating the cost of environmental development to housing costs and thereby ensuring that money so allocated cannot be whittled away. (p. 139)

Cooper Marcus emphasizes the importance of the issue in the following statement:

Designers must make it clear to the client, the builder, loaning authorities, and management that landscaping, play equipment, fences, benches, etc., are not "extras" that can be eliminated at the construction phase without altering the whole social and aesthetic effectiveness of the design. Where some or all of these features have been eliminated—usually by the builder in order to cut costs—the social consequences in terms of an unattractive environment, lack of play areas, reduced privacy, lack of gathering places, etc., have been considerable. (1975, p.
Adventure and natural play areas have special funding problems because they require staffing. The general experience with funding of natural play areas suggests that such areas benefit from volunteer help in developing, building, and maintaining them (Travel Report, 1978) whether or not they are associated with schools. The donations that have supported the Central Park Playgrounds and many others do not appear to be a viable resource for military bases, although joint sponsorship with a school district is a possibility, especially for natural play areas. Adventure play areas require staffing for playleadership and a continuing program of support.

Playgrounds can also have ongoing financial problems. According to Clare Cooper Marcus' analysis of Easter Hill Village, successful play areas in family-housing areas require a well-conceived support system such as a home-owner association which has a clear and published policy on play. While some of her recommendations are not directly applicable to military settings, there is a parallel need for organization.

In Cooper Marcus' study of 349 home-owner associations, six characteristics were found to be common to successful associations, and are presented here as guidelines:

1. The home-owners association must be set up before the dwellings are sold.

2. Membership must be mandatory for each buyer and each successive buyer.

3. The open space restrictions must be permanent, not just good for a given period of years.

4. The association must be responsible for liability insurance, local taxes, and the maintenance of recreational and other facilities.

5. Residents must pay their pro rata share of the cost; the assessment levied by the association can become a lien on the property.

6. The association must be able to adjust the assessment to meet changed needs. (1975, p.
Another major study of the problem suggests the following:

Optimal utilization of potential recreation resources is not being achieved in most of the nation's cities. The substantial acreage adjacent to, underneath, and above expressways and highway interchanges has been virtually undeveloped for recreation purposes. Publicly owned facilities with existing recreation capabilities are being underused. School facilities in particular, even in jurisdictions having city-school recreation agreements, are not being utilized effectively. To meet the rising demand for recreation, in spite of the declining availability of open space, cities must expand the multiple use of facilities, establish park-school complexes, and employ imaginative designs and new construction techniques. (Gold, 1968, p.

It can be seen that new family-housing areas represent an important place for increasing the quality of play on military bases.

There appear to be five possible ways of getting play funded on Army bases:

- as part of a "turnkey" program
- as a special program of the Community Services office: self-help program
- use of non-appropriated funds and maintenance funds assigned to the family-housing office, community services office, or base maintenance
- gifts of time, materials, and equipment: sometimes as a service project of a reserve or military unit
- use of non-appropriated funds and maintenance funds of a particular unit, e.g., a school or nursery
Judging from the state of children's outdoor recreational environments on bases visited, none of these methods are very successful. However, the "turnkey" incentive program and the self-help projects may have the most potential (Travel Report, 1978).

PRINCIPLE

STRATEGIES FOR FUNDING AND ESTABLISHING PLAY AREAS

ALL AVAILABLE STRATEGIES TO ACQUIRE LAND, SECURE FUNDING, AND ENSURE CONTINUING SUPPORT SHOULD BE REVIEWED AND APPROPRIATELY USED ON EACH BASE.

RECOMMENDATIONS

- Each base should identify the various funding alternatives available to it (including donations and volunteer work).

- Regulations should be written to require area planning to restrict categorical reduction of equipment and facilities in "turnkey" proposals for family-housing areas.

- If playgrounds are to be evaluated as a criteria of proposal-selection in turnkey projects, regulations should be written so that they cannot be categorically eliminated to save costs later on.

- Housing proposals should provide for play at the ratios spelled out in THE TIERED PARK SYSTEM.

- Residents in existing family-housing areas should provide information on preferences when planning new family-housing areas.

- Costs associated with staffing child play should be assigned to a specific jurisdiction at each military unit.

- Playleadership should be identified as a specific job category within the Family Services Division.

RELATED ITEMS

THE TIERED PARK SYSTEM
ECONOMIC ANALYSIS IS OFTEN INAPPROPRIATELY LIMITED TO INITIAL CAPITAL COST. OTHER FACTORS DESERVE CONSIDERATION EVEN THOUGH THEY MAY BE MORE DIFFICULT TO ESTIMATE.

Dattner (1969) suggests that the cost of play spaces should be figured by use and maintenance, not by initial cost.

Stone (1970) in a publication of the National Association for the Education of Young Children, suggests that in figuring costs, the planner should weigh the actual use children make of the various alternatives; choosing the most use for money available is better than purchasing the least expensive alternative.

Lady Allen (1968) adds that:

Skimp allocations of funds for landscape work at the outset will certainly involve greater expense in the future, for the total environment will remain drab and forlorn and consequently attract vandalism. (p. 139)

Adventure playgrounds deserve special consideration as a cost-effective play area. For a modest capital investment and a modest continuing cost for playleaders, it delivers developmentally-relevant play experiences at a higher rate of usage than other types of play areas (Rothenburg, 19).

However, according to landscape architect Bill Rock,

Adventure playgrounds are difficult to develop as part of a park system because the preference of most park systems' administrators is to spend $20,000 on five pieces of equipment rather than on the salaries of 5-10 aides for the summer (a typical playleader budget for 5-10 aides would be $20,000 for three summer months). (Travel Report, 1978, p. 105)
Economics of land costs are not a determinant on military bases as they are in civilian settings. Still, on many bases land in prime locations is in scarce supply and during the planning of a new family-housing area it is easy to squeeze out open space to make the overall scheme more compact and less expensive.

The following charts summarize the following:

- areas in which you shouldn't try to save money
- a multi-factor analysis of various economic considerations for the different types of parks recommended
- typical planning costs for various activities according to the Southeastern Wisconsin Regional Planning Commission (1977)

### AREAS IN WHICH YOU SHOULD NOT TRY TO SAVE MONEY

<table>
<thead>
<tr>
<th>CAPITAL COST FACTORS</th>
<th>ISSUES TO CONTROL COSTS/MAXIMIZE BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SITE PREPARATION</td>
<td>Select sites suitable for selected activities. Develop good, clear drainage patterns.</td>
</tr>
<tr>
<td>EQUIPMENT</td>
<td>Quality equipment lasts and requires less maintenance. A cost-benefit analysis shows that heavy use will put poor quality equipment &quot;out of use&quot; thus making it more expensive than more expensive, better quality equipment which continues to be used. (Dattner, 1970; Lady Allen, 1968)</td>
</tr>
<tr>
<td>UTILITIES</td>
<td>Distance and frequency of connections/outlets are the biggest cost factors.</td>
</tr>
<tr>
<td>LANDSCAPE MATERIALS</td>
<td>This becomes a major asset of any developed area and should not be eliminated to save money.</td>
</tr>
</tbody>
</table>
Some specific examples of typical costs (1975) are recorded in the two charts that follow:

### UNIT COSTS FOR TRAIL FACILITY DEVELOPMENT WITHIN THE PROPOSED PUBLIC RECREATION CORRIDOR: 1975

<table>
<thead>
<tr>
<th>TRAIL TYPE</th>
<th>UNIT COST</th>
<th>SPECIFIC COSTS INCLUDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide trail (8 ft.) Accommodating biking and snowmobile activity</td>
<td>$31,000 per linear mile in heavy use area</td>
<td>Clearing, bituminous paving, and signing</td>
</tr>
<tr>
<td>Narrow trail (5 ft.) Accommodating hiking, horseback riding, nature study, and ski touring activity</td>
<td>$7,000 per linear mile in heavy use area</td>
<td>Clearing, compacted gravel surface, and signing</td>
</tr>
</tbody>
</table>

Southeastern Wisconsin Regional Planning Commission, 1977, p. 394

### UNIT COSTS FOR PROPOSED FACILITY DEVELOPMENT: 1975

<table>
<thead>
<tr>
<th>Facility</th>
<th>Unit Costs</th>
<th>Specific Costs Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseball Diamond</td>
<td>$14,000 per diamond (base cost)</td>
<td>Base cost per diamond includes amounts for backstop, grading and field preparation, and related parking</td>
</tr>
<tr>
<td>Basketball Goal</td>
<td>$30,000 optional lighting and fences per diamond</td>
<td>Cost per goal includes amounts for goal and backboard, site preparation and paving, and fencing</td>
</tr>
<tr>
<td>Basketball Goal</td>
<td>$2,125 per goal</td>
<td></td>
</tr>
<tr>
<td>Playfield</td>
<td>$2,800 per playfield</td>
<td>Cost per playfield includes amounts for grading, seeding, fertilizer, and top soil material</td>
</tr>
<tr>
<td>Playground</td>
<td>$4,700 per playground</td>
<td>Cost per playground includes amounts for play equipment and surface material</td>
</tr>
<tr>
<td>Softball Diamond</td>
<td>$10,000 per diamond (base cost)</td>
<td>Base cost per diamond includes amounts for backstop, grading, and field preparation, and related parking</td>
</tr>
<tr>
<td>Softball Diamond</td>
<td>$25,600 optional lighting and fences per diamond</td>
<td>Cost per pool includes amounts for bathhouse, pool equipment, concessions, site preparation, and related parking</td>
</tr>
<tr>
<td>Swimming Pool</td>
<td>$672,500 per pool</td>
<td>Base cost per pool includes amounts for grading and surfacing, fencing, nets and posts, and related parking</td>
</tr>
<tr>
<td>Tennis Court</td>
<td>$10,600 per court (base cost)</td>
<td>Cost per Type III park includes amounts for general park lighting, small shelter building and rest rooms, general landscaping and walkways, park furnishings (including picnic tables, benches, waste containers and signs), and a parking lot</td>
</tr>
<tr>
<td>Tennis Court</td>
<td>$3,600 optional lighting per court</td>
<td></td>
</tr>
<tr>
<td>Additional Park Development Costs</td>
<td>$109,500 per Type III park</td>
<td>Cost per Type IV park includes amounts for general park lighting, general landscaping, walkways, and park furnishings (including picnic tables, benches, waste containers, and signs)</td>
</tr>
<tr>
<td>Additional Park Development Costs</td>
<td>$28,340 per Type IV park (base cost)</td>
<td></td>
</tr>
<tr>
<td>Additional Park Development Costs</td>
<td>$25,000 optional small shelter and rest rooms</td>
<td></td>
</tr>
</tbody>
</table>

Southeastern Wisconsin Regional Planning Commission, 1977, p. 431
Adventure play areas pose a particular kind of planning problem because they don't fit the typical emphasis on equipment found in most park and recreation planning. As reported in the Travel Report:

**Capital Investment/Operating Cost**

The capital investment cost of adventure playgrounds is actually quite low. They need a fence, high quality tools (cheap tools are more expensive in the long run because they don't last), loose and donated materials that need to be picked up, a pick-up truck—all basic for an adventure playground. The operating cost is the salaries of the playleaders and their staff. (Travel Report, 1978, p.

In the Travel Report we outlined some typical recent costs for play areas. Those findings are repeated below:

A $30,000 neighborhood play area like the one in Bolling's family housing area has a lot of positive impact on both kids and their parents. The kids identify with it and use it and the parents enjoy the idea of having it as an amenity.

Large impressive contemporary play areas capable of handling 100-200 children like those in Central Park can easily cost $200,000 to $300,000.

Less expensive play areas can also have impact. But even a few pieces of the most traditional metal equipment or the newer timber equipment can cost $3,000-4,000 before installation.

Both expensive and inexpensive play areas can fail if they don't fulfill the basic criteria of good playgrounds.

Adventure playgrounds cost $20,000-30,000 an acre plus yearly playleadership costs of about $20,000. (Travel Report, 1978, p. 182)
### Multifactor Economic Planning

<table>
<thead>
<tr>
<th>Economic Issues</th>
<th>Home Based</th>
<th>Immediate Neighborhood</th>
<th>Neighborhood</th>
<th>Link</th>
<th>Natural</th>
<th>Adventure “Theme”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Investment (range)</td>
<td>0-1000</td>
<td>2000-10000</td>
<td>30000+</td>
<td>7000/10000</td>
<td>30000</td>
<td>20,000-30,000-300,000</td>
</tr>
<tr>
<td>Continuity (life cycle cost)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Varies</td>
<td>Varies</td>
</tr>
<tr>
<td>Landscape Maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment and Facility Maintenance</td>
<td>Varies</td>
<td>Yes</td>
<td>Yes</td>
<td>Minimal</td>
<td>Minimal</td>
<td>Minimal</td>
</tr>
<tr>
<td>Staffing</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes/No</td>
<td>Yes</td>
<td>Yes/No</td>
</tr>
<tr>
<td>Efficiency (use)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Use</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Very Good</td>
<td>Good- Very Good</td>
<td>Good</td>
</tr>
<tr>
<td>Impact on Children’s Development</td>
<td>Important</td>
<td>OK/Good</td>
<td>OK/Good</td>
<td>Very Good</td>
<td>Very Good</td>
<td>OK/Good</td>
</tr>
</tbody>
</table>

### Notes

1. Self help, donated labor and materials, or grants can reduce this cost.
2. Any park system or open space system requires maintenance.
3. Equipment maintenance can be minimal or continuous depending both on the pieces selected and the local social climate.
4. Staffing: adventure playgrounds require staffing which will vary with the size and duration of the program.
5. Playleadership is a re-emerging trend in parks and recreation. $20,000 = salaries for 5 staff and a playleader for a summer for 100-500 children.
PRINCIPLE
MULTI-FACTOR ECONOMIC ANALYSIS (COST BENEFIT)

DO A MULTI-FACTOR ECONOMIC ANALYSIS BASED ON
USE, MAINTENANCE, INITIAL COST, LIFE-CYCLE
COST, AND BENEFITS.

RECOMMENDATIONS

- Set aside desirable sites for play space
  at the beginning of planning for new
  family-housing areas.

- Choose play equipment and landscaping
  based on a multifactor cost analysis
  including the following: use, maintenance,
  and initial cost.

- Use life-cycle costing as a better and
  more accurate indicator of actual cost
  than an initial price tag.
WHEN PARENTS ARE UNABLE TO SUPERVISE THEIR CHILDREN OR "OVER-SEE" THEIR OUTDOOR PLAY, CHILDREN SHOULD STILL HAVE THE OPTION OF OUTDOOR PLAY OPEN TO THEM. CERTAIN PLAY TYPES AND PLAY AREAS REQUIRE ROLE MODELS AND ADULT MANAGEMENT OF EQUIPMENT AND MATERIALS. THEREFORE, SOME PLAYGROUNDS MUST BE STAFFED WITH ADULT PLAYLEADERS.

The Department of the Environment (1973) of England advocates staffed play areas, saying the following:

> Half a child's intellectual growth will have been established by the fourth year. It is during these years that the child needs rich opportunities for play and for language development. (p. 91)

Galambos Stone (1970) also urges:

> We plead for the sensitive supervision of children because we have so often seen the boredom, destructiveness, danger and abuse that emerge in its absence. (p. 47)

A study done by the Department of the Environment (1973) of England showed that in one play area, one third of the activities going on depended on having an adult playleader. On another play area studied, the percentage of children involved in passive activities dropped and the percentage involved in "constructive" activities (e.g., arts and crafts) climbed drastically when a playleader was added. Further, the number of children using the playground increased while the playleader was there and dropped again when the playleader left.

A type of play area which requires a special playleader is an adventure play area. Harvey in Bengtsson (1972) says:
Whether pre-school children come alone to the playground or with older children, it is important to have a member of staff qualified or experienced to work with younger ones. As in all play schemes, the quality of the work will depend on the sympathetic understanding of the staff. The better the insight they have into the world of children, the more valuable their work will be. Perhaps the youngest children, unable to express themselves in words, are the ones most difficult to understand and most in need of help. (p. 54)

All sources on adventure play agree that a playleader (possibly with other adult help) is essential. As to the qualities of this person, Lady Allen in Pollowy (1977) says:

He or she must be a mature person who provides the background for the children's own initiative and who is willing to act rather as an older friend and counsellor than as a leader. (p.

The American Adventure Play Association (1978) advises that education is not really an important factor in fitting an individual for playleadership:

Generally, experience in a number of related areas and/or the personal qualifications of the individual were considered to be far more important than education in the formal setting. (p. 20)

Lady Allen (1968) gives caution in regard to the selection of a playleader:

Only rarely do the trained youth leaders or school teachers feel at home in so unorthodox a situation. Perhaps they have too much to unlearn before they can begin. (p. 56)
PLAYLEADERS

SELECTED PLAY AREAS SHOULD BE STAFFED WITH ADULT PLAYLEADERS.

RECOMMENDATIONS

- Outdoor spaces connected to the child-care facility should be easily supervisable by child-care staff. Outdoor play connected to child-care centers should always be staffed and available for children. Emphasis on "drop-in" use is applicable for military base facilities.

- Adventure play areas must be professionally staffed whenever they are open.

- Other play spaces should be staffed only on the basis of need. Most areas near housing will be naturally supervised by parents and other adults in the area.

- Staff should be chosen on the basis of experience and personal qualities rather than educational degrees acquired.

- Special "one-time" staff to travel from play area to play area to do storytelling, puppet shows, etc. outdoors may be considered as part of the budget for play area staffing.