

INDIVIDUAL TECHNICAL ASSISTANCE REPORT

In Response to a Request for Technical Assistance

By the

Seattle, Washington, Law and Justice Planning Office

November 2, 1973

NCJRS

DEC. 1 1976

ACQUISITIONS

Prepared by:

Public Administration Service
1313 East 60th Street
Chicago, Illinois 60637

MICROFICHE

(Per Contract J-LEAA-015-72)

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I. PRELIMINARY INFORMATION

A. **Consultant Assigned:**

Robert Obenland, Consultant
Environment Psychology
Champaign, Illinois

B. **Date Assignment Received:**

September 14, 1973

C. **Date of Contact with LEAA Regional Coordinator:**

October 3, 1973

D. **Dates of On-Site Consultation:**

October 8-12, 1973

E. **Individuals Contacted:**

The following is a partial listing of those individuals contacted during a five-day technical assistance contract with the Public Administration Service; others not listed include approximately 30-40 public housing residents and line staff of the Seattle Police Department.

Mr. Phillip Allen
Manager
Rainier Vista and Holly Park Housing Complexes

Mr. George Beyer*
Seattle Housing Authority
Community Organization Specialist

Mr. William Brown*
Law Enforcement Planner
Seattle Law and Justice Planning Office

Mr. William Budd
Mainstay Program
Seattle Public Housing Authority

Mr. Arthur Butler
Resident, Rainier Vista
Rainier Vista Planning Committee

Mr. Leon Conley
Community Worker
Holly Park
Seattle Public Housing Authority

Ms. Ethel Corbin
Resident, Rainier Vista
Member of Rainier Vista Planning Committee

Mr. Len Dawson
Architect
Ted Bower, Architect and Associates

Mr. Herbert M. Edwards
Assistant Executive Director
and Director of Management
Seattle Public Housing Authority

Ms. Delores Etres
Rate Reduction Coordinator
Seattle Law and Justice Planning Office

Mr. Ed Good
Community Crime Prevention Program
City of Seattle

Lt. Grovener
Georgetown Precinct
Seattle Police Department

Mr. L. B. "Kemper" Haas
Director of Maintenance
Seattle Public Housing Authority

Mr. Greg Hagans
Neighborhood House Staff
Rainier Vista

Mr. Bob Heath
Community Worker
Resident Highpoint Housing Complex

Mr. Richard Keber
Resident and Member of
Rainier Vista Planning Committee

Mr. Dennis Loeb
Grant Administrator
Seattle Law and Justice Planning Office

Mr. William Long*
Manager
Rainier Vista Seattle Public Housing Authority

Mr. Bob Makus
Kijana Youth Worker
Neighborhood House Rainier Vista

Mr. William Notaras, Architect
Joyce Copeland Vaughn and Notaras
Architecture and Urban Design

Naomi
Mainstay Program
Rainier Vista

Mr. Kim Proctor
Law Enforcement Planner
Law and Justice Planning Office

Mr. Ronald Quist
Grant Administrator
Seattle Law and Justice Planning Office

Miss Donna Shram
Researcher and Evaluator
Seattle Law and Justice Planning Office

Mr. Phillip Sherburne
Director
Seattle Law and Justice Planning Office

Ms. Eva Starrett*
Community Worker and Resident
Rainier Vista

Mr. Elmer Voshall
Resident and Member
Rainier Vista Planning Committee

* While many people interrupted busy schedules to render assistance on this project, particular thanks should be accorded to these individuals.

II. STATEMENT OF THE PROBLEM

A. Problem as per Request for Technical Assistance:

Seattle has a particularly difficult crime problem in its five public housing developments. The Housing Authority is planning a large-scale remodeling program in which resident safety has a major role in the scheme. Assistance was requested to review the remodeling plans in order to maximize resident safety.

B. Problems Actually Observed:

As stated.

III. FACTS BEARING ON THE PROBLEM

See attached Consultant's Report.

IV. DISCUSSION OF POSSIBLE COURSES OF ACTION

See attached Consultant's Report.

V. RECOMMENDED COURSE OF ACTION

See attached Consultant's Report.



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CONSULTANT'S REPORT

seattle public housing

"To the non-architect, it may be surprising to learn that the form of the physical environment can evoke behavioral attitudes and responses from both inhabitants and outsiders and can set a framework for a life-style which by its very nature w'll create a buffer against intrusion while insuring its intensive use. In its most primitive form, physical design has the capacity to limit access and activity. As a simple illustration, a T-shaped intersection in a corridor allows a turn to either the right or the left; an L-shaped corridor turning to the left simply does not allow consideration of a turn to the right. There is no question here of a perceived restriction of choice by the user: the path of movement is finite and complete. This is, of course, a very primitive example of the capacity of architecture to delimit activity and paths of movement. The evidence we have been compiling over the past two years of study indicates that by delimiting of paths of movement, by circumscribing areas of activity and zones of influence, and by providing for the visual surveillance of an area, one can create in people--inhabitants and strangers--clear feelings as to the function of a space and who its users are intended to be." ¹

Three public housing complexes located on different sites were studied with a focus upon environmental factors supporting criminal behavior. Each of the three sites, Holly Park, High Point and Rainier Vista are comprised of similar units with common design determinants and behavior patterns. Each complex is presently undergoing modernization in a demonstration area, though the methods, design concepts, and present phase within the modernization process vary significantly. Holly Park and High Point housing areas are each being modernized by architectural firms working closely with resident planning councils. Changes and design modifications as proposed for these two areas appear to be such that changes will contribute significantly to both an increased quality of life and a potential reduction of criminal events.

The public housing complexes of Rainier Vista, Holly Park and High Point are each presently comprised of duplexes and fourplexes arranged around curvilinear cul-de-sacs. The units are all of similar design and with a few exceptions apartment exteriors have not been modified. Thus, the initial image conveyed is one of uniformity and anonymity. Site design and unit location does not define personal private space outside of the dwelling unit perimeter. Challenging of intruders or passersby rarely occurs. This appears to be due to a great extent to site design.

The most pervasive impression obtained from approximately 40-50 individual interviews with residents of Rainier Vista was one of resident powerlessness and an ability to affect security or safety. Many residents claimed to not know the names of their immediate neighbors. Shades and drapes were completely drawn throughout the day almost without exception. Adult movement patterns were primarily traffic from dwelling unit to automobile, and undefined play areas and lack of equipment resulted in apparently random games of fantasy for young children.

Such descriptions certainly do not apply to Rainier Vista alone nor to public housing in Seattle alone, these patterns are found almost universally within public supported low-income dwelling areas. The social, economic and

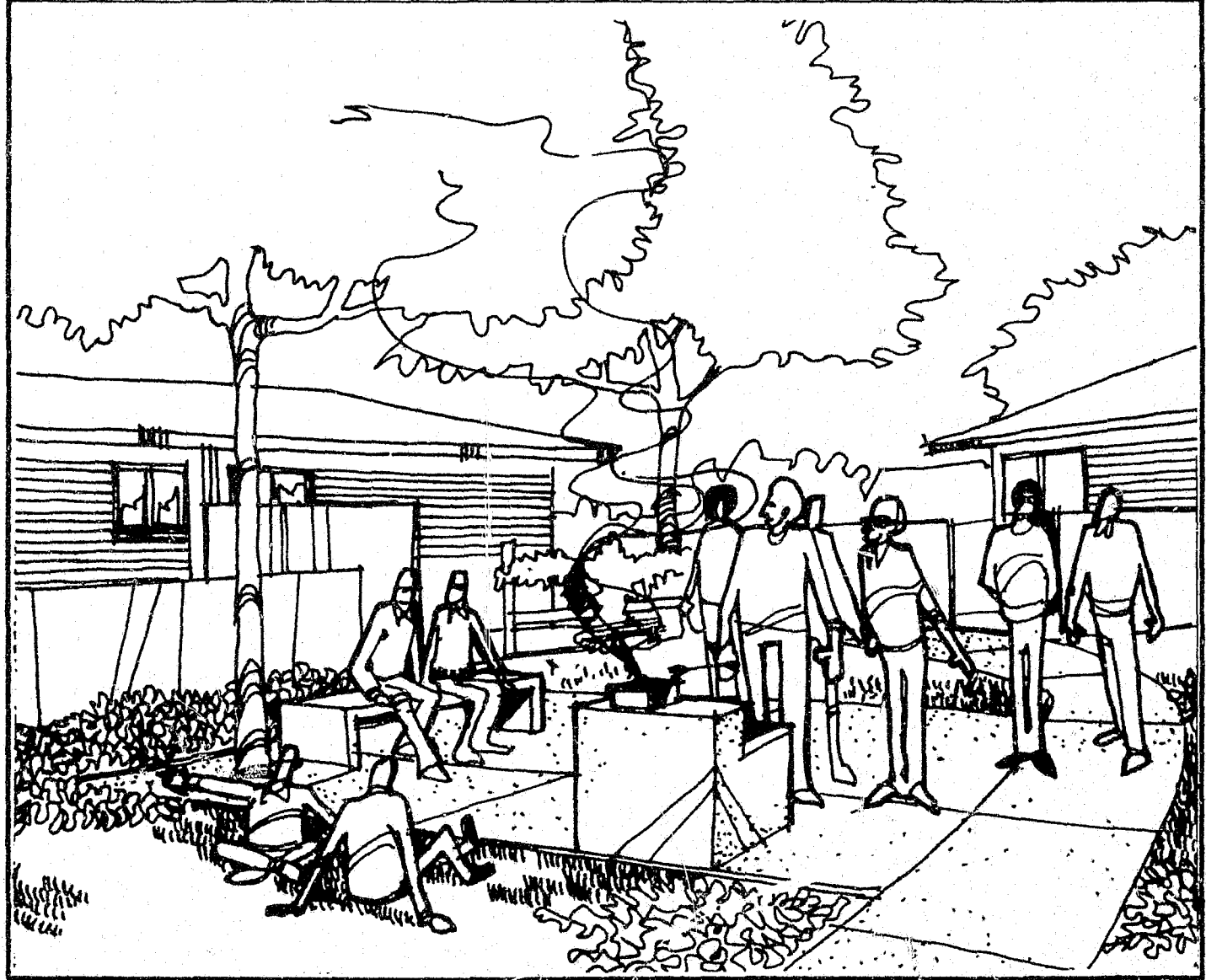
political variables affecting conditions on low income housing are well documented; rather than addressing these issues, attention here is placed upon environmental variables.

The following are general design determinents utilizing the principles of "defensible space" ² and "normative advantage" ³ and are intended not as critique or comment upon current modernization plans by architectural firms but rather concepts that may be architecturally expressed in any number of ways. In each case, the number of alternative solutions is almost infinite, it is the combination of concepts and financial constraints that determines feasibility. These concepts are not cumulative in their effect upon behavior or resident perceptions; nor is their expression in architectural form additive; some may in fact imply contradictory architectural responses.

Drawings are not to scale and are not intended to be representative of existing housing areas; their inclusion is intended to give graphic explanation of verbal concepts.

if: criminal activities are to be challenged by residents and increased risk of apprehension perceived by the potential offender...

then: the concepts of community cohesion, neighborhood participation and resident interdependence emerge.



2 if: community and resident deterrent responses to crime are to be encouraged...

then: broad resident participation in planning and evolutionary processes within the neighborhood should be solicited, encouraged and required.

3 if: community security integrity is to be supported and community participation encouraged...

then: police response and responsibility in public housing areas must be attuned to the particular needs of low-income residents.

An effort should be directed toward increasing positive police community interaction. Negative perceptions of police by residents can be reduced if police programs are viewed as contributions to general community welfare.

Increased community understanding of burglarly prevention techniques and community interaction can be generated by the implementation of a property identification program. Rewards should be viewed in terms of community involvement as well as direct recovery of stolen goods as a result of program effectiveness.

Community liaison officers stationed on a bi-weekly basis in dwelling units and coupled with group education seminars can contribute toward increased respect of police programs and personnel.

Orientation and training programs for line officers should include walking and briefing tours through the housing areas, both to acquaint officers with street layout and apartment location and to stimulate community interest.

Decreased response time for emergency calls is one objective measure of program effectiveness, a goal of 5 minutes total response time should be obtainable; based upon 30 sec. call answer time, 1 minute delay and dispatching time and 3½ min. patrol response.

4 if: community and individual deterrent responses to crime are to be encouraged...

then: ideal neighborhood organization should be defined and articulated through an architectural structuring of community boundaries.

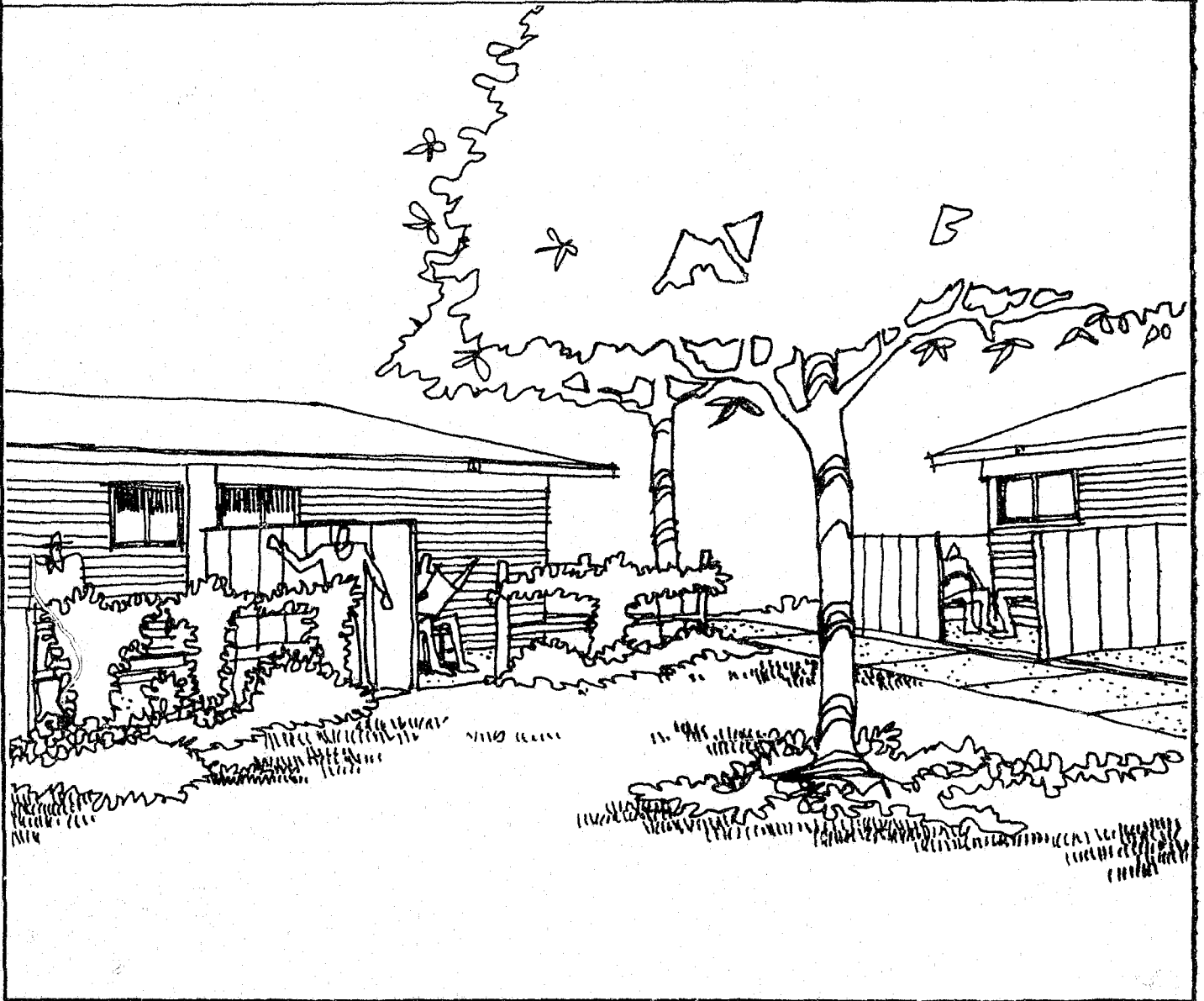
5 if: community surveillance and visibility of potential intruders is to occur...

then: the concept of finite and understandable circulation patterns and limited access points emerges.

6 if: community security integrity is to be supported...

then: juxtaposition with surrounding areas and context should discourage interface with high crime generating elements and encourage linkage with potential normalizing community variables.

if: community and individual deterrent responses to crime are to be encouraged...
then: image and connotation implied by dwelling units and site must allow and
support individual expression.



8 if: community and individual deterrent responses to crime are to be encouraged...

then: resident participation activities should be supported by community facilities decentralized for maximum interface and visibility within the population.

9 if: community and individual response to crime is to be encouraged...

then: major pedestrian circulation paths within the community should culminate or pass through activity areas or destination points.

10 if: community and individual responses to crime are to be encouraged...

then: internal vehicular circulation paths should eliminate high speed movement and foster driver visibility of activity and recreational areas.

11 if: resident surveillance of public areas is to occur...

then: activity and recreational areas should be of such dimensions that each adjacent dwelling unit resident can clearly see one safe path through the space; and should be of such proportions that the maximum number of residents have maximum observation capability.

12 if: community understanding of property rights and the ability to challenge an intruder is to be supported...

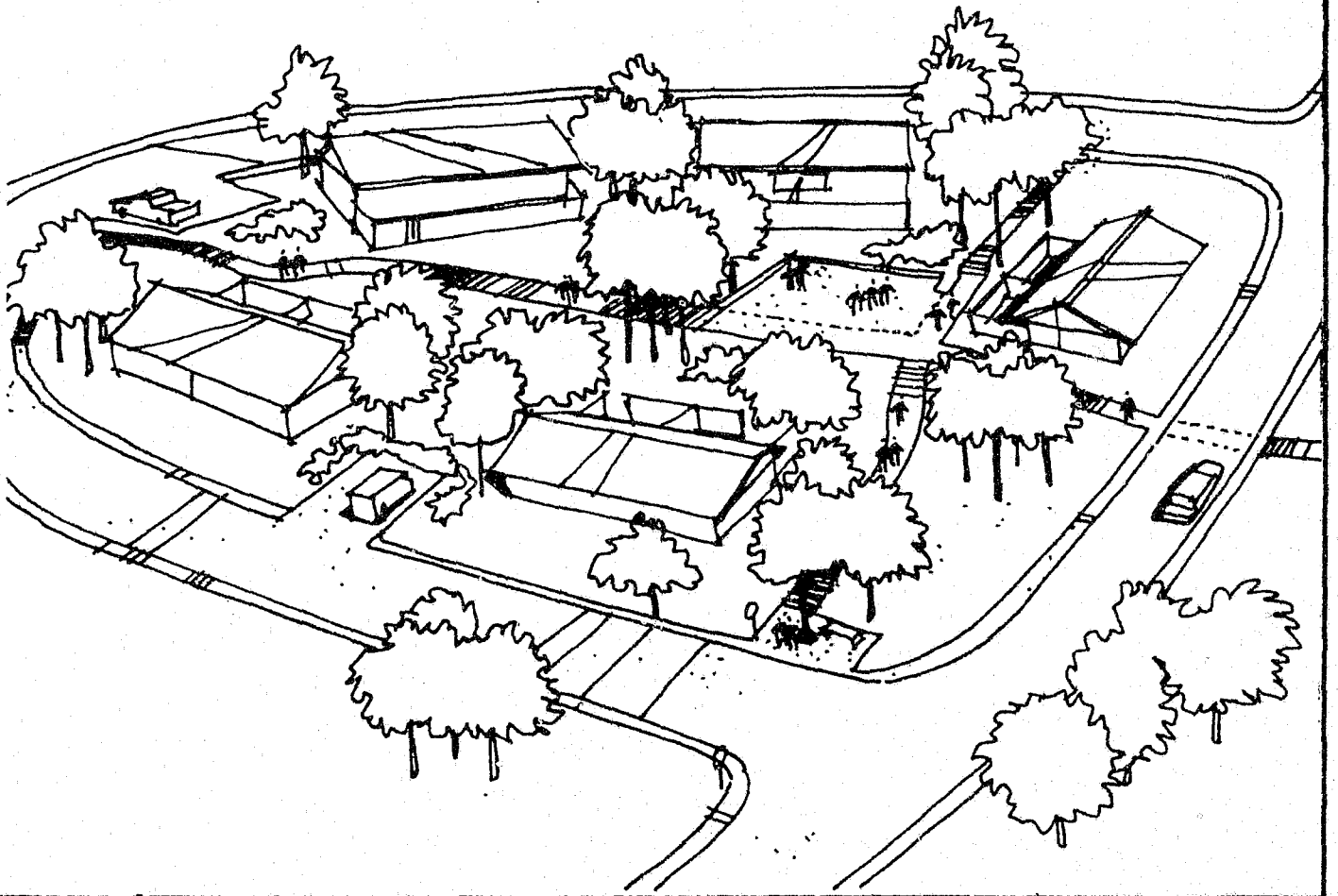
then: a hierarchy of spaces ranging from public and ambiguous - to private and defined should be provided to give physical support to the broadest range of interaction modes.

13 if: individual and community surveillance is to increase perceived risk by the potential offender...

then: a hierarchy of lighting contexts and intensities should accompany and articulate sequential movement through public to private space.

if: interdependence and resident awareness of intrusion are to exist at an operational and functional level...

then: the concept of "dwelling unit clusters" interrelating 8 to 15 families emerges as the optimum scale for intervention to occur.



15 if: resident awareness of preventive measures and individual knowledge of possible effects is to be encouraged...

then: continuous police educational and community services should occur within the dwelling unit cluster.

16 if: the cluster is to be maintained as a secure entity...

then: a visual control of circulation paths and cluster entrances should be optimized for each dwelling unit resident.

17 if: the concept of cluster is to be reinforced...

then: the physical and visual location of vehicle parking should express the interdependence between residents.

18 if: the concept of cluster is to be reinforced...

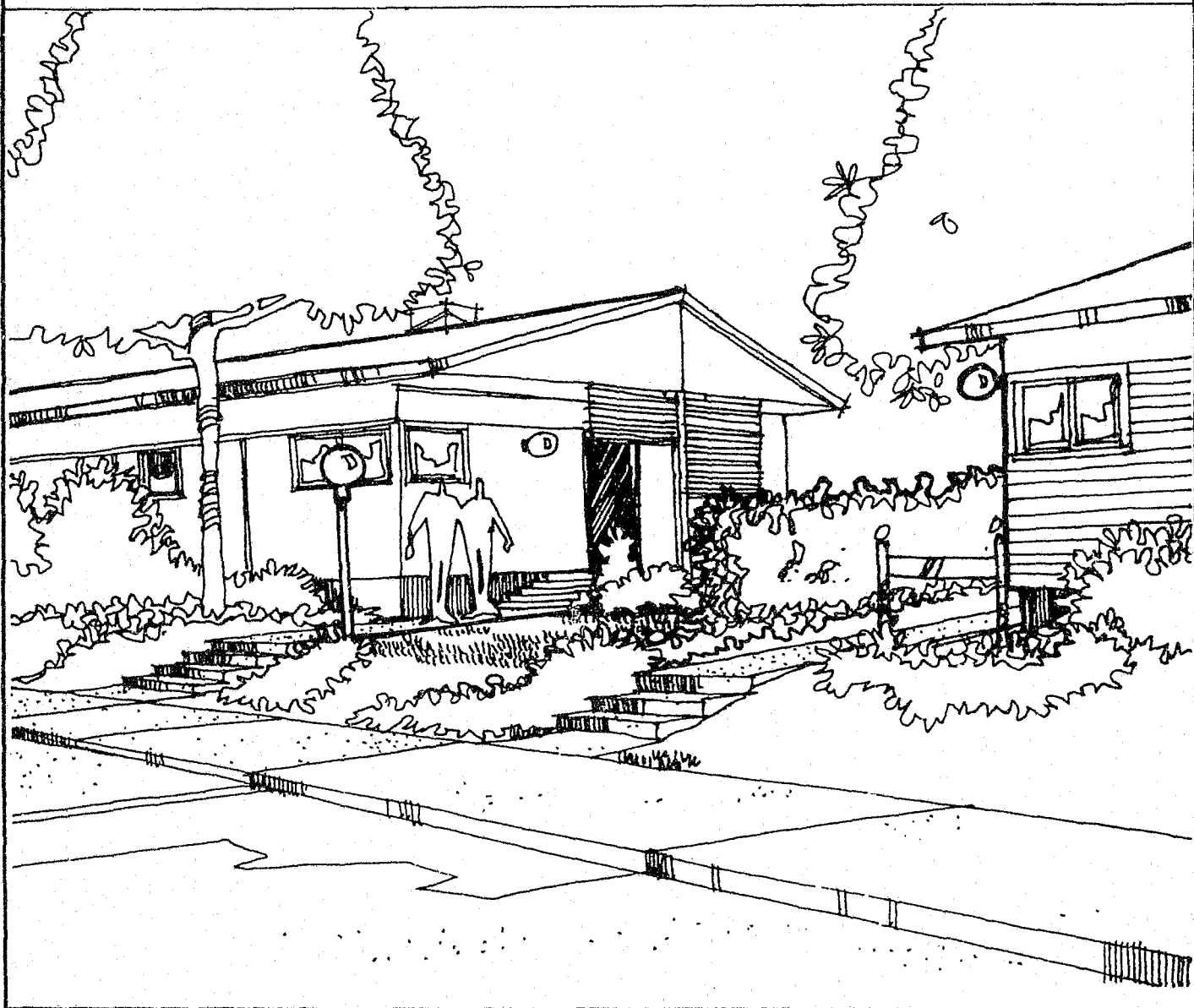
then: each cluster should have and support a specific semi-public activity or recreation generating facility.

19 if: privacy as well as participation is to be available to residents...

then: the security of individual dwelling units necessitates target hardening of private space perimeters.

if: resident observation of the cluster units is to be fostered...

then: lighting at unit entryway and of the cluster semi-public space should be provided.



21 if: perceived risk by the burglary offender is to be increased...

then: private space must be extended beyond the limits of dwelling unit walls and should be clearly defined as personal space.

22 if: perceived risk by the burglary offender and an increase in perceived residential safety is to occur...

then: recessed unit entryways should be avoided and clear definition of each entryway should begin away from the unit boundaries.

23 if: resident involvement in crime reduction and personal safety is to be maintained...

then: telephone communication to and from each dwelling unit emerges as a fundamental necessity.

rainier vista

"The public housing projects in Seattle uniformly have some of the highest crime rates in Seattle. A resident of a census tract that contains a public housing project is approximately two times more likely to be a victim of crime than the average Seattle resident. The crime that occurs with greatest frequency is burglary. It is estimated by administrators of the housing projects that only one third of the crimes that occur are subsequently reported to police. If this is the case, then the victimization ratio of public housing residents to the average Seattle resident becomes approximately 4 to 1." ¹

Rainier Vista is a Seattle Public Housing complex located in the Southeastern area of Seattle. It contains approximately 500 dwelling units in 200 building structures. The area is divided almost in half by a main north-south traffic artery, Empire Way. The character of this strip-zoned street to the north is mixed commercial and light industrial and this area supports numerous drive-in restaurants and quick service commercial establishments. A large volume of traffic passes through the center of the housing development and a bus stop is located at the intersection of Columbia and Empire. Dwelling units are wood frame, slab on grade and are either duplex or fourplex units. Most units have only one entryway located either at the end of the unit or facing the street. Parking spaces are clustered in groups, with room for from 2 to 10 cars. In the Southeastern portion of Rainier Vista is located a Community Building housing the manager of the complex, housing authority staff and space for community activities. Located nearby is the complex maintenance building, presently being utilized as a workshop and storage area. To the south of this area, open space and vacant land is the contemplated site for a gymnasium and recreational facility. The area is surrounded by residential structures of primarily low, and moderate income families.

While the sum total of the present environmental image and community structure is certainly one of low-income apathy, the potential exists for this area to become an example of public housing responding positively to community needs.

Recommendations:

- Regardless of the specific design modifications undertaken, an essential component of criminal justice is an ongoing assessment and evaluation process. Evaluative procedures are necessary for maximization of criminal intervention efforts.

The opportunity for a pre-test/post-test research paradigm exists at Rainier Vista; an operation that is often neglected in construction or modification processes. (Similarly Holly Park and High Point might also view pre- and post-test research as an invaluable tool in the cluster demonstration program.) Sufficient units are to be modified and significant units remain such that the control of social variables can be facilitated.

The evaluation might focus upon the individual rather than the environment, thus creating a mini-cohort study, covering time in old units, construction time, recently moved residents and long term residents in the modified units. Variables ought to be both real criminal events as measured by reports to the housing authority and police, and perceived safety and security. Measurement techniques such as the "semantic differential architectural scales," "fear maps" and "environmental thematic aperception testing" might initially be considered for possible test instrumentation. In addition, "behavioral mapping" and "unobtrusive measures" have in the past been helpful to architects and psychologists when attempting to understand relationships between environment and behavior. Computer facilities and the utilization of factor analysis or regression analysis when social and demographic data are included might also present an opportunity for environmental research that has not yet been conducted in scattered unit housing areas.

The institution of a minimal research effort should be considered essential to the long-term reduction of crime in Seattle Public Housing. A research effort can also be an opportunity for increased community interaction. An organization such as the Resident Planning Council should be considered an ideal vehicle for assistance in data collection and for generating interest in community processes. One final statement should be made, relative to "over-study" in low income areas; it has often happened that research is carried too far when low income families are "subjects." This need not be the case if research is perceptual in nature or if social variables are minimized. Initial response during the five day assistance period in fact indicated that residents are eager to participate in interviews on an individual basis.

- The new gymnasium and community activity spaces should be reviewed with emphasis placed upon decentralization of facilities and/or site location.

Significant advantages can occur when optimum interface with the community is pursued. First, traffic increases, thus intrinsic surveillance increases. Second, maximum interaction and extended interrelationship between relatively distant neighbors can be stimulated. Third, large congregations of juveniles and young adults can be dispersed and emersed within the community. Fourth, intensification of cluster resident relationships can be forstered and "mini-community" pride increased.

- The new gymnasium and community activity spaces should be reviewed with respect to user needs.

Needs of the elderly and the adult population should be viewed as well as the needs of the juvenile. Factors to be considered for each group are alternative facility availability, leisure time to occupied time ratios, interest in participation and potential for increased education and self-improvement.

- Renovation fund allocations available for the existing community building should be reviewed with respect to potential use for dwelling unit conversion to community space or to street closure and creation of recreation or activity facilities.

Residents currently have specific ideas for community activity facilities, recommendations made include auto repair, crafts shop and decorating classes. Such suggestions may more accurately represent the broadest spectrum of community interest. Consideration to these concepts should also include modification of pedestrian pathways to promote better surveillance, and increased lighting of a residential rather than high intensity character.

- Increased cooperation and understanding by both residents and police is an essential component of any effort towards the reduction of crime. Resident fear or lack of trust of police must be overcome. Community service officers or uniformed Sergeants with patrol officers could begin an education program for burglary prevention. Such a program could be most effective at the cluster level, facilitating better police-community relations but also fostering group continuity between 8 - 15 families. Property identification programs instituted nationwide have been found to reduce crime by perhaps only 5 - 10 percent but more importantly for Rainier Vista such a program could encourage better police community relations, increased awareness of burglary problems and promote positive interaction between residents. Although perhaps not now or yet necessary the stationing of an officer in dwelling units has proven to be an effective method for increasing

community confidence in police services. Requirements are of course that the officer be aggressive in community contacts and more importantly, optimistic concerning police and community ability to reduce criminal events. Response time to emergency calls should be no more than five minutes. Officer familiarity with streets and apartment locations should be an essential part of preliminary training; such training essential from the police service response time standpoint, may in the form of walking tours or visits increase police-community understanding.

- A reevaluation of pedestrian and vehicular circulation paths and patterns should be undertaken. This study should focus upon creating a more understandable movement flow, as well as a flow by and through small group activity areas.

Street closures, the creation of activity within closed street areas, the alteration two-way to one-way traffic are alternatives which should be considered. Street furniture including benches, low-level lighting, children's play equipment, planters, chess and checkers tables of concrete, shuffleboard and recessed rest areas can create activity zones from which, and within which, natural surveillance and communication can be increased.

- Consideration should be given to the demolition or removal of 10 - 15 building units at the Rainier Vista Complex.

Although it is felt by some that density is a significant problem, Rainier Vista does not display characteristics of dense living conditions. At the same time, there is significant research and opinion that density per se may not adversely affect family structure or normative behavior. Rather, the purpose for elimination of units is based upon a need for increased territorial definition of semi-public spaces. The elimination of a strategic unit coupled with site modifications can significantly affect defensible territory. For example, the removal of Apartments

107 - 108 on Sears Drive South would present the opportunity to create a community space extending from the center of the Abelia Court South Complex to Sears Drive. In this instance, units 66, 72, 104, 106, and 101 have direct view onto a community space, further surveillance and interaction might be encouraged by creating slow one-way traffic on Abelia Court. Thus, everyone must pass the Recreation area when entering and leaving Abelia Court and two-way vision (of the recreation area and of vehicular traffic) is fostered. Relocation of entryways by means of a 6 x 8' "mudroom" structure could architecturally include units 77, 96, 105 and 116 in the cluster. A children's play area or an adult barbeque may each be appropriate but the decision ought to be made by a majority of Rainier Vista residents. These concepts need to be applied not just on an immediate need basis but for all of Rainier Vista. Such planning should initially be of a general nature, until activity space locations and articulation patterns are defined. Specific decisions concerning texture landscape and other architectural modifications can be completed on a cluster by cluster basis as funds become available. The activity space must then be defined in terms of function. Such definition comes from usage singularity, usage significance and circulation pattern structure. The decision of what this space is to be must ultimately be derived from resident behavior. Thus, at the initial stages although architectural manipulations support or inhibit usage patterns and behaviors they do not maintain them. Residents both of the cluster and of the complex should be the significant input for determining use and function.

- Modification of dwelling unit entryways should from a design standpoint reinforce the image of "transition" from public to private space. The currently abrupt change occurs at the steps, immediately prior to the outside doorway.

The attempt here is to communicate directly to the resident, neighbors and potential offenders that "out of bounds" areas begin before the apartment door. As a result observation and potential challenging of intruders can occur before the last barrier (door) is encountered.

Architectural techniques for defining transition include but are not limited to:

1. Change in texture, for example, public sidewalks may be concrete while private walkways may be brick.
2. Change in level, for example, sidewalks of a private nature may be one or two steps higher or gradually slope upwards to the doorway. (It is recommended that there be an increase in height rather a decrease when transition is made from public to private.)
3. Increased lighting, at the entryway or prior to entryway. Lighting of a residential nature might be added at a distance of about 20 feet from the doorway located to focus visibility on the private walkway.
4. Landscaping, near or around the transition area to further define private territory. Shrubbery or flowers, (maximum height two feet) should be available, perhaps at first from a community distribution center so that initially those who cannot afford and who strongly desire landscape materials can begin to define territory.
5. Fencing of a transparent nature, two or three feet in height, might be used sparingly according to individual preference. Perhaps 20 linear feet might be made available again initially on an individual basis for territorial definition.
6. Extension of building structure, might be a long-term objective if funds can be made available. This concept would involve an extension of the building structure out from the present perimeter. An area perhaps eight feet by six feet would serve both as an extension of the perimeter for security purposes and as an added functional space from a design viewpoint. The exterior door would be relocated to the outside of the new space while an interior and secondary security door would be at the present door location. This eliminates immediate entry into the living

room area and creates a transition "mudroom" or hallway. Entry through the exterior door thus would not imply entry into the apartment space proper added surveillance capability is created by the thrusting of the doorway away from the unit; while deterrent time is gained by the addition of one more locked barrier.

■ The perimeter of each unit, regardless of the existence of "defensible space" must be secure. The concept of "target-hardening" implies first increased problems for the offender when attempting entry, and second, increased time for observers or residents to respond and alert assistance. The Units of Rainier Vista with few exceptions have one doorway and approximately 10 windows per unit. At the present time, these are needlessly vulnerable to unauthorized entry.

Future doors installed in Rainier Vista should meet the following requirements:

1. Doors should be solid core wood of 1 3/4" minimum thickness.
2. Doors should be operated by keyless passageway or with dead-latch knob sets with protective baffle.
3. Doors should be locked with auxiliary deadlocks having hardened cylinder guard and thumb turn, and having a minimum throw of 1" for the dead bolt.
4. Deadlock should be single cylinder and never "double cylinder additional security" type.
5. Keys should be stamped "do not duplicate" and locksmith techniques for non-duplication should be applied. Keys should be available only after a deposit of a significant amount is paid. Actual key loss during resident tenure should not be penalized but emphasis should be placed upon returning keys after leaving the dwelling unit.

6. When new construction is involved, 2 x 4 studs should be located on the latch side of the door frame and screws of a length sufficient to anchor deadbolt and deadlatch receptacles to the 2 x 4 studs should be used.
7. Exterior door hinges should be located on the interior side of the door frame, but when necessary, temporary precautions to eliminate door removal may be made as follows: Remove one hinge screw from each side of the hinge mechanism. (Screws removed should be directly opposite each other.) Replace a long screw or doubled headed nail into jamb leaf and allow one half inch protrusion. Drill out screw hole in opposing hinge, thus when closed, the long screw will be inserted in the drilled out hole, preventing door removal. Repeat procedure for bottom door hinge.

Future windows frames should either be casement or double hinge type of wood construction. Double hinge windows can be secured with key operated latches such that the window must be entirely broken to gain entry (such devices are a fire hazard); or a hole may be drilled allowing for insertion of a pin. This may be achieved as follows: A hole is drilled at a slight angle through first the top of the bottom window and then through the bottom of the top window. A smooth pin is inserted for windows in use, screws may be used for these windows not necessary for fire escape. Casement windows are the simplest to secure although not the least expensive. Latching should be positive and the crank or operator should have no excess "play". Hardware may be expected to last approximately ten years, worn hardware must be replaced.

- Communication is an essential component of any security deterrent system; telephone or intercom linkage between neighbors, between resident and management, and between residents and police-fire services should be a required utility service, provided where necessary with the assistance of public institutions or agencies.

Approximately one-half of the residents of Rainier Vista do not have telephone services. Residents often reported an inability to contact authorities when problems were visible in adjacent dwelling units. Those who presently do not have telephone service include single female households as well as elderly individuals. Contact with Bell System consultants indicates that sliding scale deposit requirements are intended as a measure of potential ability to pay. Thus, while some pay no deposit for the telephone unit, some residents of Rainier Vista have been asked to pay as much as \$40 or more as a security deposit. Alternative systems may be possible, however, Bell System marketing consultants have indicated the possibility of an intercom system between units and linked with the 911 emergency number or housing authority management. Additionally, each individual unit might have the capability to be linked with the national telephone network. Of significance here too, relatively immobile elderly or those with speech impediments can have devices designed for the elderly or handicapped included or attached to their telephone unit. The cost of such a system as quoted for the central Illinois area is far below any alarm system presently available, and drastically reduces the potential for false alarm.

The precise method of funding is perhaps both a legal and a political issue, however the necessity for communication to and from each unit is an essential security component, thus significant effort should be placed upon acquiring intercom or telephone service for each dwelling unit in Rainier Vista.

modernization

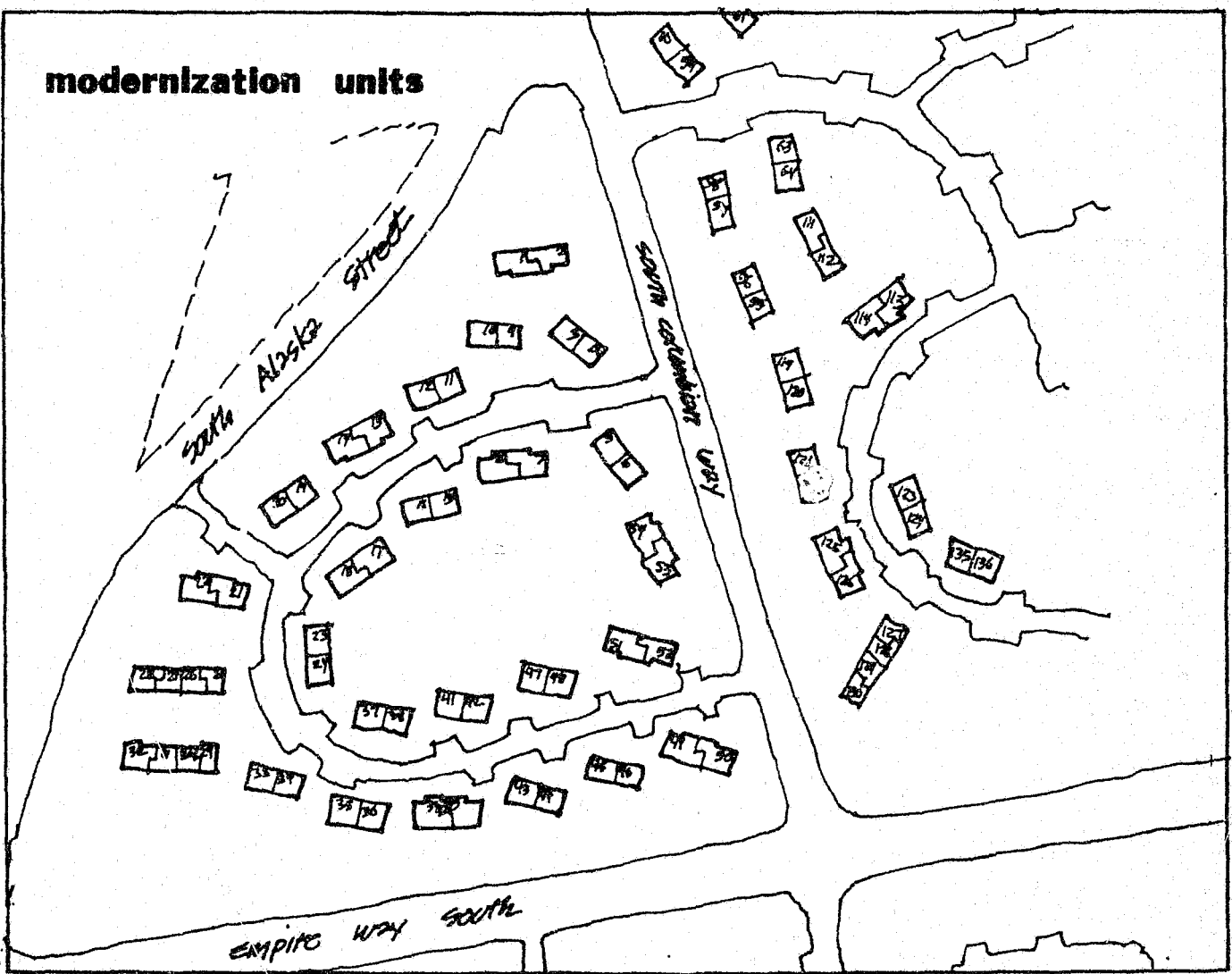
"I would next like to refer to detection devices. Perhaps in your police work, you have had people call and ask you when somebody was going to cut off that bell. "What bell?" "The one in the back that has been ringing for two hours."

Local alarms go off so often that people do not pay much attention to them anymore. They do not know if an alarm has been triggered by a burglar or by the teenager who has forgotten to turn it off when he arrived home."¹

Seventy-five dwelling units within the Rainier Vista housing complex are presently undergoing modernization and renovation. Funds for the modernization program made available by the Department of Housing and Urban Development are to a large extent being utilized for upgrading of the interior living conditions. However, recent resident focus has been upon the need for increased security and safety within the complex and within the dwelling unit. The Resident Planning Council in particular has begun to take an active role in shaping community planning and direction. The problems of burglary, forcible entry and possible resident-offender confrontation within the apartment unit have been increasingly viewed as those problems which the Public Housing authority should be addressing. The recent and present thrust within the planning council has been a request for a burglar alarm system. Their long hours of research in this area has resulted in a proposal for a sophisticated two-zone alarm system. This is to be composed of first, a perimeter zone with external and internal shut-off mechanisms, activated by door or window entry or movement and second, an internal system operated with pressure sensitive pads near or under valuable items. This second system too is to have deactivating mechanisms both internally and externally. Resident opinion was almost evenly divided as to the desirability of audible or silent alarm.

A random sample of about 40 residents was selected to measure the representativeness of tenant opinion voiced by the planning council. This sample included elderly, students, white, minority, single individuals and those married with families. (The sample selection process, every fourth occupied dwelling unit by number, eliminated any possibility of skewed response by location, and the variety of individuals encountered, lends support to the effectiveness of the housing authorities' racial mix and distribution policies.) The results of these interviews can be summarized as follows. A significant climate of fear does, in fact, exist within Rainier Vista, although individuals and more importantly, perhaps enclaves or clusters of residents are significantly more satisfied with their safety than most. The vast majority of the burglary attempts were through windows and doors although there have been in Rainier Vista reports of entering through attic crawlspace openings in some fourplexes.

modernization units



The seventy-four Rainier Vista demonstration units are composed of 54 dwelling units in 25 building structures on the southern side of South Columbia Way and 20 units on the northern side. The first group of 54 units is bounded by South Columbian Way, Empire Way, and South Alaska Street. This area is geographically the most isolated and is presently undergoing modernization and renovation by the maintenance staff of the Seattle Public Housing Authority. Modernization has

essentially addressed the problems of deteriorating apartment interiors. Features included within the modernized unit are such items as new heating systems, additional appliances, new flooring and painting. New windows and doors are also being installed. Resident opinion has been unfavorable toward the security problems apparently accompanying the new windows and have voiced this opinion with Seattle Public Housing Authority. Approximately 200 residents have viewed the model units available for show and general reaction was favorable. Of those residents who were unfamiliar with the resident planning council's request for an alarm system, most responded with "stronger doors" when pressed for an answer to the burglary problem.

At the present time, approximately \$7,025 has been committed to the interior modernization program, and while initially all monies were allocated to interior renovation it is now apparent that the resident planning council is desirous of increasing unit security. Funds available for this effort are approximately \$500 per unit or \$37,000 for the 74 unit modernization cluster. Defensible space concepts are of such a nature that early planning and awareness can include modifications for security concurrent with modification of increased amenities. However, at this point in time, \$500 only is available and resident and Public Housing Authority needs are immediate. The following specific recommendations are therefore made under the following assumptions:

1. That resident need for increased unit security is immediate and essential to physical and emotional well-being.
2. That \$500 is presently available on a per unit basis and should be directed entirely toward increased security.
3. That further funding is a possibility, but that no funds will be available in the near future.

4. That research will be conducted to determine the effectiveness of a physical or social changes implemented and that the knowledge gained from such research will be an integral part of further modifications and renovation.

The following recommendations are listed in decending order. The most essential components being listed first; cost estimates basis are variable and are explained on a by item basis.

RECOMMENDATIONS:

A preface and explanation should first be made regarding one alternative approach not listed among the recommendations. Alarm systems as mechanical devices for the detection and unauthorized entry, subsequent notification of police or neighbors are almost universally recognized by police administrators as inadequate, given current technology. The spectrum of criminal behavior to which alarms are addressed and the correlation with security criteria does not make the alarm system as proposed as viable cost effective alternative. Criteria with which any alternative must be evaluated are those of both effectiveness and compatability² and are as follows:

- deterrent probability
- detection probability (sensitivity, spatial and temporal coverage)
- discrimination and identification capacity (false alarm/dismissal rates)
- alarm transmissibility
- response capacity
- reliability (system failure rates)

- survivability (susceptibility to destruction)
- adaptability (accommodation to changing threats and elusive counter-measures)
- convenience of use
- privacy incursions
- aesthetic appeal
- dependence on user cooperation
- installation feasibility
- modularity (ease of system expansion)
- availability (for purchase and use)
- safety
- repairability (ease of maintenance)

The alarm system cost as proposed has been estimated by resident planning council members as ranging from \$350 to \$500 per unit. Alarm experts contacted have judged these estimates to be accurate or perhaps low. In fact three years ago ³ the National Institute of Law Enforcement and Criminal Justice estimated for a one-zone perimeter system that initial installation costs might average \$500, and that maintenance costs would range from \$12 to \$60 per unit per month on a commercial basis. Given the existing deficiencies which can more economically be corrected the contributions made by the proposed alarm system are not sufficient to warrant the contemplated expense.

1. The Seattle Public Housing Authority should, concurrent with the occupation of the newly modernized units request that a member of the Seattle Police Department be assigned to conduct classes on burglary prevention. Classes should be conducted for approximately 15 families for each session and should cover topics of interest to the residents of Rainier Vista. Officers should preferably be presently involved with public housing sectors.

Alternative 1.

Volunteer Services: 2 hour sessions
 2 sessions per group
5 groups
 total time in field=30 hrs @ free services

Alternative 2.

Fully compensated services @ \$10,000 per year salary (time and one half)
 2 hour sessions
 2 sessions per group
5 groups
 total time in field =30 hrs. @ 7.50/ hr = \$ 225.00

2. The Seattle Public Housing Authority should retain hardware and windows which have been installed or cannot be returned. (assume 40 units in this category)

A. Each of the 40 units should have installed a deadbolt lock meeting the requirements outlined in the previous section.....@ \$25 ea.
 price per unit on an individual basis \$ 1000.00

Each of the sliding aluminum windows should have a slide bolt installed.....@ 89¢ ea.
 price per unit on an individual basis \$ 175.00

Each sliding window should be pinned such that removal from frame is impossible.....@ 25¢ ea.
 price per window \$ 50.00

2. B. The SPHA should secure for each dwelling unit for which hardware has not been purchased. (assume 35)

1 solid core 13/4" thickness wood door and 2x4 bracing for door jamb and frame.....	@ \$120 ea.
assumes labor & mat'l at union wages for med. job	<u>\$4200</u>
Passageway knob sets	@ \$5.00 ea.
mat'l only	<u>\$175</u>
Deadbolt lock ³ as described in the previous section.....	@ \$25 ea.
mat'l only	<u>\$875</u>
Wood casement windows.....	@ \$300/ut.
mat'l and labor	<u>\$10,500</u>

3. The Seattle Public Housing Authority should make available a verbal communication system for those who presently do not have a telephone within their dwelling unit. Many alternative systems are possible but for security purposes each resident should be linked with a minimum of 5 neighboring residents and with either the 911 emergency number or the public housing authority.

Intercom with potential telephone system linkage.....	100 units
	@ \$1000 and approx. \$1.00 per mo.
	per unit maintenance
	<u>\$1600 1st yr.</u>

4. The Seattle Public Housing Authority should provide the aggregate sum of the 75 units with a total of 3000 linear feet of cedar screen or pickett fencing.

.....	@ \$5.00 LF
mat'l and labor	<u>\$15,000.00</u>

- A. If political or social pressures necessitate the even distribution of fencing between residents or units, then 40 linear feet of fencing is available on a per unit basis. Under these conditions, effort should be made to define a side yard (partially enclosing side entryway) and to define a back yard (partially enclosing the rear windows. Fencing should not be placed such that blank dwelling walls are used as the third or fourth wall. As much variation as is possible should be encouraged between units.
- B. If the modernization project is being approached as a whole, and this is desirable then maximum variation between units should be evident. Again stress should be placed on defining or "protecting" the door and window areas, by locating the fencing around these areas. Some units might have as much as 80-100 linear feet of fence, while others might only have 10-20 feet. Still further variation might occur by locating fencing around walkways or by beginning to define small clusters of units.

Most fencing should be of 3 ft. height but where the distance between the fence perimeter line and the dwelling unit is greater than 20 ft. a four foot height is recommended. Fencing should be either of screen or pickett type with a 25% of the total fence area transparent.

Total cost for these four items is \$33,800.00. However, items listed under statement 2B. are only upgrading of security hardware and real expense is the difference between the new cost estimates and the old. All estimates are approximate and labor market, regional, seasonal and other variations may in some cases modify costs significantly. The estimate however does leave funds remaining. The fifth recommendation hinges upon further estimate clarification and an accurate assessment of remaining funds.

5. Funds remaining after unit renovation, target hardening, basis territorial definition and communication improvements should be allocated to the addition of amenities and activity areas which increase the potential for defensible semi-public space.

The Seattle Public Housing Authority should with the assistance and cooperation of the Rainier Vista residents begin to define potential community needs in terms of exterior or semi-enclosed facilities. Preliminary planning should define spatial or activity functions appropriate for residents. Consideration should be given to phased implementation of spaces which support 3 or 4 clusters within the major modernization area. (bounded by south alaska street, south columbian way and empire way)

This document has attempted to address several issues simultaneously. It has first on a very general and conceptual level listed some defensible space and design concepts that relate to security and crime in Seattle duplex public housing. It has second, applied these concepts to the Rainier Vista area with a focus upon realistic yet perhaps long term modifications and directions that may be fruitful when considering the reduction of crime. This document finally, addresses the immediate, real and perceived problems as viewed by the Rainier Vista Resident Planning Council and by SPHA representatives. This last task has been performed within maximum constraints. The project was undertaken when approximately one-half of the dwelling units were partially renovated or materials ordered. The need for immediate response was thus essential. Additionally, a great majority of the HUD modernization funds were expended prior to the decision to review security problems. The problem was thus one of what to do to maximize security effect and yet not restrain or restrict potential long-term efforts that might be more successful. Crisis planning is never planning and concrete recommendations made in such a context can only be shortsighted.

FOOTNOTES AND REFERENCE MATERIAL

Part I

- 1 "Environmental Design" an address by Oscar Newman, Director of the Institute of Planning and Housing, in Urban Design, Security and Crime: A National Institute of Law Enforcement and Criminal Justice Seminar, 1972., U.S. Department of Justice, 1973. p.12.
- 2 Newman, Oscar. Defensible Space., crime prevention through urban design, New York: McMillian Company, 1972.
- 3 Obenland, R.J. and Benton, F.W., Ph.D., Prison and Jail Security, Law Enforcement Assistance Administration, U.S. Department of Justice, 1973. (in press)

Part II

- 1 "Burglar Alarms in Public Housing" in Plan for Criminal Justice(Summary)1974, Seattle Law and Justice Planning Office. p.20.

For a discussion of security design and security hardware see:

"Security: everybody wants it and you can sell it with these new products." in House and Home, April 1973. pp. 116-122.

Jeffry, C. Ray, Crime Prevention Through Environmental Design., London: Sage Publications, 1971. 290 pp.

Healy, Richard J., Design for Security., New York: John Wiley and Sons, Inc., 1968. 300pp.

Scarr, Harry A., Patterns of Burglary, NILE Grant no. NI 70-064, National Institute of Law Enforcement and Criminal Justice, United States Department of Justice, 1971.

Residential Burglary and What to do about it, Crime Prevention Bureau, Springfield Police Department, Springfield, Illinois

Federal Standards for Security Devices Used in Federal Insurance Program, Title 24, Chapter vii, Part 1932. "Protective Device Requirements", Federal Insurance Administration, Department of Housing and Urban Development.

Harold Lewis Malt Assoc., Inc., Tactical Analysis of Street Crime, LEAA Grant Award Number NI 71-091-G, Jan. 1973. c. Harold Lewis Malt Assoc. 1973.

Liechenstien, M., Designing for Security, New York: The New York City Rand Institute, 1971.

Part III

- 1 "Building Security" an address by Hollis DeVines, Director of Schlage Security Institute, Schlage Lock Company in Urban Design, Security and Crime: A National Institute of Law Enforcement and Criminal Justice Seminar, 1972., U.S. Department of Justice, 1973. p.45.
- 2 Liechenstein, M., Reducing Crime in Apartment Dwellings: A Methodology for Comparing Security Alternatives., New York: The New York City Rand Institute, 1970. p.5.
- 3 Op.Cit., Federal Standards, p.105

The following is a partial listing of those individuals contacted during a five day technical assistance contract with the Public Administration Service; others not listed include approximately 30-40 public housing residents and line staff of the Seattle Police Department.

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Community Organization Specialist

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Mr. William Budd
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Mr. Ed Good
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Mr. Greg Hagans
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* While many people interrupted busy schedules to render assistance on this project, particular thanks should be accorded to these individuals.

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END