

NPCR 1138

Neighborhood Planning for Community Revitalization

DEVELOPING AN EARLY WARNING SYSTEM FOR AN
EIGHT-BLOCK AREA OF MINNEAPOLIS' PHILLIPS NEIGHBORHOOD:
METHODOLOGY, RESULTS, AND IMPLICATIONS FOR
FUTURE STUDIES

A CONSORTIUM PROJECT OF: Augsburg College; College of St. Catherine; Hamline University; Higher Education Consortium for Urban Affairs; Macalester College; Metropolitan State University; Minneapolis Community College; Minneapolis Neighborhood Revitalization Program; University of Minnesota (Center for Urban and Regional Affairs; Children, Youth and Family Consortium; Minnesota Extension Service); University of St. Thomas; and Minneapolis community and neighborhood representatives.

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Conducted on behalf of Phillips Neighborhood Network
Prepared by
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University of Minnesota
October, 1999

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METHODOLOGY, RESULTS, AND IMPLICATIONS FOR FUTURE STUDIES

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INTRODUCTION

BACKGROUND

The Phillips Neighborhood Network (PNN) is a volunteer organization created to assist in introducing electronic communication and networking to the neighborhood. Through its web site, PNN seeks to inform Phillips residents about diverse issues—political, legal, social, cultural, and historical—that impact their daily lives, with the goal of enhancing communication and cohesion among neighborhood residents and encouraging neighborhood advocacy efforts.

PNN has identified housing as a high priority in the neighborhood, and in recent years has taken an active role in conducting housing research in Phillips. In Spring 1998, the organization partnered with the Honeywell Corporation to produce a “State of the Neighborhood” report.¹ The report was intended to be the foundation for a continual process by which information would be disseminated to Phillips neighborhood residents by Phillips neighborhood residents, and included a demographic overview, a housing inventory (current as of May 1997), and an inventory of social services and community resources in Phillips. In December 1998, PNN produced the “Boarded and Vacant Property Inventory” for the Phillips neighborhood.² Key findings included an increase in both boarded and vacant properties in Phillips (using the May 1997 data as a comparison), with the most dramatic increases—and by far the largest number of boarded and vacant properties—occurring in the neighborhood’s east side. Finally, in Spring 1999 PNN commissioned a study entitled “Organizing to Address Housing Deterioration and Abandonment in Central Phillips.”³ This study, conducted by University of Minnesota graduate students as part of the requirements for a neighborhood revitalization course, evaluated housing deterioration in an eight-block area of Phillips, identified strategies used by other neighborhoods to address housing deterioration, and recommended remedial measures to area block clubs.

The current study focuses on this same eight-block area, with the purpose of identifying and measuring specific indicators of housing distress which, when taken together, provide an objective basis for judging the likelihood of property abandonment. These indicators comprise an “early warning system” that can serve as a model for other blocks to use in identifying properties in distress. Emphasis is placed on methodology, with a “how to” approach geared to assist other blocks or groupings of blocks in developing their own early warning systems. The end product is a mappable database of housing

¹ Charla Weiss, *Phillips State of the Neighborhood Report* (Minneapolis, Phillips Neighborhood Network, 1997). Published on the Phillips Neighborhood Network web site, <http://www.pnn.org>.

² Charla Weiss, *1998 Phillips Neighborhood Boarded and Vacant Properties Inventory* (Minneapolis, Phillips Neighborhood Network, December 1998). Published on the Phillips Neighborhood Network web site, <http://www.pnn.org>.

³ A. Chuang, L. Coburn, B. Dennison, N. DePalma, L. Goldstein, K. Hamblin, T. Nuhodzic, & B. Steeves, *Organizing to Address Housing Deterioration and Abandonment in Central Phillips* (Minneapolis, Phillips Neighborhood Network, June 1999).

attributes for the 8-block area, including a risk score—based on seven variables believed to be associated with housing distress—for each property.

PNN views this study as a pilot project that will inform neighborhood revitalization efforts and land use policy by providing a compelling example of how to generate empirical data from which sound housing policies can be formulated and resources allocated to areas most in need. Additionally, this study will inform intervention efforts by identifying properties that are in distress but have not yet reached the stage of physical abandonment.

The eight-block area under consideration lies in central Phillips and stretches from Bloomington Avenue on the east to 12th Avenue on the west, and from 26th Street on the north to 28th Street on the south. This study area was selected by PNN for the following reasons:

- The area contains a disproportionately high number of vacant and boarded properties in relation to the rest of Phillips (as indicated by findings of the 1998 Vacant and Boarded Property Inventory).
- The demarcation of the area by three heavily-trafficked streets (on the northern, southern, and eastern boundaries) and a school/park/community center (on the western boundary) creates a natural sub-unit of Phillips with distinct issues and needs, and thus its own strategies for solving these problems.
- The area has a history of collaboration among residents and block club leaders.
- The dimensions of the area are scaled to both a manageable research effort and a useful outcome.

PNN envisioned a study that would replicate the work of Lori Mardock, who in 1998 developed a “Neighborhood Early Warning System” (NEWS) in the adjacent Central neighborhood of Minneapolis.⁴ Mardock identified and measured six indicators of housing distress to arrive at an overall abandonment risk score for each residential property in Central. Indicators included property tax delinquency, non-owner occupancy, water arrears, poor building condition, proximity to areas of high crime, and proximity to abandoned properties. These indicators were selected based on published studies of housing abandonment (see Mardock), interviews with residents of the neighborhood, and case studies of currently boarded properties in the area.

Members of PNN expressed confidence that the indicators used in Central would be appropriate for the current study, and interviews with residents of the eight-block area confirmed this view. To a significant degree, then, this study replicates the Central methodology. Notable exceptions are the

⁴Lori Mardock, *Predicting Housing Abandonment in Minneapolis' Central Neighborhood: Creating an Early Warning System* (Minneapolis, Central Neighborhood Improvement Association, March 1998). Published on the NPCR web site, <http://freenet.msp.mn.us/org/npcr>.

inclusion of an additional indicator, code violations, and the use of alternative forms of measurement and scoring for some indicators. Methodology used in collecting data for each indicator is detailed below. As with the Central study, residents were interviewed and case studies completed for currently-boarded properties; results mirrored those in Central, with residents citing non-owner occupancy, crime, and deteriorating building condition as the most common antecedents of abandonment.

Housing abandonment has been conceptualized not as an event but rather a three-phase process beginning with psychological abandonment (on the part of the property owner), continuing through a stage of fiscal abandonment (disinvestment), and ending with physical abandonment (the stage most typically associated with abandonment).⁵ The intermediate stage, that of fiscal abandonment, lends itself both to measurement and intervention, and thus has become a focus of early warning systems.

Neighborhood early warning systems are, by design, deficit-focused. Myott's study⁶ provided an important counterbalance by including a strengths-based, utilization-focused assessment of ways in which NEWS data might be used by governmental and community interests—individually and cooperatively—to solve problems related to housing distress. The limited scope of the current study did not lend itself to such an assessment. However, should a NEWS be developed for the entire Phillips neighborhood, or a significant portion thereof, a solution- and utilization-focused approach such as that used by Myott is highly recommended, and may mean the difference between a study that is merely descriptive and one that is truly useful to the neighborhood. Myott cites as an example a St. Paul Water Utility officer who identified substantial increases in water usage as an indicator of faulty plumbing (a possible precursor to housing distress), yet had no effective means of notifying those residents who experienced such increases. By working in collaboration, Myott and the officer were able to develop a plan whereby the utility would supply the Hamline-Midway Area Rehabilitation Corporation (H-MARC) with data on these increases and H-MARC would in turn notify residents. Additionally, the utility offered to supply residents with a simple means of testing an inexpensive and easily-replaced rubber toilet mechanism which, when faulty, results in significantly increased usage. In this case, Myott's use of a solution-focused approach resulted in real benefits to the neighborhood.

AREA HISTORY AND DEMOGRAPHICS

Phillips neighborhood is the largest of Minneapolis' neighborhoods, spanning a 220-block area south of downtown. Adjacent neighborhoods include Whittier and Stevens Square-Loring Heights to the west, Elliot Park to the north, Seward and Longfellow to the east, and Corcoran, Powderhorn Park and Central to the south.

⁵F. Costa & E. Hanten, as cited in Mardock, 1998.

⁶Eric Myott, *Housing Early Warning System Feasibility in the Hamline Midway Area* (St. Paul, Hamline-Midway Area Rehabilitation Corporation, March 1999). Published on the NPCR web site, <http://freenet.msp.mn.us/org/npcr>.

Phillips is one of the the city's most ethnically and racially diverse neighborhoods, with people of color accounting for more than half the 1990 population of over 17,000.⁷ The neighborhood has long been a staging area for newcomers to the metro area, both immigrant groups and other new arrivals, due in part to the availability of affordable housing and social services. People of Somali, Hispanic, and East Asian descent are the most recent, and the most numerous, of newcomer groups.

Mobility is high in Phillips, with over 20 percent of residents moving on within 6 months, another 17 percent within one year, and another 23 percent within 3 years. Only 40 percent of residents remain in Phillips for more than 3 years.⁸ More than 40 percent of Phillips residents live below the poverty level, compared to a citywide rate of 18.5 percent.⁹ Unemployment is similarly high, with a rate of 18 percent compared to a citywide rate under 4 percent.¹⁰

The eight-block area contains 166 non-boarded and 9 boarded residential properties, most of which were constructed prior to 1920. Though housing stock in Phillips as a whole consists of a low percentage of single family homes and a high percentage of multi-family units (compared to citywide averages), including duplexes and apartment buildings,¹¹ the study area differs in this regard. Single-family homes comprise 53 percent of residential properties in the eight blocks, with duplexes and other two-family units accounting for 45 percent. The remaining 2 percent consists of three- to six-unit apartment buildings. In all, the eight-block area contains approximately 270 residential units.

RESIDENT INVOLVEMENT

Resident involvement in this study was important, for several reasons. First, residents are able to convey contextual and longitudinal information that statistics cannot. Consequently, their perspectives informed indicator selection, measurement and scoring. Second, resident involvement will be a key factor in keeping the NEWS database current. Though housing conditions in the Phillips area are in a constant state of flux, residents have a wealth of knowledge regarding housing distress, abandonment, and demolition. Many of the resident-participants in this study agreed to serve as database contacts on their blocks. Finally, and perhaps most importantly, these interviews injected a much-needed human element into the study, providing qualitative "reality checks" to an otherwise quantitative endeavor. Ultimately, this study is concerned not with housing, but with the *needs of people and neighborhoods* for safe and affordable housing—needs which can be best met by involving residents at all levels. Many of the residents involved in this study have been active on their blocks and/or in the neighborhood for years,

⁷ Phillips Neighborhood User Defined Area Data, 1990 Census of Population and Housing. More recent statistics will be available in December 2000, following the year 2000 Decennial Census.

⁸ State of the City 1998. Figures are from 1995.

⁹ State of the City 1998, Minneapolis City Planning Department.

¹⁰ Minneapolis Department of Economic Security, 1995.

¹¹ State of the City 1998. Figures are from 1998.

while others are just beginning their involvement. It is hoped that this study will be helpful to them in their endeavors.

DATA COLLECTION

AVAILABILITY OF ELECTRONIC DATA

Data were collected between June and August, 1999 for seven indicators, including property tax delinquency, water arrears, non-owner occupancy, code violations, building condition, proximity to areas of high crime, and proximity to abandoned properties. A base data set was available electronically, as discussed below, and provided a good deal of information that will be useful to the neighborhood. However, it was necessary to collect information from other sources for all indicators except non-owner occupancy, which was measured by homestead status and for which data were available in the base data set. Consequently, measurement of six of the seven indicators required referencing and/or cross-referencing written records or gaining access to a computer and recording data on paper for later input into the database. This report describes in detail the data-gathering process for each indicator, in the hope that others will find it easier, and less time consuming, to access such information in the future. At the same time, information technology is changing rapidly in city and county offices. At present, the City of Minneapolis and Hennepin County are working on a data integrated system that will make it easier for them to share data with each other and with the general public. As part of this process, many city and county offices are currently in the process of updating their computer systems. As this study was underway, both the city utilities billing and police departments were transitioning to new systems. Although the timing of this process was a complicating factor in data collection, it is anticipated that these improvements—and others that are currently in the works—will have positive implications for the development of neighborhood early warning systems. Though questions of data privacy and access have yet to be resolved, a wealth of data that were previously unavailable or difficult to access are expected to be available electronically and/or on the Internet within the next two years. More information on the implications of data availability and access for measurement of NEWS indicators is included as relevant in the discussion of specific indicators.

BASE DATA SET

Data collection began with a visit to the Minneapolis Department of Public Works GIS Print Room,¹² where a base data set for the eight-block area was purchased for just under \$13.¹³ Data are sorted by Property Identification Number (PIN) and available electronically in Microsoft Excel format; the file was

¹² 309 Second Avenue South, Room 301, 612-673-2431.

¹³ There is a \$10 charge for extracting the area and an additional charge of one penny per PIN.

later imported into Map Info. The GIS Print Room has access to several databases; most NEWS data are extracted from the Minneapolis City Assessor's PMQ database, which includes the PIN, property address, owner name, taxpayer name and address, parcel width/depth/area, land use (number of units), homestead status, land/building/market value, and date of PMQ. The date of the PMQ is not necessarily the date at which all data are current; while some data are updated monthly (e.g., homestead status, taxpayer and owner name), other data may be current as of the previous year. Information such as year of construction, Assessor's housing condition code, and number of bedrooms are available through other databases at no additional charge.

PROPERTY STATUS SURVEY

Next, a drive-through survey was completed to identify boarded units, vacant lots, community gardens and non-residential properties (i.e., businesses, churches and parking lots). For purposes of this study, blocks are defined as face blocks, or rows of houses that share an avenue, rather than contiguous blocks. Because two of the indicators are concerned with proximity—to areas of high crime and to abandoned properties—it was necessary to survey properties bordering, but outside of, the eight-block area.

Conducting a property status survey was an essential step in the development of a neighborhood early warning system for the eight-block area. Due to ever-changing housing conditions and land status, city and county data are generally outdated in this regard. For example, a map of vacant lots published in the previously-mentioned study of the 8-block area¹⁴ (and based on information provided on Hennepin County's web site) presents an inaccurate portrayal of vacant lots, failing to account for both new construction and the purchase of vacant lots as side lots by neighbors. Indeed, of the 41 properties designated as vacant on this map, only 21 were actually vacant as of August 1999. Additionally, the map contained a number of outright inaccuracies. For example, several lots designated as vacant on the map are in fact occupied by homes which were built prior to 1920.

Results of the survey were plotted on a map of the eight-block area, thereby providing a visual representation of property status. This information was later manually entered into the database. Of the 227 properties in the study area, 166 (73 percent) were non-boarded residential units; 9 (4 percent) were boarded residential units; 39 (17 percent) were vacant lots, 4 (2 percent) community gardens, and 9 (4 percent) non-residential properties. A map of property status, generated in Map Info, is attached as Appendix A. Although all properties in the eight-block area were included in the land status survey, subsequent data collection involved only those properties of greatest relevance to the development of a NEWS: non-boarded residential properties.

¹⁴ Chuang et al., 1999.

RESIDENT INTERVIEWS

Once the property status map was available, interviews with residents were scheduled. In all, 13 residents were interviewed in a total of 8 face-to-face and 3 telephone interviews. Contacts were provided by PNN and the Minneapolis Police Department Community Crime Prevention (CCP)/SAFE officer. The goal was to interview at least one resident per face block, in order to learn about each block's history and current status from the perspective of residents; however, contacts were not available for all blocks. Although asking identified contacts for "referrals" to contacts on other blocks resolved this problem somewhat, contacts were not identified for Bloomington Avenue until the final stages of data collection. Another difficulty was that all block club and neighborhood leaders identified by CCP/SAFE were white homeowners, who for the most part provided referrals to other white homeowners. Although two people of color—one of whom was a renter—participated in interviews, people of color and renters were underrepresented in this sample.

Residents interviewed were asked to verify the property status map and to offer their perspectives on: 1) block history, with a special focus on vacant lots and boarded buildings; 2) what should be done with existing vacant lots and boarded buildings on their block; and 3) crime, both on their immediate block and in the eight-block area. The qualitative data obtained from residents provided an important supplement to the quantitative measurements used in this study. Whereas the statistics gathered herein represent only a momentary glimpse of housing in the eight-block area, resident reports offered a longitudinal view of the area and a point of comparison from previous years. Although resident reports varied from block to block, several themes emerged:

- 1) There is a general sense of optimism about the area, with comparisons made between "how bad it (read: crime and property abandonment) was four or five years ago," and how relatively "quiet and troublefree" it is today.
- 2) Residents report a trend toward home ownership, with area "slumlords selling and owner-occupants buying."
- 3) The characterization of vacant lots as a detriment to the area is generally disputed; though residents would like to see housing built on some vacant lots, other lots are valued as "green space" that provides relief from high density, a larger yard for neighbors who purchase the land as side lots, a community garden, or a nice open space to "play games with the kids."
- 4) As stated above, residents cited non-owner occupancy, crime, and deteriorating building condition as the most common antecedents of abandonment.

Additional resident perspectives are included as relevant in the discussion of individual indicators.

MEASURING THE NEWS INDICATORS

Data were collected for the following seven indicators: property tax delinquency, water arrears, non-owner occupancy, code violations, building condition, proximity to areas of high crime, and proximity to abandoned properties. Data collection procedures and results are discussed below.

Property Tax Delinquency

◆ *Data Collection*

Property tax information is available through Hennepin County Taxpayer Services.¹⁵ Although a good deal of property information, including homestead status, is available on the County's web site,¹⁶ tax delinquencies are not accessible by this method. Consequently, it was necessary to visit the Taxpayer Services Office. The planned strategy was to use the number of delinquency *notices* as a measure of property tax delinquency, and to collect data at Taxpayer Services' public computer room. This proved to be infeasible, for the following reasons: 1) property tax records can be accessed only one address at a time; 2) once a property was accessed, it was necessary to traverse several screens in order to get an accurate count of notices sent; 3) notices are not sent to taxpayers who are paying delinquent taxes on Confessions of Judgment (a County payment plan); and 4) at a charge of \$1 per screen, the cost of obtaining printouts would have been prohibitive.

After consulting with several Tax Services workers, it was decided to use the number of *years* of delinquency (since 1990) as a measure. This information was accessed quickly and easily through a "delinquent tax run," published each February and updated monthly, which lists by PIN all properties in Hennepin County with delinquencies in the previous year, along with the number of years in which delinquencies are outstanding. The book is available for viewing at Taxpayer Services or for purchase at \$200.¹⁷ Although data sorted numerically by PIN can be cumbersome to analyze, the opposite was true in this case. The first step was to identify the range of PINs in the study area. This was accomplished by simply referencing the first and last properties on the base data set printout. Next, the pages in the delinquent tax run which contained the properties in this PIN range were consulted. Those PINs that matched the PINs of properties in the eight-block area were noted, and the number of years delinquent was written in the margin of the data set printout. The entire process took about ten minutes. Data were later coded and entered manually into the database.

¹⁵ Hennepin County Government Center, 6th Floor, Administrative Side, 612-348-3011.

¹⁶ <http://www2.co.hennepin.mn.us/pins/propaddr.htm>.

¹⁷ Given sufficient resources, one could provide Taxpayer Services with a range of PINs and request that they photocopy the corresponding pages in the delinquent tax run. At a rate of \$1 per page, with approximately 7 properties per page, the charge would total roughly \$14 per 100 properties. However, the lead worker stated that this cost might possibly be waived for neighborhood organizations.

◆ *Scoring and Results*

Each property in the eight-block area received a property tax delinquency score as follows:

- 0 – No current delinquency
- 1 – 1 or 2 years delinquent since 1990
- 2 – 3 or more years delinquent since 1990

A map of property tax delinquency in the study area is attached as Appendix B. Of the 166 residential properties, 7 properties—or approximately 4 percent—had one or more property tax delinquencies since 1990. Number of years delinquent ranged from 1 to 4. Delinquencies tended to be concentrated in the north-central section of the study area.

◆ *Limitations/Implications for future studies*

This method presents a drawback, in that the delinquent tax run lists years of property tax delinquency only for those properties with *outstanding* tax bills. Consequently, a taxpayer who was delinquent in previous years—but who subsequently paid the tax—would not appear in the book. Indeed, the book gets smaller from month to month as taxpayers who satisfy their debt are removed. Thus, it was possible to measure actual years delinquent since 1990 only for those properties that had current delinquencies. Additionally, those taxpayers who are currently delinquent but paying the tax on Confessions of Judgment are not included in the book. Although one might assume that such properties are no longer at a significant risk of distress, a County worker noted that defaults are common.

Consequently, the delinquent tax run presents only a partial picture of tax delinquencies. To obtain an accurate history of delinquent property taxes for an area, including taxes that were eventually paid and current delinquencies that are on a payment plan, one must go to the computer room and call up one address at a time, an extremely time-consuming venture. Even then, one would need to search through up to five screens per property to obtain comprehensive information. For the individual who has a small number of properties to research, this method might be viable—though the system is less than user friendly, and assistance is required to interpret various codes, clarify what information is available, and identify the screens that must be accessed to obtain needed information. Given the complexity of this process, the delinquent tax run seems the most feasible method of measuring property tax delinquency at this time—provided one is aware of the limitations of this approach.

Although this study is concerned with only a small area in Phillips, this method of measurement lends itself to larger tracts as well. For example, it is estimated that data collection for the entire Phillips neighborhood, which encompasses roughly 220 blocks, could be completed in less than a day, and possibly in as little as five hours.

At the time of initial data collection, the author was informed that no data were available electronically. It was later discovered that selected property tax delinquency data are available for purchase in electronic format. Evidently, one could provide the information technology specialist at Hennepin County Taxpayer Services with a list of PINs and obtain an electronic file (in text or DBF formats) containing those PINs that have current delinquencies. Unlike the delinquent tax run, Confessions of Judgment could be included upon request. However, because this method includes data for the current year only, it would be impossible to determine the number of years a taxpayer is delinquent. The charge for this service is \$200, plus 6 cents per PIN.

Water Arrears

◆ *Data Collection*

Water billing information is available from the City of Minneapolis Utilities Billing Offices.¹⁸ Data were not available electronically at the time of data collection. However, city employees were very accommodating of the data collection process, going so far as to move a computer into the lobby and provide an employee to conduct a brief training session. It should be noted that a new water billing system was implemented in August (details below). Consequently, future data collection procedures may vary from those used in this study.

Water billing data are sorted according to account number rather than street address or PIN. However, because account numbers typically run consecutively by street, properties in the study area were listed in address order. Although this eliminated the need to search by individual address, it was nonetheless necessary to access a separate screen for each property. Water arrears in excess of \$600 were noted on a map of the eight-block area and later input manually into the database.¹⁹ The entire process took approximately three hours. However, this included training time, and the process became routinized after an hour or so; consequently, data collection for an area twice as large would not take twice as long. It is estimated that additional blocks would take roughly 10 minutes each. It would also be possible to search the range of addresses and obtain printouts. However, the charge for printouts (\$1 for the first page, \$.50 thereafter) could become extremely costly. For a smaller area, one could provide a list (20 properties or less) to Utilities Billing and receive this information free of charge.

¹⁸Public Works Building, 250 South 4th St., Room 200, 612-673-1114.

¹⁹The methodology used by Mardock (1998) to measure water arrears in Central was replicated in this study. Mardock based dollar amounts on "reasonable monthly water billings for 1 and 2 unit buildings."

◆ *Scoring and Results*

Each property in the eight-block area received a water arrears score as follows:

- 0 – No arrears, or arrears less than \$600
- 2 – \$600-1000 in arrears
- 4 – Over \$1000 in arrears

This indicator was weighted 200 percent to reflect the significance of water arrears as an indicator of housing distress. Myott²⁰ observes that because water is a basic need, a failure to pay for this resource not only indicates significant distress, but may be predictive of an inability to pay for other, less basic, needs—including investment in the home's infrastructure.

A map of water arrears in the eight-block area is attached as Appendix C. Of the 166 residential properties, 13 properties—or approximately 8 percent— had water bill arrears totaling over \$600. Seven of the 13 were delinquent in excess of \$1,000. Actual delinquency amounts ranged from \$617 to \$3,954, with an average delinquency of \$1,966. Of all properties with significant water arrears, 70 percent were located in the northern half of the study area. The greatest concentration of delinquencies was found in the northeastern section of the study area, with the lowest concentration in the southwestern section.

◆ *Limitations/Implications for Future Studies*

Using dollar amounts to measure this indicator could be problematic, in that water usage—and thus water bills—are higher in multi-unit buildings. Mardock suggests dividing the delinquency amount by the number of units when calculating delinquency for a multi-unit building.²¹ Such calculations were not necessary in the current study, as none of the 3 apartment buildings in the eight-block area had significant arrears.

The fact that a water bill at a single-family residence could go unpaid for many months before a \$600 water bill might accumulate suggests that dollar amounts may not be the most informative measure of distress. The average delinquency of nearly \$2,000 found in this study seemed especially curious in this regard; a phone call to a supervisor at Utilities Billing cleared up the confusion. Although the water department typically generates shut-off notices for arrears in excess of \$100, there are two instances in which a customer can avoid a shut-off. The first concerns those customers who inherit balances from previous owners. In such cases, the water cannot legally be turned off; as long as the active account remains in good standing, the previous balance is carried forward. For other customers, the water department may attempt to implement a shutoff only to find that the shut-off valve is inoperable. In these cases, water bills may continue to accumulate. This “free ride” will end in the next year or two, at which time outstanding balances will be assessed to property taxes.

²⁰ Myott, 1999

²¹ Mardock, 1998

Though problems undoubtedly exist with the use of dollar amounts as a measure of water arrears, the Utilities Billing supervisor interviewed for this report believes that it remains the best method of pinpointing distress. Although shutoff notices may seem a promising alternative, this supervisor states that such notices in essence measure "people who pay late," and are therefore not true indicators of distress. Apparently, many shutoff notices go out on a regular basis to people on fixed incomes or economic assistance who have to wait until their checks arrive at the end of the month to pay bills that were due at mid-month. The use of dollar figures is preferable, the supervisor contends, because "if someone owes \$300, you know they're three months behind and you know they have a problem."

Utilities Billing began using a Windows-based system in August 1999. By March 2000 a UniData database will be in place. Information will again be sorted by account number. Utilities Billing reports that they are currently able to run "cutoff requests" to detect properties with bills in excess of a specified dollar amount. Because this is a new and relatively untested capability, few details are available regarding cost, formatting options, and the possibility of including PINs in electronic files. It seems likely that these questions will be resolved in the next several months.

Non-owner Occupancy

◆ *Data Collection*

Homestead status was used as a measure of non-owner occupancy. Properties that were partially homesteaded, such as owner-occupied duplexes, were considered homesteaded. This information was available in the electronic file obtained from the GIS Print Room; consequently, non-owner occupancy was by far the easiest indicator to measure. See Myott for an interesting discussion of the significance of non-owner occupied housing and possible solutions to the problem of irresponsible absentee owners.²²

◆ *Scoring and Results*

Each property in the eight-block area received a non-owner occupancy score as follows:

- 0 – Homestead
- 2 – Non-homestead

A map of non-owner occupancy in the eight-block area is attached as Appendix D. Of the 166 residential properties, 63 properties—or 38 percent—were non-homesteaded. These properties were distributed fairly evenly throughout the eight-block area.

²² Myott, 1999

Because owner location may have implications for property upkeep and awareness of potential problems, data were consulted to determine the location of residence for absentee owners of properties in the study area. This investigation was similar to that used by Myott, who measured "ownership vicinity" (rather than homestead status alone) as an indicator of housing distress and found that properties held by owners who reside outside the city generally exhibit greater distress than those whose owners reside within city limits.²³

Determining the addresses of absentee owners proved a somewhat complex process in the current study. First, a printout of all properties with rental licenses was obtained from Minneapolis Rental Licensing.²⁴ Non-homesteaded properties were marked, and the owner's address noted. A tally was kept of Minneapolis, metro, outstate, and out of state addresses. However, only 45 of the 63 non-homesteaded properties were included on the list, leaving 18 owners unaccounted for. Upon further investigation, it was determined that several of the 18 were owned by such entities as the Minneapolis Public Housing Authority, the Minneapolis Community Development Agency, and a local church. The remaining properties were accounted for by consulting the base data set. Although owner address was not among the fields included in the data set, owner name was included, as were taxpayer name and address. Thus, it was possible to compare the taxpayer and owner names; in those cases where they matched, it could be assumed that the taxpayer address was also the owner address.

It was possible to determine the owner's residence for 62 of the 63 non-homesteaded properties in the study area. Of these, 44—or 71 percent—are owned by individuals who reside within the City of Minneapolis. Fifteen—or 24 percent—of owners reside within the metro area, and 3—or roughly 5 percent—live in other states (i.e., Iowa, Illinois, and Massachusetts). None of the owners reside in outstate Minnesota.

Descriptive statistics are provided to explore the relationship between ownership residence and housing condition in the eight-block area. Results, shown in Figure 1, appear to confirm a negative relationship between owner distance and building condition; that is, as the distance of the owner from the property increases, building conditions worsen. Of those properties whose owners reside farthest from the eight-block area (i.e., outside the state of Minnesota), all received a building condition rating of fair or poor. Of those properties whose owners reside in the Metro area, 86 percent received a building condition rating of fair or poor. On the other hand, properties whose owners reside in the city of Minneapolis were split evenly among excellent/good and fair/poor building condition ratings.

²³ Myott, 1999.

²⁴ City of Minneapolis Inspections Division, 612-673-3701.

FIGURE 1
Housing Condition

	Excellent	Good	Fair	Poor	Total
<u>Owner vicinity</u>					
Minneapolis	25%	25%	33%	17%	44
Metro	7%	7%	53%	33%	15
Out of the state	-	-	33%	67%	3
Total	19%	19%	38%	24%	62

Additional descriptive statistics related to homestead status are included later in this report.

◆ *Limitations/Implications for Future Studies*

Non-homestead properties that become owner occupied are not considered officially homesteaded for tax purposes until the year following purchase. Consequently, if homestead data are not available for the year in which data are collected, inaccuracies will likely exist. Homestead data for this study were obtained from the May 13, 1999 Assessor's PMQ, which was current as of May 6. Hennepin County supplies the Assessor with updated data on a monthly basis.

Code Violations

◆ *Data Collection*

Code violations data are available through the City of Minneapolis Inspections Division.²⁵ Though this information is not currently available electronically, it was relatively easy to access and analyze. The first step was to obtain an "Open Violations by Neighborhood Report" for Phillips (neighborhoods are the smallest unit available). The report totaled 36 pages, 10 of which contained data relevant to the eight-block area. Though the first 10 pages are free of charge, a fee of 25 cents per page applies thereafter. Data were sorted by street address, making it relatively simple to page through and mark the ranges that fell into the eight-block area. For each property with one or more open violations, the report lists the work order number(s)²⁶ and a code that corresponds to each violation. A "violation text," needed to decipher the violation codes, is available for S2.

Because this indicator was not used in the Central study,²⁷ it was necessary to investigate the nature of all code violations in the eight-block area to get a better sense of how the indicator should be scored. This was accomplished by referencing the violation text and marking the nature of each violation directly onto the report. Next, open violations for each property were totaled and noted on a map of the study area. It was this number—the total violations per property—that was later entered into the database.

²⁵ 250 South 4th Street, Room 300, 612-673-5800.

²⁶ There may be several work orders per property, each of which may cover several violations.

²⁷ Mardock, 1998

◆ *Scoring and Results*

Each property in the eight-block area received a code violations score as follows:

- 0 – 0 to 3 violations
- 1 – 4 to 9 violations
- 2 – 10 or more violations

This scoring system was informed by an investigation into the nature of code violations in the study area, as previously noted. In all cases, properties with 3 or fewer violations were cited for relatively-inconsequential and easily-remedied items such as “cut grass/weeds,” “dumpster required,” or “paint garage/shed.” It therefore seemed reasonable to establish 4 violations as the point at which property distress begins. The higher cutoff was more arbitrary, and based primarily on the subjective judgment that 10 or more open code violations are excessive and indicative of serious distress.

A map of code violations in the study area is attached as Appendix E. Of the 166 residential properties, 45 properties—or roughly 27 percent—carried open code violations. However, only 9 of these—or roughly 5% of total properties—were indicative of housing distress. The number of code violations per property ranged from 0 to 19. Violations were dispersed fairly evenly, with a slight concentration in the central portion of the study area.

◆ *Limitations/Implications for Future Studies*

The scope of this study made it feasible to include code violations as an indicator. Yet even given a relatively small study area, data collection, input, and analysis were time-consuming. Since code violations are in essence an indicator of housing condition, this indicator may be deemed unnecessary in those instances when comprehensive—and current—housing condition data are available. Conversely, when such data are unavailable, the inclusion of code violations may prove a useful supplement—or possibly even an alternative method—for assessing housing condition.

Work order histories are available for purchase from the Inspections Division (first 10 pages free, 25 cents thereafter). Some histories total ten pages per work order. Additionally, a “Housing Maintenance Code Book” is available both for purchase (\$4) or on the City of Minneapolis web site.²⁸ This book details specific ordinances used by the Inspections Division to “charge out” code violations.

²⁸ <http://www.ci.minneapolis.mn.us>. Search for “housing maintenance code”

Housing Condition

◆ *Data Collection*

Included in the base data set purchased from the GIS Print Room was a City Assessor's building condition rating for each property in the eight-block area. While building condition ratings for Phillips are scheduled to be updated this fall, data are currently 4 to 5 years old and therefore not reliable. Consequently, it was determined that a walk-through survey of the study area would provide the best possible measure of building condition.²⁹

The initial plan was to use an existing housing conditions survey form. Consequently, survey instruments developed for use in other Twin Cities neighborhoods were obtained and evaluated as to their suitability for use in the eight-block area. The goal was to conduct as thorough and objective a housing survey as possible. Toward that end, primary considerations included specificity, comprehensiveness, and ease of use; of these, specificity was deemed most important, due to concerns about subjectivity. After examining the survey forms, it was determined that none provided the level of detail desired. For example, although some instruments provided a few examples of criteria that surveyors should look for in rating a given item (e.g., rotting eaves, missing shingles, broken windows), they tended to leave a great deal of interpretation to the surveyor. Indeed, one survey form asked the surveyor to comment on whether a property was worthy of rehabilitation. Additionally, most survey forms used a variation on the "excellent-moderate-poor" theme without adequately distinguishing between these categories.

One instrument that seemed to avoid this problem was a matrix developed in the spring of 1999 for use in a housing conditions survey on St. Paul's east side.³⁰ This matrix, which rated 6 variables on a scale from 1 to 5, provided greater specificity and flexibility and permitted a more sensitive measurement than the previously-examined instruments. Additionally, it was determined that a matrix format would be considerably easier to use than a survey form. While the latter method necessitated that one form be completed for each property, the matrix method required only one copy of the instrument and a few tally sheets. This method greatly simplified data analysis as well, in that all data were automatically quantified and condensed on a few tally sheets rather than hundreds of survey forms. For these reasons, the St. Paul matrix was adapted for use in the current study.

As written, the matrix included the categories of roof, eaves (and gutters), walls, windows, porch, and yard (which focused on sidewalks, stairs, and retaining walls rather than grounds). To these

²⁹ In her 1998 study of Central, Mardock suggested two alternatives to using outdated data from the Assessor's office: code violations data and an actual survey of the neighborhood. Both were determined to be useful in the current study.

³⁰ This instrument was developed by Jessie Deegan and Matthew Abts, East Side Neighborhood Development Corporation, St. Paul.

categories were added: doors, grounds, garage/adjacent structure, and paint.³¹ The rating scale was modified to begin at 0 rather than 1, in order to make the scores more meaningful; that is, a perfect score across all 9 categories would be 0 rather than 9, and there would be no need to subtract the best possible score from the actual score to determine how many points were allotted for less-than-excellent conditions. This modification also allowed for weighting of the first 5 categories to better reflect the structural significance and greater replacement or repair cost of these items. Roof, eaves/gutters, and exterior walls were weighted 200% to signify their importance for building structure and overall housing condition. Porch and sidewalk/stairs/retaining walls were deemed significant as well, though less so than the former categories, and thus were weighted 150%. No other categories were weighted.

Additional modifications included the refinement of selected descriptors. Such modifications were made to increase specificity, and were ongoing throughout the survey process.³² For example, paint was initially considered not a separate category, but a descriptor; i.e., rating 2 for eaves included "in need of some paint," while rating 3 included "eaves need much paint." However, after a dry run it was decided to make paint a separate category in order to better distinguish between structural and maintenance issues. Each time properties were surveyed, additional modifications were made. For instance, in appraising stairs it was discovered that no descriptor existed for "missing railing." A rating of 2 seemed most appropriate, given that this condition, while not necessarily a serious problem, requires more than a minor repair to correct; consequently, the matrix was again revised. This cycle of surveying and then revising the instrument continued throughout the process as conditions were encountered which did not correspond to the matrix as written. The expectation was that as specificity increased, subjectivity and inconsistency would decrease. Importantly, these subsequent revisions did not compromise earlier ratings, because descriptors were neither deleted nor moved, but simply added as they arose.

Residents of the eight-block area were invited to participate in the walk-through survey, and many did so—generally on their immediate blocks. This was seen as an important means of involving residents and encouraging their investment in the project and the neighborhood. A total of 7 residents participated in the survey; although each brought with them a different subjective lens, the author's presence throughout the process provided continuity.

³¹ See Appendix J for a copy of the survey matrix.

³² Despite this attention to specificity, descriptors were intended to be guidelines for scoring rather than exhaustive lists of every condition that might be encountered. Modifications were made primarily in those cases when a condition clearly did not correspond to any of the categories as specified.

◆ *Scoring and Results*

As properties were surveyed, their scores for all 9 categories were weighted as needed and noted on a tally sheet.³³ Later, these scores were totalled and entered into the database. The lowest possible score was 0. The highest possible score was 52. Actual scores ranged from 0 to 32, with a mean of 11.2, a median of 9.5, and a mode of 9.0. Statistics by block are included in Appendix L.

It was decided to use four scoring categories (rather than the 2 or 3 categories used for most other indicators) in order to better capture the condition of properties in the study area. However, a strategy for identifying meaningful and realistic rather than arbitrary cutoffs was not immediately apparent. At the suggestion of housing experts in the Seward neighborhood, it was decided to conduct a survey of actual boarded properties in order to identify an upper level threshold.³⁴ The expectation was that these properties would exhibit conditions similar to those which existed just prior to their abandonment,³⁵ thus providing a realistic basis for determining a cutoff point for the most serious housing condition category.

The study area contained 9 boarded properties. In order to obtain a larger sample, several boarded properties were also surveyed in the Central neighborhood; the land status map included in the Central study was used to identify potentially boarded properties.³⁶ Interestingly, and impressively, a majority of the properties that were boarded at the time of Mardock's data collection had been rehabbed. Of 52 properties designated as boarded on the Central land status map, 25 were inspected for purposes of this study; of these, 6 remained boarded, 5 had been demolished, and 14 had been rehabbed. The 6 boarded properties were surveyed, making for a total of 15 properties in the boarded sample. Housing condition scores for these properties ranged from 8 to 33.5, with a mean of 21. The upper level threshold was thus set at 21, the mean boarded property score.

In a somewhat similar manner, the lower level threshold was determined by using a sample of 12 property owners who were interviewed for this study, either formally (scheduled) or informally (impromptu conversations with residents during the course of the survey). Residents selected for the sample were deemed to be invested both in their homes and their blocks, a fact which seemed to suggest that the mean score of their properties might provide a realistic lower level threshold. These properties were well-kept and experiencing no noticeable distress that might contribute to abandonment. Building condition scores for these properties ranged from 0 to 12.5, with a mean of 6. Consequently, the lower level threshold, or that point at which a property would move from a rating of "excellent" to a rating of "good" (and therefore from no distress to mild distress), was set at 6.

³³ A copy of the tally sheet is attached as Appendix K.

³⁴ Thanks to Bernie Waibel and Tom Ruffaner of the Seward Neighborhood Group, who were both advisors for, and participants in, the housing conditions survey.

³⁵ Because lower level windows were boarded, their condition prior to abandonment could not be determined. Additionally, it was not known whether grounds had been in better, worse, or the same condition prior to abandonment.

³⁶ Mardock, 1998.

Finally, the mid-level threshold was calculated by splitting the difference between the lower and upper thresholds. These scores were then converted to a 2-point scale (for weighting purposes), as follows:

- 0 – Excellent condition (overall housing condition score of 0 to 6.5)
- 0.66 – Good condition (score of 7 to 13.5)
- 1.33 – Fair condition (score of 14 to 20.5)
- 2.00 – Poor condition (score of 21 or greater)

A map of housing conditions in the study area is attached as Appendix F. Of the 166 residential properties in the eight-block area, 53 properties—or roughly 32 percent—were in excellent condition, 52 (31 percent) in good condition, 44 (27 percent) in fair condition, and 17 (10 percent) in poor condition. In general, these findings support those of Chuang, et al., whose preliminary survey in spring 1999 suggested that housing conditions are quite favorable in the study area. The current survey found approximately two thirds of the housing stock in the eight-block area to be in excellent or good condition. It is interesting to note also that all measures of central tendency (i.e., mean, median, and mode) for this indicator fall into the “good” condition category.

Properties in the four condition categories were distributed fairly evenly throughout the study area. Some variation, though not a lot, was evident between blocks. Using the mean scores of the 16 block faces surveyed, it was determined that 11 fell into the “good” category, 4 into the “fair” category, and 1 into the “poor” category.

◆ *Limitations/Implications for Future Studies*

Because of the relatively small scope of the study area, the author was able to conduct the survey in its entirety. Had this not been possible, it would have been necessary to train surveyors in order to ensure the greatest possible interrater reliability. In this case, the specificity of the matrix would have become an even more important factor. As stated previously, it was expected that refinements to the matrix would have the effect of reducing both subjectivity and inconsistency. However, some degree of subjectivity is a given in any endeavor of this type.

Readers should be mindful of the inexact nature of the scoring technique used for this indicator. Although every attempt was made to base condition categories on realistic data, the method used herein is nonetheless imperfect. Additionally, the act of reducing a sizable number of actual scores to more manageable categories, though it may permit a more useful interpretation of data, also results in a loss of precision. For example, though housing condition scores of 7 and 13 are quantitatively quite different, they are considered qualitatively identical (i.e., “good”) for purposes of this study.

Lastly, time constraints did not allow for separate analyses of the 9 housing condition categories. Such analyses would require 10 database fields rather than 1, hours of data entry, the development of a separate scoring system, and subsequent data analysis. Clearly, the labor involved in such an endeavor would be substantial. Nonetheless, it would be interesting and informative to provide a breakdown of conditions in the study area by roof, exterior walls, and so on. Individual scores in each category are available should the Phillips Neighborhood Network choose to undertake such an analysis.

Proximity to Areas of High Crime

◆ *Data Collection*

It was originally intended that the method of data collection used in the Central study³⁷ be replicated for this indicator. However, neighborhood crime maps were unavailable for 1999 due to the Minneapolis Police Department's conversion to new mapping software. Consequently, it was decided to use data from the department's R.E.C.A.P.³⁸ unit as a measure of criminal activity. R.E.C.A.P. tracks the activities of squad cars throughout the city of Minneapolis. Data available include street address, nature of call, date and time of call, case control number, and disposition code. As is the case with most of the foregoing indicators, this information is not available electronically at the present time; even if it were, data would not be exportable for database purposes due to an absence of PIN identifiers in the D-Base system.

Squad cars are most often dispatched in response to civilian telephone calls, both to the emergency (911) and non-emergency (348-2345) police numbers; however, R.E.C.A.P. data also reflect those cases when a squad comes upon criminal or suspicious activity in the line of duty. Consequently, the use of the term "police calls" in this study should not be construed to mean all telephone calls received by the police, but rather those calls and situations to which officers are actually dispatched. Indeed, of the many 911 and "348" calls received by police, only approximately 1 in 5 results in a dispatch. The remaining 4 calls either do not warrant a response (e.g., civil matters, crank calls), are referred to specialty areas (e.g., Inspections, Child Protection, Crack Team), or are out of the Minneapolis jurisdiction.

R.E.C.A.P. tracks police calls by "response zone" rather than neighborhood; a single neighborhood may encompass several response zones.³⁹ For example, although all properties in the eight-block area were included in Zone 6, a study of the entire Phillips neighborhood would require that data be extracted from 3 additional response zones (Zones 2, 3, and 5). In the current study, R.E.C.A.P. extracted from Zone 6 only those addresses which corresponded to the study area and its eastern and western borders, and furnished a printout of all police calls from January 1 through August 10, 1999 (the date of data

³⁷ Mardock, 1998.

³⁸ Repeat Calls Address Policing, 217 South Third Street, 612-673-3041; the name of this unit will soon change to "Calls for Service."

³⁹ See Appendix M for a map response zones in Minneapolis' Third Precinct.

extraction). The printout numbered 39 pages and listed 2,283 calls; these calls corresponded to more than 20 disposition codes (police shorthand for the outcome of the call) and over 100 nature codes (police shorthand for the reason for the call).⁴⁰ Following an inspection of the printout, a R.E.C.A.P. officer was enlisted to assist in identifying those nature and disposition codes that would best measure criminal activity in the study area, with the expectation that the data in the original extraction could be re-sorted and a printout obtained of only those calls which corresponded to relevant codes. Regrettably, the extracted file had already been deleted by R.E.C.A.P. Had this not been the case, an automated re-sort could have been accomplished and several hours of manual sorting eliminated.

Data were first sorted by disposition code. Those listings that corresponded to the seven disposition codes identified as relevant to the study area were highlighted. The next step was to check the nature code for each highlighted address and mark those that corresponded to any of the 51 nature codes identified as relevant to the study. This process was not as difficult as it initially seemed, as the vast majority of calls fell into a few major categories. Indeed, of the 51 nature codes selected for use in this study, perhaps 20 appeared in the report. Of these, roughly 10 of the codes appeared again and again; the most common of these were SUSPP (suspicious person), SUSPV (suspicious vehicle), and NARC (narcotics), all of which are frequently associated with drug activity.

Before going further, it may be helpful to explain briefly the rationale for selection of specific disposition and nature codes. These codes, which are indicated on the document in Appendix N, were selected with the assistance of a R.E.C.A.P. officer. Those disposition codes that did not refer to reports, bookings, or tags were chosen based on their ability to indicate that something was indeed amiss when officers arrived on the scene, and that police spoke to the party or parties and either *reprimanded and released* them, *advised* them that their behavior must cease, or *sent* them out of the area. The latter disposition is common in cases when a drug deal is suspected but cannot be proven, and the suspect cannot articulate a reason for being in the area. This is often the case with the nature codes "suspicious person" and "suspicious vehicle."

Nature codes were chosen to encompass both serious (Part I) and "livability" (Part II) crimes. Although Part I crimes (e.g., aggravated assault, burglary of a dwelling, robbery of a person) are considered more serious than Part II crimes (narcotics, prostitution, weapons, simple assault), livability crimes, especially narcotics and prostitution, are generally of great concern to neighborhood residents. Additionally, although a "parking problem" or "neighbor trouble" may appear to have little impact on

⁴⁰ See Appendix N for a listing of these codes and their meanings. Disposition and nature codes used for this study are marked to the left of the code. Nature codes that do not appear in this listing but which appeared on the printout and were considered to be relevant included those pertaining to the theft of "bait" vehicles and trespassing (which usually involves boarded properties).

crime-related distress, such problems are irritants to residents and can lead to more serious problems. The selection of nature codes was also informed by resident reports, which identified drug dealing and prostitution as two of the study area's most vexing concerns. Such reports reinforce the need to include Part II crimes in any measurement of criminal activity.

Because R.E.C.A.P. data are sorted by house number or intersection, all calls to a given property were listed consecutively on the printout—making it simple to calculate the total number of calls per address. These totals were then plotted, by address or intersection, onto a map of the eight-block area. Next, calls on each block, including intersections, were totalled; because criminal activity at intersections affects each of the four converging blocks, the total number of calls for each intersection was divided by four and the resulting figure attributed to each block. Finally, totals for the even and odd sides of each face block were added to arrive at a single block score. It was this score that was later entered into the database for each property.

◆ *Scoring and Results*

Each property in the eight-block area received a score based on its proximity to areas of high crime, as follows:

- 0 — 0 to 20.5 police calls per block (no significant risk)
- 0.66 — 21 to 40.5 police calls per block (moderate risk)
- 1.33 — 41 to 60.5 police calls per block (serious risk)
- 2.00 — 61 or more police calls per block (severe risk)

This scoring system was developed in consultation with Phillips' CCP/SAFE crime prevention specialist and informed by 1) a second sorting of the R.E.C.A.P. data and 2) current Part I and II crime statistics that became available after the study was well underway.

In the second sorting, police calls deemed relevant in the first instance were re-sorted by disposition code to select out only those which constituted "reported crimes"—that is, those with "formal" dispositions (bookings, reports, and tags). This had the effect of identifying those calls which would have been included on neighborhood crimes maps, had they been available, and providing a breakdown of calls according to disposition type, both formal (40% of the total) and informal (60% of the total) (e.g., suspect was "advised," "sent" out of the area, or simply "reprimanded and released"). However, as stated previously, the more comprehensive measurement made possible by the use of R.E.C.A.P. data encompassed not only more disposition codes, but more nature codes than appear on neighborhood crime maps, including a variety of livability crimes (e.g., loud music, parties, fights, and other disturbances or

suspicious activity that frequently result in dispositions other than reports). Consequently, those calls which remained after the second sorting, though they represented only reported crimes, also represented a much greater sensitivity to criminal activity.

Current crime statistics made it possible to adjust for this greater sensitivity and arrive at a suitable scoring system. The primary task was to identify a realistic lower cutoff point—that is, the threshold at which a block would cross from “no significant distress” to “moderate distress.” Rather than designate a cutoff arbitrarily, it was thought that this score might be based on the lower cutoff of 5 reported crimes per block used in the Central study. This necessitated several calculations and adjustments.

Crime report data for the first 6 months of 1999 were made available to Phillips’ CCP/SAFE crime prevention specialist after data collection was completed. These statistics provided a concrete number (i.e., the total number of reports) by which the total number of police calls resulting from the first sorting, adjusted to reflect a 6-month period, could be divided. Thus it was possible to calculate, as a percentage, the greater sensitivity to criminal activity represented by the additional categories of nature and disposition codes. Similarly, by dividing this number into the total number of calls remaining after the second sorting, it was possible to calculate the greater sensitivity to criminal activity represented by the additional nature codes alone.

The scoring system outlined above was a direct result of these calculations. It was determined that the current methodology provided roughly a 500 percent greater sensitivity to criminal activity than Part I and II crime reports alone; consequently, the lower cutoff point used in the Central study was multiplied by 5.⁴¹ After adjusting for differences in length of data collection periods, the lower level cutoff was placed at 20; that is, a block total of 20 or fewer police calls was not considered indicative of significant distress. Three categories of distress were created to reflect a better sense of variance between blocks than would be possible using two categories; these categories were then converted to a 2-point scale for weighting purposes.

Of the 10 face blocks measured, 2 blocks were found to be at no significant risk of distress on the basis of proximity to crime; 3 blocks were found to be at moderate risk, 2 at serious risk, and 3 at severe risk (see map in Appendix G). The actual number of police calls per block varied dramatically, with a low of 14 and a high of 342. This latter total was attributed to the 2700 block of Bloomington Avenue. Significantly, the 2-block stretch of Bloomington Avenue accounted for 2 of the 3 blocks which demonstrated severe risk—and for 62 percent of police calls in the entire study area. This concentration

⁴¹ It is not known whether the Central study measured Part II crimes in addition to Part I crimes. If not, the system used to score this indicator in the current study is a more conservative one than that used in Central.

of criminal activity along the area's eastern edge skewed the results for the eight-block area as a whole. For example, when Bloomington Avenue was included in the count, the average number of police calls per block numbered 78, with a median of 38. However, when Bloomington Avenue was omitted from the count, the average dropped to 37, with a median of 32.

In general, total police calls per block decreased as one moved westward from Bloomington Avenue. A notable exception was the 2700 block of 13th Avenue, which posted 44 calls; however, 14 of these were attributed to the pay phone at the Stewart Park Community Center, which is technically on the 2600 block of 13th Avenue. Consequently, calls for the 2700 block of 13th may be skewed somewhat, and actual conditions may be more reflective of the moderate, rather than serious, risk category.

◆ *Limitations/Implications for Future Studies*

The method of data collection used for this indicator provides enhanced sensitivity to actual conditions in the study area. In many cases, properties that were clearly sources of distress on their blocks would not have been identified had crime *reports* been used as the sole measure of criminal activity. For example, police were called to a property on 14th Avenue 37 times between February 18 and July 22, 1999; nature codes included narcotics, loud music, fights, and domestic abuse, among others. Of these 37 calls, 15 met the criteria for the first sort and therefore counted toward total calls per block in this study. However, none of these calls resulted in a formal disposition (read: report); consequently, had the narrower method of measurement been used, this property would have failed to surface as a source of neighborhood distress.

The use of R.E.C.A.P. data offers distinct advantages over report-focused statistics such as those reflected in neighborhood crime maps. It is an extraordinarily flexible method, permitting the data collector to custom-tailor the selection of nature and disposition codes to a specific area so as to provide the most sensitive and relevant measurement possible. R.E.C.A.P. data provide a comprehensive measure of crime, not only encompassing less serious criminal and livability categories, but more serious categories as well. Indeed, homicides are not reflected on crime maps; this may seem odd, until one considers that the purpose of CCP/SAFE is to inform neighborhood residents about criminal activity in their areas—and residents are generally aware of homicides long before the next crime report arrives. Additionally, crime maps are inexact; the icons used on maps are not attached to particular addresses, and are sometimes difficult to decipher due to overlapping. In these instances, printouts are needed to verify statistics. R.E.C.A.P. data eliminates the need to access different maps and printouts, providing all data in one printout. Additionally, by providing R.E.C.A.P. with relevant nature and disposition codes, one can

obtain a printout, sorted by house number, of all pertinent criminal activity, and thus avoid the manual sorting necessitated in this study. Finally, it should be noted that CCP/SAFE encourages residents to be involved and proactive in their neighborhoods, and to report both criminal and suspicious activity. In this sense, the use of police calls rather than crime maps lends credence to the perspectives of residents, who are in by far the best position to assess criminal activity in their immediate environment, and who demonstrate by their proactive involvement that criminal activity—including those livability crimes which rarely result in actual reports—are of great concern to them.

A drawback associated with the use of R.E.C.A.P. data derives from the lack of specificity inherent in the nature codes SUSPP (suspicious person) and SUSPV (suspicious vehicle), which appeared again and again in the printout for the study area. These are vague descriptors, and though police officers report that they are most commonly associated with narcotics and prostitution offenses, there is no way to determine the actual nature of the activity. The nature code attributed to a given police call is based on the reason given for the call by the reporter; although the disposition code specifies the outcome of the call, the nature code remains unchanged even after the particular type of offense is determined by police. Consequently, offenses as varied as drug activity, prostitution, robbery, auto theft, and damage to property might be grouped together under the heading "suspicious," with no specificity given as to the nature of the call. Because these crimes only appear under their own codes in those instances when the reporter has prior knowledge of the specific offense, the "suspicious" categories would confound any attempt to obtain an accurate count of offenses that might potentially be included in their purview.

It should be noted that the block totals for this study have the potential to be misinterpreted based on comparison to crime statistics for other neighborhoods that may be derived from dissimilar methods of data collection. Such misinterpretations could in turn create an unfavorable impression of the area under study. Police and CCP/SAFE officers confirm that crime reports "are just the tip of the iceberg" when it comes to actual criminal activity. Indeed, data collected for this indicator reflect the reality that many police calls are made for every one report written. In the current study, after weeding out those calls that corresponded to the 82 nature codes that were *not* deemed to be significant causes of neighborhood distress (e.g., traffic violations, medical emergencies), calls nonetheless outnumbered reports 5 to 1. Although this ratio may not necessarily reflect conditions in other neighborhoods, these statistics must nonetheless be approached with caution, in order that comparisons not be made based on dissimilar methods of data analysis.

Two final limitations arise from the use of 1) blocks—whether defined as face or contiguous—as the sole unit of measurement, and 2) block totals as descriptors for individual properties. In the former case, because blocks were defined as face blocks for purposes of this study, criminal activity was considered a detriment to properties across the street but not to those across the alley. In the latter case, the use of block totals resulted in the same crime score being assigned to each property on a block, with no consideration for where on the block the incidents actually occurred. This had the effect of assigning equal weight to a property regardless of whether it was immediately adjacent to, or many properties away from, a location of high crime. In scoring the indicator “proximity to vacant units or land” in his study, Myott assigned higher scores to those properties that were on either side of, or behind, a vacant property, and lower scores to those within a block of the property.⁴² Although such a scoring design would be of much greater descriptive value, its feasibility for measuring criminal activity is doubtful. Indeed, the labor involved in scoring even a small area might be prohibitive, due primarily to the enormous disparity between occurrences of boarded and vacant properties and numbers of police calls (or reports, for that matter). Nonetheless, resident reports suggest that actual proximity is an important variable in their perceptions of criminal activity. In assessing the affect of crack houses, for example, one resident remarked that “there’s not as high an impact as you might think, except to the neighbors immediately next door.” This resident suggested that only those properties that are within two houses of a high crime location be considered at risk of distress. These sentiments, which were echoed by others, highlight the need to be mindful of scoring limitations and to search for improved methods.

As previously mentioned, the Minneapolis Police Department is in the process of reconfiguring their computer systems. Neighborhood crime maps that were unavailable during a transition from GeoMaster to Map Info are once again available, and the system is reported to be running fairly smoothly. It is anticipated that crime maps and related information will be available on the Internet at some time in the future, though details have yet to be released. At present, the CAPRS system tracks all crime reports by address, while R.E.C.A.P.’s D-Base system keeps track of all calls by address. Though the two systems have not been compatible in the past, this is expected to be remedied by the first of the year.

Proximity to Abandoned Properties

◆ *Data Collection*

The property status survey discussed in an earlier section of this report, the results of which appear in Appendix A, provided the basis for measurement of proximity to abandoned properties. For purposes

⁴² Myott, 1999.

of this study, vacant lots were not considered antecedents to distress, for two reasons. First, the intent of this study was to replicate as closely as possible the methodology of the Central study,⁴³ which was solely concerned with boarded buildings. More importantly, and as previously-discussed, it was discovered through resident interviews that vacant lots are sometimes viewed as an asset, rather than a liability, to the neighborhood. This view appears to run counter to some of the literature on housing abandonment. For example, Goetz and associates cite studies in which vacant lots were found to compromise the attractiveness of neighborhoods in the eyes of current and potential residents.⁴⁴ Residents were also found to equate disturbances at vacant lots with a loss of social control. Similarly, Myott⁴⁵ maintains that vacant lots negatively affect the perceptions of both residents and realtors, eventually leading to a number of adverse consequences for neighboring-homeowners. As previously discussed, residents in the eight block area took a different view, alternately characterizing vacant lots as "green space" that provides relief from high density, a larger yard for neighbors who purchase the land as side lots, a community garden, or a nice open space to "play games with the kids."

This is not to say that vacant lots are always, or even usually, an asset to a neighborhood. As demonstrated by Goetz, et al., these properties may decrease the value of neighboring homes, which may in turn lead the owners of these homes to disinvest. The resultant effects on neighborhoods are harmful, to be sure. Nonetheless, resident reports in the study area reveal the subjective lens through which vacant lots are viewed, and caution against the assumption that such properties are inherently objectionable.

Boarded properties, unlike vacant lots, are consistently equated with adverse consequences, both in housing literature and in resident reports. For this reason, only currently-boarded properties were considered in measuring proximity to abandoned properties for this study.

As stated above, the neighborhood map generated by the property status survey provided the basis for measurement of this indicator. Boarded buildings on each face block were totaled and coded for later data entry.

◆ *Scoring and Results*

Each property in the study area received a score based on its proximity to abandoned properties, as follows:

- 0 – No boarded houses on the block
- 1 – One boarded house on the block
- 2 – Two or more boarded houses on the block

⁴³ Mardock, 1998.

⁴⁴ Philadelphia City Planning Commission, as cited in Ed Goetz, Kristin Cooper, Bret Thiele & Hin Kin Lam, *The Fiscal Impact of the St. Paul Houses to Homes Program* (Minneapolis, February 1997). Published on the NPCR web site, <http://freenet.msp.mn.us/org/npcr>.

⁴⁵ Myott, 1999.

A map of proximity to boarded properties in the study area is attached as Appendix H. Of the 166 residential properties, 9 properties—or roughly 5 percent—were boarded at the close of data collection. These properties were to some extent dispersed throughout the study area, with the exception of a grouping of 3 in fairly close proximity near the intersection of 15th Avenue and 27th Street. Because of scoring limitations discussed below, however, the blocks on which these properties are located received more favorable scores than the 2600 block of 14th Avenue, which had one boarded property on either side of the street near the middle of the block. Of the 10 face blocks surveyed,⁴⁶ 2 were without boarded properties, 5 had 1 boarded property, and 3 had 2 or more boarded properties. The number of boarded properties per block ranged from 0 to 3.⁴⁷

◆ *Limitations/Implications for Future Studies*

As previously stated, property status in the study area is constantly in flux. Indeed, during the two-month data collection period for this study, the number of boarded buildings rose from 8 to 9. It is therefore important to remain mindful that the measurement of this indicator, as others, represents a single observation in time rather than a static condition. Given a sufficient level of resident involvement, however, this indicator could be updated on a regular basis.

An additional limitation has to do with the location of a boarded property on its respective block. The current study, like the Central study, assigned scores to individual properties based on the total number of boarded properties on the entire block.⁴⁸ This was problematic in those cases where boarded properties were located at or near block ends, in which case scores were sometimes more reflective of chance than actual proximity. For example, a boarded property at the southern end of the 2600 block of 15th Avenue counted against the properties at the opposite end of that block—but not against the property directly across 27th Street (see map in Appendix H). Additionally, as with the “proximity to crime” indicator, because blocks were defined as block faces, boarded properties were considered to be a detriment to houses across the street but not across the alley.

As previously discussed, Myott improved on this method by assigning higher scores to those properties that were on either side of, or behind, a vacant property, and lower scores to those that were within a block of the property.⁴⁹ Though this method was more indicative of true proximity, it appears that properties directly across the street from boarded buildings received lower scores than those across the alley. A better method might be to assign greater weights to all properties that are directly adjacent to boarded properties, including those behind, in front of, and to either side of the property.

⁴⁶ Although this study is concerned with an 8-block area, it was necessary to survey the western side of 12th Avenue and the eastern side of Bloomington Avenue in order to accurately measure proximity; consequently, 10 face blocks were surveyed.

⁴⁷ There are 3 boarded properties on the eastern side of the 2700 block of Bloomington Avenue, though this area is outside the study area and, consequently, does not appear on the eight-block map.

⁴⁸ Mardock, 1998.

⁴⁹ Myott, 1999.

RISK INDEX

Each residential property in the eight-block area emerged from the foregoing data collection and analyses with 7 scores, each of which corresponded to one of the 7 indicators examined in this study: property tax delinquency, water arrears, non-owner occupancy, code violations, building condition, proximity to areas of high crime, and proximity to abandoned properties. All indicators had a minimum score of 0 and a maximum of 2, with the exception of water arrears, which was weighted 200% to reflect the significance of this indicator for property distress. The final step in the development of the early warning system for the study area was to total the 7 scores for each property, thus arriving at an overall property risk score. The lowest possible score was 0, while the highest possible score was 16.

Once risk scores were determined, it was necessary to reduce them to a more manageable and useful form. The scoring system used for this purpose was based on the Central model,⁵⁰ with one significant modification. The Central study placed the lower threshold at 4 points; i.e., a property with a score of 3 was considered to be at no significant risk of abandonment, while a property with a score of 4 was considered to be at moderate risk. The current study placed this threshold at 5, in order to avoid the possibility that a property might be placed in a risk category due to factors over which the property owner had no control: proximity to crime and abandoned properties. Indeed, interviews with residents on blocks with boarded buildings and relatively high levels of crime suggested that these factors alone may not be significant causes of distress. Of 12 people interviewed, only 1 reported any thoughts of leaving the area due primarily to crime, and none reported significant levels of concern about boarded buildings. This is not to say that these factors are unimportant to residents, nor that they should be disregarded as contributors to housing distress. However, resident reports raise interesting and important questions about the weight attributed to those factors that are not under the direct control of property owners.

Statistics alone are imperfect devices for predicting housing distress or abandonment. Resident reports in this study serve as a reminder that the causes of property distress are confounding and sometimes impossible to quantify. For purposes of this study, it was decided that an inaccurate portrayal of property distress would result if property owners who pay their bills, have no code violations, and live in and maintain their properties, were placed in risk categories on the sole basis of the two "proximity" indicators. The lower threshold was therefore placed at 5, ensuring that all "at-risk" properties were in fact experiencing distress relative to at least one non-proximity indicator.⁵¹ Subsequent scoring thresholds were adjusted accordingly, resulting in the following risk index:

⁵⁰ Mardock, 1998.

⁵¹ An alternative would be to simply attribute a lesser weight to crime and abandoned properties; however, data analysis in the current study was too far advanced to make this practicable.

- 0 - 4.99 - No significant risk
- 5 - 6.99 - Moderate risk
- 7 - 8.99 - Serious risk
- 9 - 16 - Severe risk

Actual risk scores of properties in the study area ranged from 0 to 12. Of the 166 total residential properties, 120—or 72 percent—appear to be experiencing no significant distress, while 31 (19 percent) appear to be experiencing moderate distress, 10 (6 percent) serious distress, and 5 (3 percent) severe distress. A “risk of abandonment” map for the study area is attached as Appendix I. It should be noted that even severe levels of distress do not ensure that a property will be abandoned, just as those properties that appear to be unaffected by distress cannot be said to be free of risk. However, it is assumed that a positive relationship exists between levels of distress and risk of abandonment; to the extent that this assumption is valid, the risk index developed herein will be useful.

Properties deemed to be at severe risk, while somewhat scattered, are concentrated in the eastern half of the study area, while those deemed to be at serious risk are noticeably concentrated in the central portion of the study area, on the western side of 14th Avenue. A majority (52 percent) of the moderate risk properties can be found on 14th Avenue as well, though these are more evenly distributed on both sides of the street. In all, 24 properties along the 2-block stretch of 14th Avenue appear to be at risk. This represents 52 percent of all at-risk properties, making for a high concentration of distress in the central portion of the study area. The eastern side of 15th Avenue is notable as well, with all four residential properties falling into risk categories.

Just as the central portion of the study area is notable for its concentration of at-risk properties, the western portion is notable for a disproportionately small number of such properties. Interestingly, the eastern side of 13th Avenue, which lies directly behind the greatest concentration of at-risk properties in the study area (on the western side of 14th Avenue), contains no at-risk properties whatsoever. The western side of 13th fares nearly as well, with only one “moderate risk” property on each block. Moving farther west, the 2-block stretch of 12th Avenue contains two at-risk properties per block. Although the 9 face blocks on 12th and 13th Avenues make up 38 percent of the total study area, they account for only 13 percent of at-risk properties.

Finally, Bloomington Avenue falls somewhere in the middle, containing neither the highest nor the lowest concentrations of at-risk properties. While 43 percent of residential properties on the two-block stretch are deemed to be at-risk, the majority reflect only moderate levels of distress.

RELATIONSHIPS AMONG INDICATORS

Descriptive statistics are provided to explore relationships among selected indicators, as follows.

Absentee Ownership and Housing Condition

In a previous section, it was determined that as the distance of an absentee owner from a property in the study area increases, housing conditions at that property tend to worsen. In this section, the relationship between absentee ownership (as measured by homestead status) and housing condition is revisited; in this instance, the housing condition of properties that are owner-occupied will serve as a point of comparison.

TABLE 1
Relationship of Absentee Ownership to Housing Condition

	Housing Condition				Total
	Excellent	Good	Fair	Poor	
Owner occupied	40%	38%	19%	3%	103 (100%)
Non-owner occupied	19%	21%	38%	22%	63 (100%)

As shown in Table 1, a strong relationship exists between non-owner occupancy and declining housing condition in the study area. While 78 percent of owner occupied properties are in excellent or good condition, only 40 percent of non-owner occupied properties fare as well. Likewise, only 22 percent of owner occupied properties are in fair or poor condition, compared to 60 percent of non-owner occupied properties. The largest disparity is seen in the poor condition category, which includes nearly a quarter of non-owner occupied properties compared to only 3 percent of owner occupied properties.

Absentee Ownership and Criminal Activity

Because absentee ownership is often thought to increase the potential for criminal activity, the relationship between these two variables in the study area was investigated. Please note that the column headed "none" refers not to an absence of criminal activity, but to levels of criminal activity that were determined to be insignificant.

TABLE 2
Relationship of Absentee Ownership to Criminal Activity

	Criminal Activity (as measured by block totals)				Total
	None	Moderate	Serious	Severe	
Owner occupied	21%	48%	14%	17%	103 (100%)
Non-owner occupied	18%	44%	11%	27%	63 (100%)

As shown in Table 2, the relationship of absentee ownership to criminal activity (by block) in the study area is much weaker than that of absentee ownership to housing condition. A significant percentage of both owner occupied (69 percent) and non-owner occupied (62 percent) properties are found on blocks with the lowest levels of criminal activity ("none" and "moderate"). Additionally, owner occupied properties are slightly more likely to be located on blocks with serious levels of criminal activity. However, non-owner occupied properties were 63 percent more likely than owner occupied properties to be located on blocks with severe levels of criminal activity.

Absentee Ownership and Overall Risk

Additional analyses were performed to explore the relationship between absentee ownership and overall risk of distress/abandonment.

TABLE 3
Relationship of Absentee Ownership to Overall Risk

	Risk of Distress/Abandonment				Total
	None	Moderate	Serious	Severe	
Owner occupied	95%	4%	-	1%	103 (100%)
Non-owner occupied	35%	43%	16%	6%	63 (100%)

As shown in Table 3, a strong relationship exists between absentee ownership and risk of distress/abandonment in the study area. A whopping 95 percent of owner occupied properties are found to be at no risk of abandonment, with an additional 4 percent at only moderate risk. Non-owner occupied properties, on the other hand, are distributed among the 4 categories, with the largest percentage (43 percent) falling into the moderate risk category. Significantly, only 1 in 20 owner occupied properties is currently at any level of risk, compared to 13 in 20 non-owner occupied properties.

Because properties were assessed 2 points if non-homesteaded and 0 points if homesteaded, it is possible, and even likely, that the above-described relationship is attributable in part to the way in which non-owner occupancy was scored. However, even if all non-owner occupied properties were upgraded to the next lower level of risk, they would nonetheless outnumber owner occupied properties in risk categories by a substantial margin.

Housing Condition and Proximity to Criminal Activity

Criminal activity is often said to increase the potential for housing abandonment. Additionally, as discussed in a previous section of this report, fiscal abandonment (or disinvestment) is a frequent

precursor to the actual physical abandonment of a property. It seems reasonable, then, to expect that properties which are in proximity to higher levels of crime may evidence greater levels of disinvestment. The relationship between proximity to criminal activity and housing condition for properties in the study area was investigated to test this hypothesis.

TABLE 4
Relationship of Housing Condition to Proximity to Criminal Activity

<u>Housing Condition</u>	Criminal Activity (as measured by block totals)				Total
	None	Moderate	Serious	Severe	
Excellent	23%	40%	13%	24%	53 (100%)
Good	17%	54%	12%	17%	52 (100%)
Fair	21%	43%	11%	25%	44 (100%)
Poor	11%	53%	18%	18%	17 (100%)

As shown in Table 4, no relationship appears to exist between proximity to criminal activity and housing condition. Significantly, each of the 4 housing condition categories are similarly distributed across the four categories of criminal activity, with the greatest percentage in each condition category located on blocks with moderate levels of crime and the next greatest percentage on blocks with severe levels of crime. Additionally, properties in the "excellent" and "good" condition categories were as likely to be located on blocks with severe levels of criminal activity as on blocks with insignificant levels.

A word of caution: The foregoing analysis reflects the use of block totals as a measure of criminal activity. The apparent absence of a relationship between *proximity* to areas of criminal activity and housing condition does not preclude a relationship between *specific* areas of criminal activity and housing condition. That is, were criminal activity to be measured on a property-by-property basis, a relationship might indeed be found to exist.

Proximity to Abandoned Properties and Proximity to Criminal Activity

Just as boarded properties are thought to contribute to criminal activity, the existence of criminal activity is thought to contribute to property abandonment. The two proximity variables used in this study were analyzed to explore the relationship between boarded properties and crime in the eight-block area.

TABLE 5
Relationship of Proximity to Boarded Properties and
Proximity to Criminal Activity

<u>Boarded Properties Per Block</u>	<u>Criminal Activity (as measured by block totals)</u>				<u>Total</u>
	<u>None</u>	<u>Moderate</u>	<u>Serious</u>	<u>Severe</u>	
0	50.0%	-	-	50.0%	2 (100%)
1	20.0%	40.0%	20.0%	20.0%	5 (100%)
2 or more	-	33.3%	33.3%	33.3%	3 (100%)

As shown in Table 5, the relationship between boarded properties and criminal activity is ambiguous. While one of the blocks with no boarded properties experienced insignificant levels of criminal activity, the other experienced severe levels. However, the largest percentage of blocks with 1 boarded property (40 percent) are also blocks with moderate levels of criminal activity. Additionally, all blocks with 2 or more boarded properties are also blocks on which criminal activity is a concern, though these blocks are equally distributed among the moderate, serious, and severe crime categories.

SUMMARY AND RECOMMENDATIONS

In this study of an eight-block area in Minneapolis' Phillips neighborhood, 7 indicators were measured which are believed to be associated with housing distress. They are: property tax delinquency, water arrears, non-owner occupancy, code violations, housing condition, proximity to areas of high crime, and proximity to abandoned properties. Data collected during this process were combined with a base data set of housing characteristics to develop a mappable database of the study area. Methodology, scoring and results, limitations and implications for future studies were discussed for each indicator. Results can be summarized as follows:

Property tax delinquency: 4 percent of properties were found to have tax delinquencies of one or more years since 1990. Delinquencies tended to be concentrated in the north-central section of the study area.

Water arrears: 8 percent of properties were found to have significant water bill arrears. Of these, 70 percent were situated in the northern half of the study area. The greatest concentration of delinquencies was found in the northeastern section of the study area, with the lowest concentration in the southwestern section.

Non-owner occupancy: 38 percent of properties were non-owner occupied. These properties were fairly dispersed throughout the study area.

Code violations: 5 percent of properties carried significant code violations. These properties were dispersed fairly evenly throughout the study area, with a slight concentration in the central section.

Housing condition: 32 percent of properties were in excellent condition, 31 percent in good condition, 27 percent in fair condition, and 10 percent in poor condition. Properties in all categories were distributed fairly evenly throughout the study area, with only moderate variation among blocks.

Proximity to areas of high crime: Of the 10 face blocks measured, 2 were found to be at no significant risk of distress on the basis of crime, 3 were at moderate risk, 2 at serious risk, and 3 at severe risk. The actual number of police calls per block varied dramatically, with a low of 14 and a high of 342. This latter total was attributed to the 2700 block of Bloomington Avenue. The 2-block stretch of Bloomington Avenue accounted for 2 of the 3 blocks which demonstrated severe risk, and for 62 percent of police calls in the entire study area. In general, total police calls per block decreased as one moved westward.

Proximity to abandoned properties: The study area contains 9 boarded properties, representing 5 percent of total properties. These properties were somewhat dispersed throughout the study area, with the exception of a grouping of 3 in the east-central section. Of the 10 face blocks surveyed, 2 were without boarded properties, 5 had 1 boarded property, and 3 had 2 or more boarded properties. The number of boarded properties per block ranged from 0 to 3.

Each residential property in the study area emerged from this process of data collection and analysis with 7 scores; these scores were then summed to arrive at an overall "risk of distress/abandonment" score for each property. This risk index represents an "early warning system" which can be used by the neighborhood to inform abandonment prevention and revitalization efforts and land use policy.

The lowest possible risk score was 0, the highest 14. Actual scores ranged from 0 to 12. Of the 166 total residential properties in the study area, 72 percent were found to be experiencing no significant distress, while 19 percent were experiencing moderate distress, 6 percent serious distress, and 3 percent severe distress. The greatest concentration of at-risk properties was situated in the central portion of the study area on 14th Avenue. A lesser concentration was found in the eastern section, while a disproportionately small number of at-risk properties were found in the western section.

Finally, selected indicators were subjected to analysis in order to explore potential relationships between: 1) absentee ownership and housing condition; 2) absentee ownership and criminal activity;

3) absentee ownership and overall risk of abandonment; 4) housing condition and proximity to criminal activity; and 5) proximity to boarded properties and proximity to criminal activity. These findings can be summarized as follows:

Absentee ownership and housing condition: There appears to be a strong relationship between absentee ownership and declining housing condition in the study area, with 78 percent of owner occupied properties in excellent or good condition while only 40 percent of non-owner occupied properties fare as well. Nearly a quarter of non-owner occupied properties are in the poor condition category, compared to only 3 percent of owner occupied properties.

Absentee ownership and criminal activity: There does appear to be a relationship between absentee ownership and criminal activity. Though a majority of both owner occupied (69 percent) and non-owner occupied (62 percent) properties are found on blocks with insignificant or moderate levels of criminal activity, the latter were 63 percent more likely than their owner occupied counterparts to be located on blocks with severe levels of criminal activity.

Absentee ownership and overall risk: There appears to be a strong relationship between absentee ownership and overall risk, with 95 percent of owner occupied properties experiencing no risk of abandonment, compared to only 35 percent of non-owner occupied properties. While only 1 in 20 owner occupied properties was at any level of risk, 13 in 20 non-owner occupied properties were included in risk categories. However, the correlation may not be as strong as it appears due to scoring limitations. See page 32 for a discussion of this point.

Housing condition and proximity to criminal activity: No relationship appears to exist between proximity to criminal activity and housing condition. Properties in the "excellent" and "good" condition categories were as likely to be located on blocks with severe levels of criminal activity as on blocks with insignificant levels. This analysis reflects the use of block totals for crime rather than a property-by-property measurement. See page 33 for a discussion of this point.

Proximity to abandoned properties and proximity to criminal activity: The relationship between boarded properties and criminal activity is ambiguous. While one of the blocks with no boarded properties experienced insignificant levels of criminal activity, the other experienced severe levels. However, the largest percentage of blocks with 1 boarded property (40 percent) are also blocks with moderate levels of criminal activity. Additionally, all blocks with 2 or more boarded properties are also blocks on which criminal activity is a concern, though these blocks are equally distributed among the moderate, serious, and severe crime categories.

There is currently no single agency in Phillips which is specifically empowered to implement housing initiatives for the neighborhood as a whole. Nonetheless, it is recommended that this study—and others that may follow it—be used to inform emerging residential redevelopment and land use policies in the neighborhood. Just as importantly, it is recommended that such policies be developed with the full and active cooperation of those who know the neighborhood best and are most affected by its policies: the residents of Phillips.

Due to the limited scope of this study, specific recommendations are directed to the Phillips Neighborhood Network and the residents of the eight-block area. They include:

Database. Because the database for the eight-block area will be only as useful as it is current, all efforts should be made to keep it updated. Resident participation will be a key factor in this regard. It is recommended that the residents who participated in this study be encouraged to continue, and expand, their involvement.

Block clubs. Though block clubs are a strong force in the study area, such organizations are not currently active on all blocks. It is recommended that new block clubs be formed, and those which currently exist expanded, in order to increase neighborhood cohesion. Given the sizable number of rental properties in the area, the involvement of renters and absentee owners is strongly advised.

Crime prevention efforts. Three blocks in the study area show levels of crime that are of particular concern: the 2700 block of 14th Avenue, and the two-block stretch of Bloomington Avenue. Because Bloomington Avenue alone accounted for nearly two-thirds of total crime in the entire study area, the neighborhood may want to consider a targeted crime prevention initiative, perhaps in conjunction with Community Crime Prevention/SAFE. Such an initiative should also involve block clubs and concerned residents on the eastern side of Bloomington Avenue.

Absentee owners. Non-owner occupied properties in the study area are at much greater risk of distress or abandonment than their owner occupied counterparts. Residents and block clubs should work in concert with absentee owners to develop innovative ways of reducing potential problems. Tighter inspections or rental licensing restrictions might provide an incentive for those property owners who continue to allow their buildings to deteriorate; residents could advocate for such measures.

Finally, although this study attempts to predict housing abandonment, the actual predictive capacity of the chosen indicators has yet to be tested. Further research is needed in this area, with particular attention to methods of data collection and measurement.

APPENDIX A



Map 1
Property Status (8/99)

□	Residential	(166)
▨	Boarded residence	(9)
▩	Vacant lot	(39)
▧	Community garden	(4)
■	Non-residential	(9)

APPENDIX B

E 26TH ST

E 27TH ST

E 28TH ST

12TH AV S

13TH AV S

14TH AV S

15TH AV S

BLOOMINGTON AV S

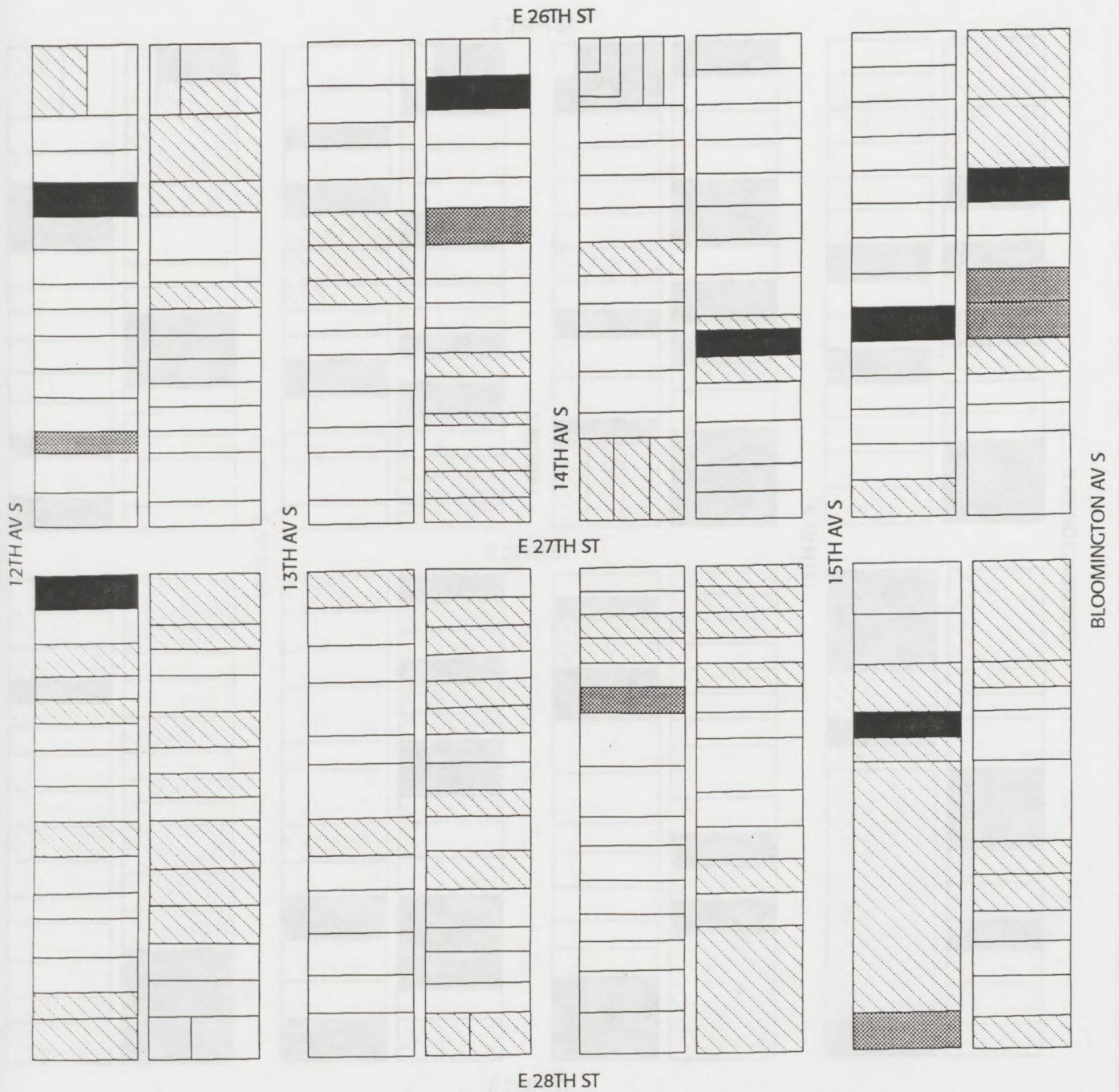


Map 2




Property Tax Delinquency (7/99)

- No delinquency (159)
- 1 year delinquent (5)
- 2+ years delinquent (2)
- Boarded, vacant, non-res. (61)

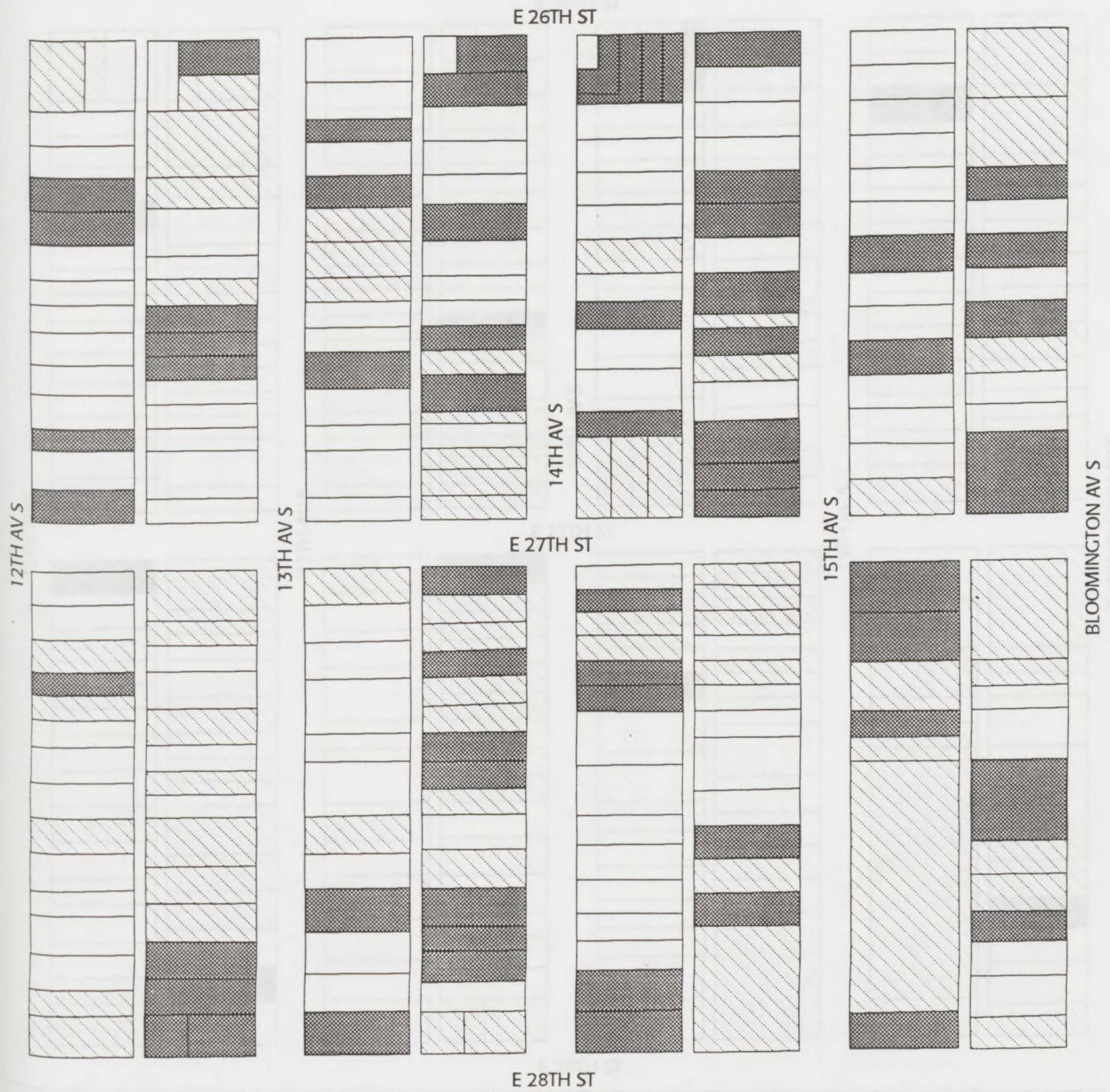
APPENDIX C



Map 3
Water Bill Arrears (7/99)

	\$600-\$1000	(6)
	Over \$1000	(7)
	Boarded, vacant, non-res.	(61)

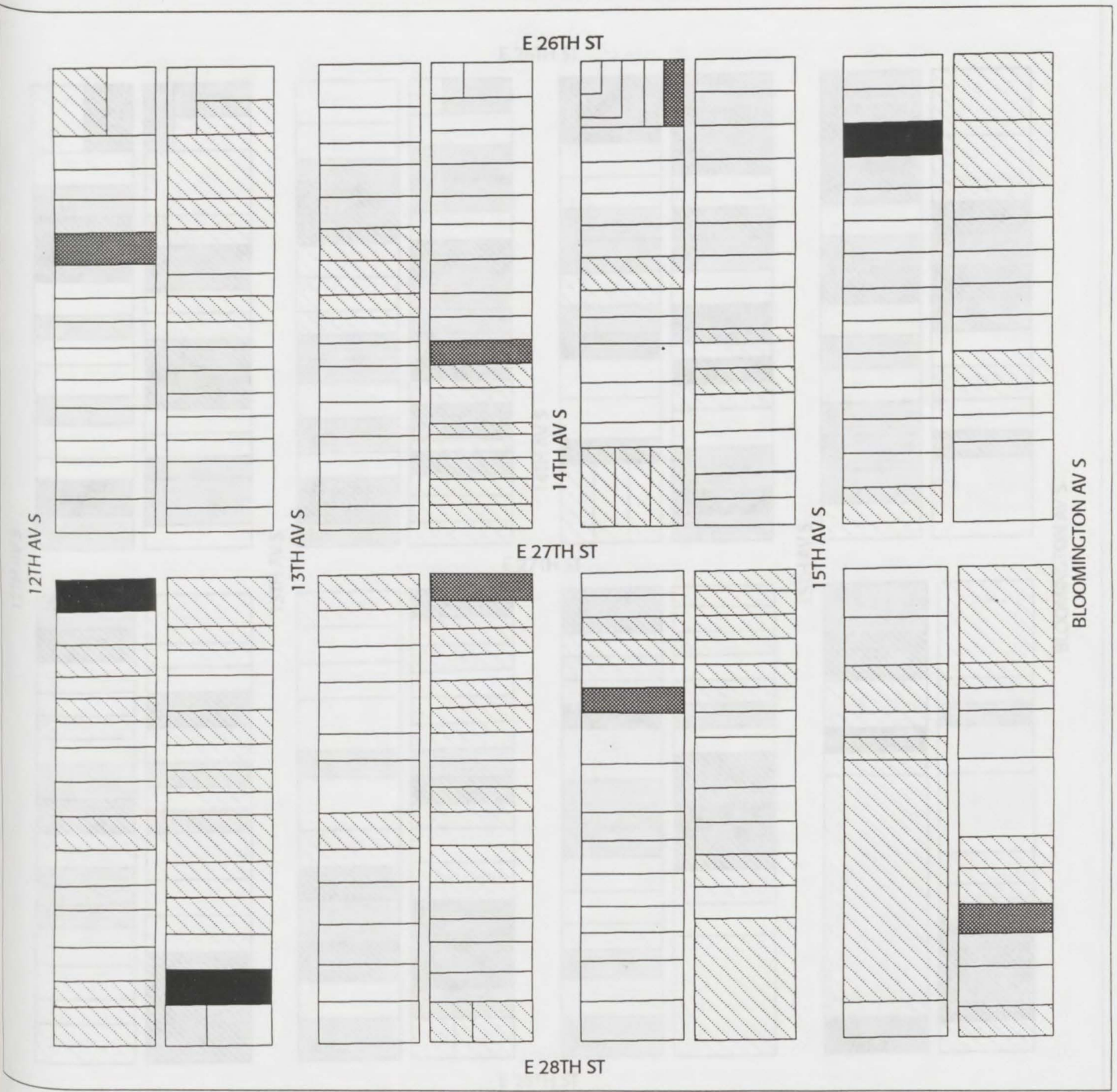
APPENDIX D



Map 4
Homestead Status (5/99)

□	Homestead	(103)
▨	Non-homestead	(63)
▤	Boarded, vacant, non-res.	(61)

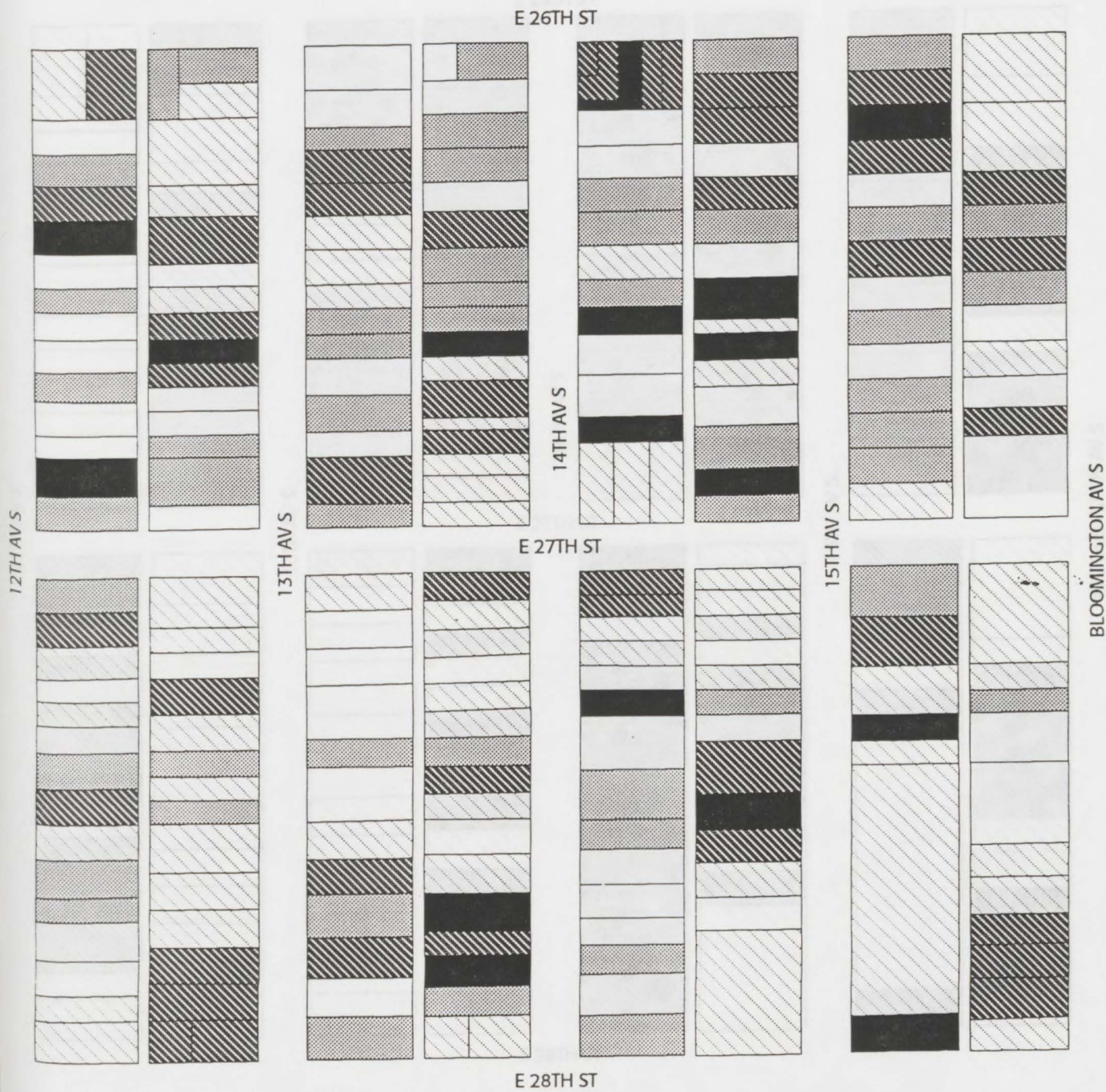
APPENDIX E



Map 5
Open Code Violations (7/99)

□	0 to 3 violations	(157)
▤	4 to 9 violations	(6)
■	10 or more violations	(3)
▨	Boarded, vacant, non-res.	(61)

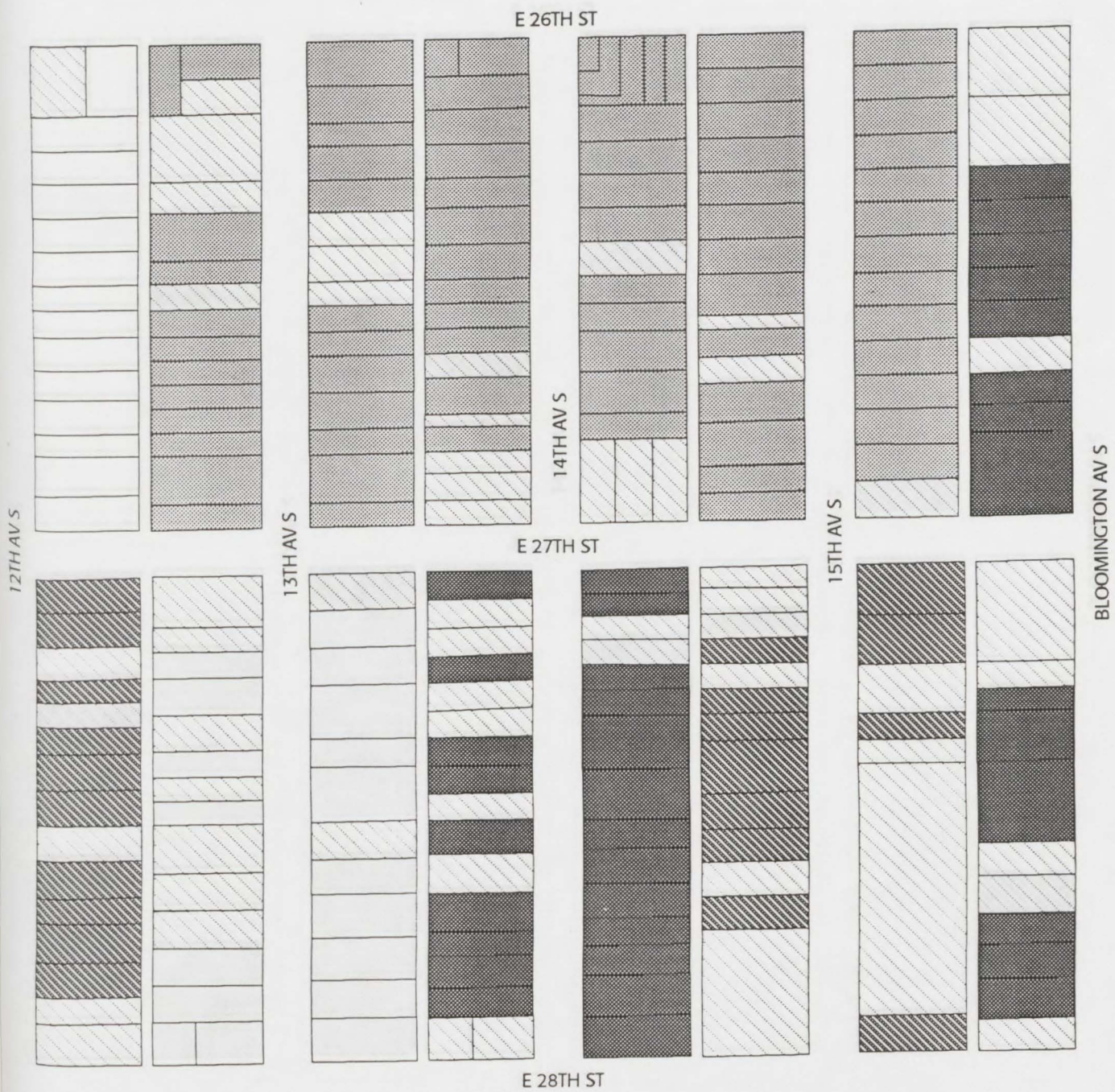
APPENDIX F



Map 6
Housing Condition (8/99)

□	Excellent	(53)
▨	Good	(52)
▧	Fair	(44)
■	Poor	(17)
▩	Boarded, vacant, non-res.	(61)

APPENDIX G



Map 7
Police Calls (1/1 to 8/10/99)

□	Block total of 0-20 (No risk)	(32)
■	Block total of 21-40 (Moderate risk)	(77)
▨	Block total of 41-60 (Serious risk)	(21)
■	Block total over 61 (Severe risk)	(36)
▩	Boarded, vacant, non-res.	(61)

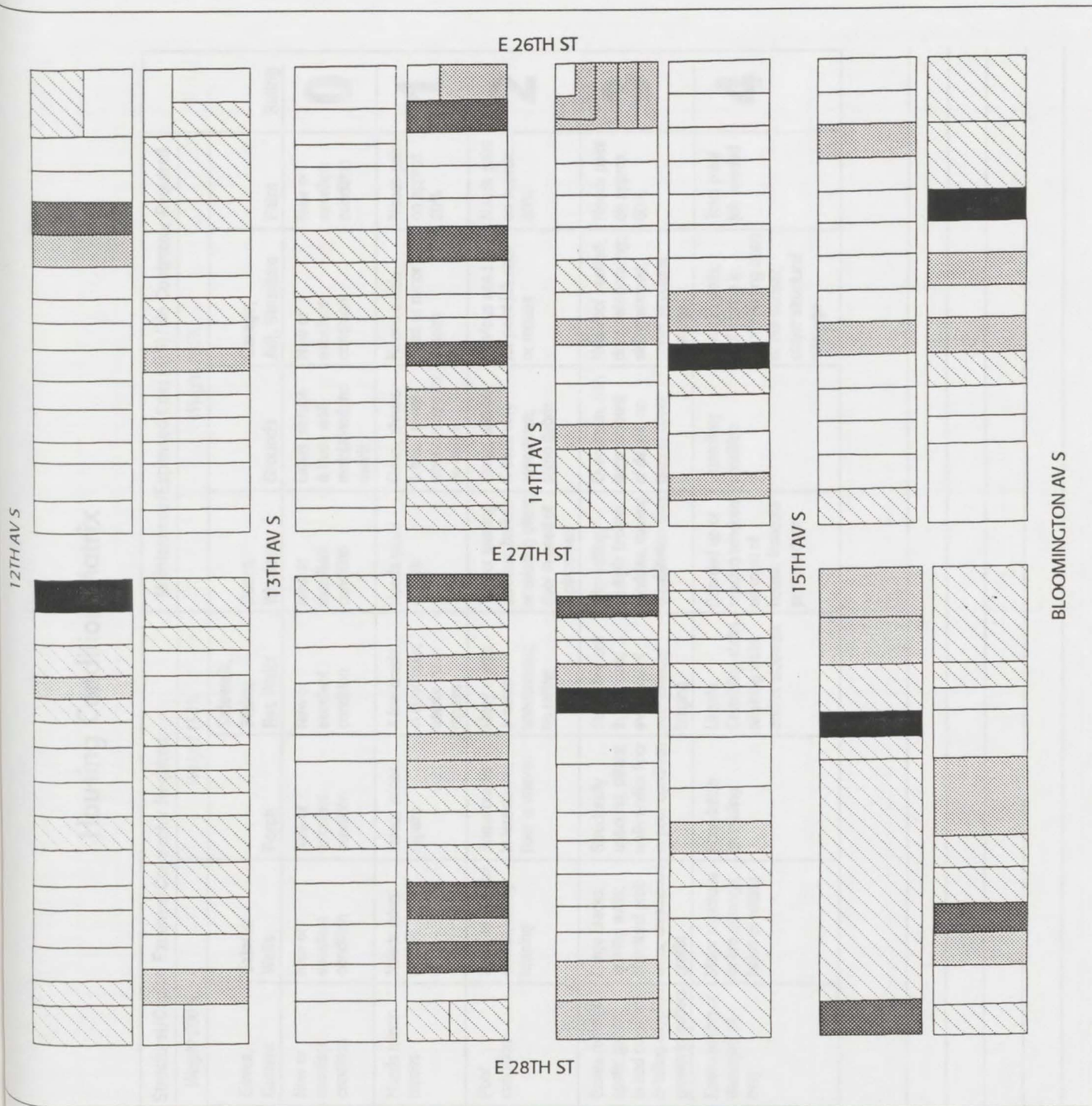
APPENDIX H



Map 8
Proximity to Boarded Properties (8/99)

□	No boarded properties on block	(23)
▒	1 boarded property on block	(101)
■	2+ boarded properties on block	(42)
▨	Boarded properties	(9)
□	Vacant, non-res, cmty garden	(52)

APPENDIX I



Map 9
Risk of Abandonment (8/99)

	No risk	(120)
	Moderate risk	(31)
	Serious risk	(10)
	Severe risk	(5)
	Boarded, vacant, non-res.	(61)

Housing Condition Matrix

Rating	Structural/Capital Expense/Contractor Required					Maintenance/Expensed Cost (IRS)/No Contractor Required				Rating
	<i>Weight 200%</i>			<i>Weight 150%</i>		<i>Weight 100%</i>				
	Roof	Eaves, Gutters	Exterior Walls	Porch	Sidewalk, Stairs, Ret. Walls	Doors, Windows	Grounds	Garage, Adj. Structure	Paint	
0	New or excellent condition	New or excellent condition	New or excellent condition	New or excellent condition	New or excellent condition	New or excellent condition	Grass, shrubs & trees well maintained; no debris	New or excellent condition	New or excellent condition	0
1	Good condition. A few curling shingles; showing wear	Needs minor repairs	Needs minor repairs	Needs minor repairs	A few cracks in structures; needs minor repairs	Needs minor repairs	Grass, shrubs & trees somewhat overgrown; no debris	Needs a little paint or minor repairs	Needs paint on approx. 20%	1
2	Many shingles popping up; roof buckling a bit	Poor condition	Small to medium cracks; siding missing	Some cracks in foundation; floor is uneven	Many cracks & some unevenness; no railing	Torn or missing screens; broken or missing glass; door in need of replacement	Grass, shrubs & trees very overgrown; some debris	Obvious need for paint job and/or repairs	Needs paint on approx. 40%	2
3	Many missing shingles or major sagging	Eaves rotting in spots; gutters in bad condition or falling off; plant growth in gutters	Large cracks; bowing walls; structural problems; unremoved graffiti	Structurally unsound; pillars, walls and/or floor in poor condition	Structures are in disrepair; evidence of subsidence/bulging	Trim rotting; multiple broken windows; missing combination door	Overgrown, with large amount of debris; no ground cover	New roof needed; door deteriorating; siding warped; some structural damage	Needs paint on approx. 60%	3
4	Holes or missing sections; badly in need of replacement	Eaves rotting or damaged all over	Major structural or fire damage, holes or rotting	Foundation crumbling	Unsafe. Crumbling stairs, retaining walls, and/or sidewalk	Boarded up or missing windows on most of house; insecure primary door	Unsanitary condition	Holes in walls; roof caving in; door hanging open or not secure; major structural damage	Total paint job needed	4

Notes: _____

APPENDIX L

HOUSING CONDITION SURVEY RESULTS

Lowest possible score:	0	Total residential properties in 8-block area:	166
Highest possible score:	52	Average no. of residential properties per block face:	10.3
Lowest actual score:	0		
Highest actual score:	32	Number of boarded properties surveyed:	15
		Mean score:	21
Total of all scores:	1862.5	Median score:	19.5
Mean score:	11.2	Range:	8 - 33.5
Median:	9.5		
Mode:	9.0		

STATS - BLOCK BY BLOCK

2600 block 12th

Odd face only:

Total residential properties:	14
Total score:	143.5
Mean:	10.3
Median:	7.5
Range:	1 - 32

Odd face:

Total residential properties:	10
Total score:	72
Mean:	7.2
Median:	6.0
Range:	0 - 16

Odd face:

Total residential properties:	13
Total score:	142.5
Mean:	11.0
Median:	9.0
Range:	0 - 31.5

2700 block 12th

Odd face only:

Total residential properties:	10
Total score:	97.5
Mean:	9.8
Median:	9.8
Range:	1 - 19.5

2600 block 14th

Even face:

Total residential properties:	13
Total score:	151.5
Mean:	11.7
Median:	11.5
Range:	2 - 26

2700 block 15th

Even face:

Total residential properties:	7
Total score:	76.5
Mean:	10.9
Median:	8.0
Range:	0 - 25.5

2600 block 13th

Even face:

Total residential properties:	12
Total score:	127
Mean:	10.6
Median:	10.0
Range:	2 - 25

Odd face:

Total residential properties:	14
Total score:	193.5
Mean:	13.9
Median:	12.0
Range:	2 - 31

Odd face:

Total residential properties:	4
Total score:	84.5
Mean:	21.1
Median:	22.8
Range:	9 - 30

Odd face:

Total residential properties:	12
Total score:	98
Mean:	8.2
Median:	7.5
Range:	0 - 17

2700 block 14th

Even face:

Total residential properties:	9
Total score:	128
Mean:	14.2
Median:	14.0
Range:	2 - 27

2600 block Bloomington

Even face only:

Total residential properties:	8
Total score:	82.5
Mean:	10.3
Median:	10.8
Range:	2.5 - 15.5

2700 block 13th

Even face:

Total residential properties:	8
Total score:	110
Mean:	13.8
Median:	15.0
Range:	6 - 20

Odd face:

Total residential properties:	13
Total score:	113.5
Mean:	8.7
Median:	7.3
Range:	2 - 26

2700 block Bloomington

Even face only:

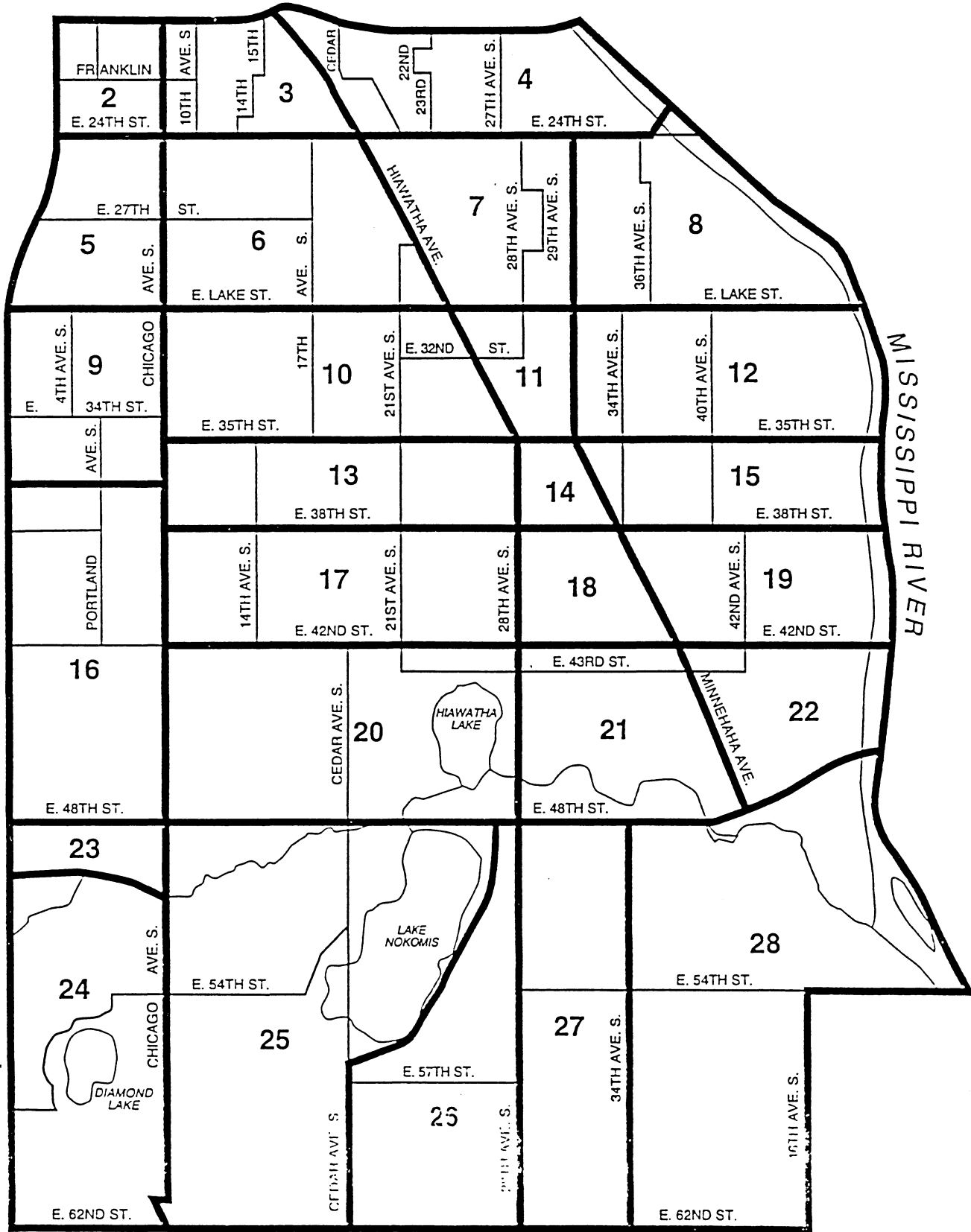
Total residential properties:	6
Total score:	75
Mean:	12.5
Median:	13.8
Range:	3 - 20

2600 block 15th

Even face:

Total residential properties:	13
Total score:	167
Mean:	12.8
Median:	13.5
Range:	0 - 28.5

APPENDIX M
POLICE RESPONSE ZONES - 3RD PRECINCT



APPENDIX N

HOW TO INTERPRET THE CALL HISTORY DATA

Reading left to right, the columns are as follows:

- 1) The extreme left-hand column is this address's computerized record number.
- 2) The figures which appear in the space between the first full column and the second are the floor (on the left) and the apartment (on the right) that the call was placed from, if recorded.
- 3) The "Date" column is next, given as Year-Month-Day.
- 4) The "Time" column is next, in 24 hour or "military time". Those times greater than 1259 hours are P.M. times: Subtract 1200 from the number to obtain the P.M. equivalent.
- 5) The next column is the "Nature Code" of the call. This is a police shorthand for the type of activity the squad is dispatched to. (Listed below)
- 6) The six-digit number in the next column is the Case Control Number (CCN) for the incident. This is the Minneapolis Police Department's internal number for tracking the case. All police and arrest reports are filed under this number.
- 7) The 3-character column to the right of the CCN column is the "Disposition Code" column. This indicates the disposition of the incident, as called in by the squad officers. (Listed below)
- 8) Source indicates the source of the call.
- 9) The Unit is the squad number which responded to the call.

DISPOSITION CODES

● ADV	ADVISED	PEM	UNIT NOT SENT
AOK	ALL OKAY	RFD	REFUSED SERVICE
AQT	ALL QUIET	● RPR	REPRIMAND AND RELEASE
AST	ASSISTED	● RPT	REPORT MADE
● BKG	BOOKING (an arrest)	SCK	SICK PERSON
CNL	CANCEL (call canceled)	SEC	SECURED
● DTX	PARTY TO DETOX	● SNT	SENT ONE
FAL	FALSE ALARM	● TAG	CITATION ISSUED
FTC	FAIL TO CLEAR	TOW	VEHICLE TOWED
GOA	GONE ON ARRIVAL	TRN	TRANSPORTED ONE
INF	INFORMATION RECEIVED	UNF	COMPLAINT UNFOUNDED
INS	IN SERVICE		

NATURE CODES

ABITE	Animal Bite	● BURGBP	Burglary of business in progress
● ABURGB	Attempted burglary of business	● BURGD	Burglary of dwelling
● ABURGD	Attempted burglary of dwelling	● BURGDP	Burglary of dwelling in progress
ACHILD	Abandoned child	● CHASE	Vehicle chase
ALRMA	Alarm (audible)	CKHAX	Check for a hazard
ALRMAB	Alarm business	CKWEL	Check the welfare of a person
ALRMAR	Alarm residence	CRANK	Crank 911 caller
ALRMH	Alarm (hold - up)	● CSCM	Criminal sexual conduct (molester)
ALRMR	Alarm (recorded)	● CSCR	Criminal sexual conduct (rape)
ALRMS	Alarm (silent)	● CUSTRB	Customer trouble
AOA	Assist other agency	● DABUSE	Domestic abuse (family or household assault or threats)
● ASLT	Assault		
● ASLTP	Assault in progress	● DAMPRP	Damage to property
ASTDIS	Assist an invalid	● DIST	Disturbance (various types)
ASTOFF	Assist an officer	● DK	Drunk
ASUIC	Attempt suicide	DOA	Dead body
ATTPU	Attempt pick-up (usually a law enforcement request)	● DOMES	Domestic (family or household argument)
		● DOMESW	Domestic fight, with weapons
● AUTOTH	Auto theft	DOWN	Person down on ground, cause unknown
BABY	Baby not breathing	DROWN	Drowning
BOMB	Bomb (suspected)	EXPLOS	Explosion
BOMBT	Bomb threat	F ALRM	Fire alarm
● BOOK	Booking (police initiated arrest)	F BLDG	Fire in a building (assist fire department)
● BURGB	Burglary of business		

Continued...

NATURE CODES (continued)

● F GARR	Fire in a garage (assist fire department)	SLUMP	Person slumped over
F GRAS	Grass fire	SOB	Short of breath (medical)
F MISC	Miscellaneous fire	SPILL	Hazardous spill
F OTS	Fire outside	● STAB	Stabbing/cutting
F OUT	Fire outside	● SUSPP	Suspicious person
F SMKA	Fire smoke alarm	● SUSPV	Suspicious vehicle
F SMKO	Fire Smoke odor	● TENTRB	Tenant trouble
F SPAL	Fire sprinkler alarm	● THEFT	Theft
F VEH	Vehicle fire	● THEFTA	Theft from auto
FALRMC	Fire alarm from a company	THEFTH	Theft holding (shoplifting)
FC	Firecrackers	● THEFTP	Theft in progress
FCHILD	Found child	● THREAT	Threat made against person
● FIGHT	Fight	TLE	Traffic Law Enforcement (MV stop)
● FIGHTW	Fight with weapons	TOW	Vehicle towed
FORG	Forgery	TRANS	Transportation request
HEART	Heart attack	TRFCN	Traffic Control
HELP	Officer needs help	TRUANT	Truancy, juvenile
HOTROD	Hotrodder (vehicle disturbance)	UNCON	Unconscious person
● INDEX	Criminal sexual conduct (exposer)	UNKTRB	Unknown trouble
INFO	Receive information	UNSBIZ	Unsecured business
JUMPER	Bridge or building jumper (suicide attempt or threat)	● UNWANT	Unwanted person
● KIDNAP	Person kidnapped	WATEM	Water emergency
● KIDTRB	Kid trouble	WIREDN	Wires down
● LCHILD	Lost child	ZERO()	Zero tolerance zone
LKIN	Person locked in (vehicle or building)		
LKOUT	Person locked out (vehicle or building)		
MEDIC	Medical assistance needed		
MISC	Miscellaneous (doesn't fit other codes)		
● MORALS	Morals offense (usually prostitution)		
MPER	Missing person		
● MUSIC	Loud music disturbance		
MYSDIS	Mysterious disappearance		
● NARC	Narcotics call		
● NBRTBR	Neighbor trouble		
NOPAY	Non-paying customer (left scene)		
NOTIFY	Notification; deliver message		
NVA	Non-vehicular accident		
OB	Maternity run		
OD	Overdose		
ODOR	Noxious smell; combinations include GDOR -gas order ODORIN -odor inside		
● PARTY	Loud party causing a disturbance		
PD	Property damage accident (vehicle)		
PDHR	Hit & Run property damage (vehicle)		
● PERGUN	Person with a gun		
● PERWEA	Person with a weapon		
PI	Personal injury accident (vehicle)		
PIHR	Hit & Run personal injury accident (vehicle)		
● PKG	Parking problem		
● PKGBD	Parking problem, blocked drive		
PPI	Vehicle accident, possible injury		
● PROWL	Prowler		
RDHAZ	Road hazard		
RECPRP	Recovered property		
RECVEH	Recovered vehicle		
RETRRP	Retrieve personal property from former residence		
● RISK	High risk warrant served		
● ROBBIZ	Robbery of business		
● ROBBZP	Robbery of business in progress		
● ROBPER	Robbery of person		
SAFE	Problem address		
SEIZ	Seizure (medical)		
● SHOOT	Shooting victim		
● SHOTS	Sound of shots heard		
SICK	Sick person		