Predicting Housing Abandonment in Central: Creating an Early Warning System

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Introduction

According to the 1995 Central Neighborhood NRP Action Plan, one of the biggest challenges faced by Minneapolis' Central neighborhood is the problem of vacant and boarded residential structures. The plan states that "we must focus on the full life cycle of buildings, and interrupt the cycle of decline, not just focus on abandonment, which is the last step in the decline cycle."(1) Thus recognizing the need to be proactive in addressing this problem, the Central Neighborhood Improvement Association (CNIA) established the Boarded and Vacant Task Force as a subcommittee of their Housing Committee.

Wishing to take the lead to reverse the process of decline in the neighborhood, this Task Force commissioned a study of the residential vacant and boarded problem in Central neighborhood. The members of the Task Force recognize the potential value of such a study not only for Central neighborhood, but also for other high risk neighborhoods in the city of Minneapolis and elsewhere.

The purpose of this study is to identify indicators of housing abandonment in Central neighborhood and to create a model that can be used to predict problem properties before deterioration becomes too great. This information can then be used to develop action strategies to address such properties.

The following report outlines the processes employed in determining indicators of at-risk housing in Central neighborhood, and investigates the feasibility of creating an early warning system to aid in the prevention of housing abandonment in the neighborhood. The final product is a mappable database of the neighborhood's housing characteristics, including a risk index based on six variables found to be associated with at-risk housing.

Background

Central neighborhood is a 72 block area located in midtown south Minneapolis. Central is bounded by Lake Street on the north, Chicago Avenue on the east, 38th Street on the south, and Interstate 35W on the west. The neighborhoods directly adjacent to Central are Lyndale, Kingfield, Bryant, Powderhorn Park, and Phillips.

Central is one of the older neighborhoods in Minneapolis, having been annexed to the city in 1887. Most of the housing in Central was built before 1920 and consists of predominantly single family homes, with a mix of duplexes, 4-plexes and a few larger apartment buildings. There are approximately 1,700 residential buildings in the neighborhood containing about 2,800 housing units. (2)

Central neighborhood has experienced its share of problems associated with urban decline. As urban areas continue to expand outward, neighborhoods near the center city tend to experience a population loss as households move toward suburban areas and away from perceived inner-city decline. Change in population along with a significant shift from owner-occupancy to renter-occupancy in the neighborhood's housing are consistent with the experiences of other urban neighborhoods and have been found to factor heavily as some of the overarching causes of housing abandonment. (3)

Housing Abandonment in Central Neighborhood

The number of abandoned properties at any one time in Central varies. In 1995, Central Neighborhood Improvement Association identified 88 vacant and boarded properties in the neighborhood while the Minneapolis Department of Inspections had 55 buildings on its boarded building list. (4) As of February 1998, there were 52 boarded residential

structures in Central and more than 100 vacant lots (see map 1). It can be assumed that many of these lots were sites of boarded and vacant structures at some point, and that much of the new construction in the neighborhood has taken place on such sites. (5) Taking this into account brings the number of current and formerly boarded and vacant properties well above 250 (or 16% of the neighborhood's housing stock). This figure does not include those boarded and vacant structures that have been, or are in the process of being, rehabilitated. Clearly, the problem of boarded and vacant residential structures in Central neighborhood is quite serious. The neighborhood has lost, and is in danger of losing, a significant percentage of its housing stock to abandonment.

Abandoned and boarded housing, however, has a far more deleterious effect on an area than simply the loss of housing stock. Other costs to a neighborhood found to be associated with abandoned housing include:

- lower property values leading to the erosion of the property tax base
- maintenance costs (including general health and safety hazards) associated with securing vacant buildings
- demolition costs of properties that are beyond saving
- secondary impacts of depressed surrounding property values and property tax revenue
- the discouragement of private investment by surrounding property owners
- damage to the overall physical appearance of the neighborhood (6)

Clearly, it is to everyone's advantage to stop the cycle of abandonment and decay.

The Abandonment Process

Housing abandonment has been described as a complex process with three discernible stages: psychological abandonment, fiscal abandonment, and physical abandonment. (7)

Psychological abandonment has to do with how residents and non-residents *think* about the future of the neighborhood. For example, if a property owner believes that the area is in decline, he/she may be unwilling to make future investments in his/her property. A non-resident of the neighborhood may not bother to seek housing in the area if he/she perceives that the area is unsafe. "The abandonment is psychological in that it does not necessarily represent termination of investment, but of interest." (8)

Fiscal abandonment represents the next step in the process: an owner or landlord no longer supports his/her building financially. This may include the cessation of tax and utility payments, and expenditures for maintenance and improvements.

Physical abandonment is the final and most visible stage in the process and usually results from long term psychological and fiscal abandonment. This stage is represented by deteriorated and/or vacant and boarded buildings.

Predicting Abandonment

Once it is understood that housing abandonment is part of a larger process it becomes clear that the way to prevent abandonment is to take effective action early in the process. It is necessary to develop indicators, or danger signs, of properties that are at risk of physical abandonment. Since the psychological stage of abandonment is not easily quantifiable, it makes sense to focus on the second stage in the process, fiscal abandonment. Fiscal abandonment, or owner disinvestment, is not always the most obvious of the stages, but it is probably the most measurable and the most likely point at which successful intervention can occur. Indicators of fiscal abandonment formed the basis of a risk index for the entire neighborhood of Central.

Particular indicators for Central neighborhood were determined based on previous literature on housing abandonment, interviews with neighborhood residents (especially close neighbors of boarded and vacant properties), and case studies of currently boarded properties in the neighborhood.

Studies of housing abandonment in Cleveland, Akron, New York, Chicago, and Los Angeles have used risk indicators to determine areas within the city (neighborhoods or census tracts) that were most at risk of abandonment.

In 1990, a study conducted in Cleveland used a combination of eight variables to attempt to quantify a neighborhood's vulnerability to abandonment:

1. residential property tax delinquency
2. commercial delinquency
3. median single-family sales price
4. poverty rate
5. rate of high risk mortgages
6. arson rate
7. percent of residential housing units in poor condition (9)

An earlier study in Akron identified five variables to be used at the census tract level in an index of residential stability:

1. number of housing demolitions by tract as a proportion of total housing units
2. incidence of residential property vandalism by tract
3. average value of residential sales by tract
4. number of land contract sales by tract
5. average size of "down payment" by tract (10)

Other indicators discussed in this study were vacancy, unmaintained grounds, utility turnoffs, untraceable owner, and tax delinquency.

A 1993 study of abandonment in the private rental-housing market in New York City used three indicators of owner disinvestment:

1. serious property tax arrears
2. mortgage foreclosures
3. incidents of structural arson (11)

Another study in the 1970s in New York found that the strongest correlates of abandonment were property tax arrears, absentee ownership, and the number of housing code violations. (12)

More recently, the Center for Neighborhood Technology in Chicago has identified seven indicators in their Neighborhood Early Warning System (NEWS):

1. code violations
2. housing court cases
3. water arrears
4. current property tax delinquencies
5. severe property tax delinquencies
6. fire records
7. real estate sales, buyer and assessment information (13)

Los Angeles has developed a system based on the Chicago project which utilizes property tax delinquency, building code violations, and Department of Water and Power arrearages to track at-risk properties. (14)

In addition to these studies on housing abandonment, interviews were conducted with close neighbors of currently boarded properties in Central. Since they are living with housing abandonment, it seemed wise to elicit their input as to what they see as the general causes of abandonment in the neighborhood, as well as in particular situations on their individual blocks. The majority of the respondents identified absentee ownership, criminal activity, and poor building condition as precursors to abandonment. (15)

Measuring Risk in Central Neighborhood

The six risk indicators chosen for Central neighborhood were based on the literature cited above, the input received from neighborhood residents, the case studies of boarded properties in Central, and the availability of data for the neighborhood.

Several of the indicators cited in the literature did not seem appropriate for use in this study as they had more to do with determining areas (census tracts or neighborhoods) at risk of abandonment. Since Central is already identified as a high risk neighborhood (due to high incidence of property abandonment), it seemed more prudent to focus on indicators that have more to do with particular buildings. Though there are additional indicators that would be useful in this study (high risk mortgages--including contracts for

deed), it proved far too difficult, given time and resource constraints, to collect the relevant data. It was decided, then, to use the following risk indicators for Central neighborhood:

1. property tax delinquency
2. water arrears
3. poor building condition
4. non-owner occupancy
5. proximity to abandoned properties
6. proximity to areas of high crime

Once the risk indicators for the neighborhood were chosen, it was necessary to compile the relevant data for all of the approximately 1,700 residential parcels in Central. This proved to be quite a complicated and time consuming process.

The first step was to purchase a basic data set of building characteristics for the neighborhood. This information was obtained from Minneapolis City Assessor data through the Minneapolis Department of Public Works GIS Print Room. The data set included such information as address, number of units, estimated market value, lot size, construction date, number of bedrooms, type of construction materials, and square footage. (16)

The next step was to begin collecting data according to the six indicators chosen. Hennepin County property tax records were consulted in order to measure property tax delinquency. This information was not easily accessible as the data are not organized according to neighborhood, but according to PIDs (property identification numbers) for the entire city. The printouts contained the PID, address, owner and taxpayer information, years of tax delinquency notices sent, and the amount of taxes owed. It was necessary to identify those PIDs assigned to properties in Central neighborhood, photocopy the corresponding information, and then enter them one by one into the Central neighborhood database. Not only was this time consuming, but it left quite a bit of room for error. It would have been much more efficient if the data had been available electronically for input directly into the database.

Gathering data for water arrears was even more difficult. The Minneapolis Water Department uses a computer database that is also not easily accessible. The data are not sorted according to neighborhood, but according to water route. (17) Therefore, to obtain information for Central neighborhood, it was necessary to gain access to a Water Department computer, search ranges of street addresses, make printouts of the current and delinquent billings, and enter them one by one into the Central neighborhood database.

Obtaining current and accurate information on building condition was also quite difficult. The City Assessor provides a building condition code (1 through 9, from best to worst condition) for each property in the city and this information was provided in the initial data set purchased from the GIS print room. (18) However, the data are quite dated as

buildings are not assessed often enough to keep up with neighborhood changes. (19) Another way to measure building condition would be to gather data on code violations through the Minneapolis Department of Inspections. Inspections data, however, are not currently accessible according to neighborhood or according to incidence and location of violations. (20) In order to obtain this information for Central neighborhood, it would be necessary to search the Inspections database one address at a time, print out individual property information records, and then transfer the data to the Central neighborhood database. Perhaps the best indication of building condition would be an actual survey of the neighborhood applying either the same criteria as the City Assessor's office, or using other building condition survey methods. (21)This would provide a much more accurate assessment of conditions in Central, but would require substantial resources to accomplish. In the absence of an accurate property condition survey, it was decided to use the City Assessor's building condition code as a measure of building condition.

Homestead status was used as a measure of non-owner occupancy. This information was obtained electronically through Minneapolis City Planning (22) and merged with the Central neighborhood database. Though these data were fairly easy to access compared with the other variables used in this study, they also are not completely current. For instance, a previously rented property that has become owner-occupied may take a year to change homestead status for tax purposes.

The last two indicators of at-risk status have less to do with individual buildings and more to do with their geographic location within the neighborhood. According to recent studies of property values in Minneapolis and St. Paul, (23) proximity to abandoned properties has a deleterious effect on surrounding property values. This, and the fact that neighborhood residents express concern about abandoned properties attracting criminal activity, suggests that this factor, along with proximity to areas of high crime, is important in determining risk status for buildings in the neighborhood. Data concerning these two indicators were gathered using a neighborhood map showing current boarded properties (see map 1), and crime report maps obtained from the Minneapolis Police Department Community Crime Prevention office. (24)

When the relevant data for all six indicators had been collected and compiled into a single database for the neighborhood, an index was created to evaluate each building according to its level of risk. The risk index was determined as follows:

Tax delinquency. If a property had received one or two tax delinquency notices since 1990, it received a tax score of 1. If it received 3 or more, it received a tax score of 2.

Water arrears. If a building had a delinquent water bill under $600, it received a water score of 0. If the bill was $600-$1,000, it received a water score of 2. If it was over $1,000 (25), it received a score of 4. This indicator was weighted twice as heavily as the others to reflect the importance of this factor in predicting abandonment. (26)

Building condition. If, according to the City Assessor's building condition code, a property was rated 1-5, it received a score of 0. A condition code of 6, earned a score of 1, while a code of 7-9 received a score of 2. (27)

Non-owner occupancy. If a property was homesteaded in 1997, it received a score of 0. If it was not homesteaded, it received a score of 2. (28)

Proximity to abandoned properties. Using a map of currently boarded properties in Central (map 1), each block in the neighborhood was rated as to how many boarded properties were on the block. Blocks were defined as *block faces* (rows of houses sharing the same street). If a property was located on a block with no boarded buildings, it received a score of 0. If the block had one boarded building, each property on that block received a score of 1. If the block had two or more boarded buildings, each property on that block received a score of 2.

Proximity to areas of high crime. A map of Central detailing locations of reported crimes in 1997 was used to rate each block according to the numbers of crimes reported for that block. If a block had under five reported crimes in 1997, it received a score of 0. If a block had between six and ten, it received a score of 1. Any block with over ten reported crimes in 1997 received a score of 2.

When the analysis was completed, each building in Central neighborhood emerged with a "risk score" based on the sum of the scores of all of its six indicators. The scores ranged from 1 to 14, with the higher numbers indicating higher risk. The properties were then grouped into three risk categories, based on their risk score. Any property that scored 3 risk points or less was not considered to be at significant risk for abandonment. Properties that scored between 4 and 6, were considered to be at a moderate risk level. Scores of 7 or 8 were considered to be high risk, and the severe risk category is represented by risk scores of more than 9. (29)

The Central neighborhood database, including the newly formulated risk index, was then transformed into a map showing all the properties in Central according to their level of risk (see map 2). In order to convert Central data into a mappable format, a base map of Central neighborhood land parcels in electronic format was purchased from the GIS Print Room and converted for use with the Central neighborhood database. (30) This was very time consuming, but the result is a GIS that will allow for continual analysis as neighborhood conditions change.

The final map shows the currently boarded properties in red, the current vacant lots in green, and the non-residential areas of the neighborhood in yellow. The rest of the properties are one of three shades of blue (the darker the color, the higher the risk score) or white, indicating very low or no risk score. (31)

According to the map (and the associated database) there are currently 22 severe risk, 150 high risk, and 388 moderate risk properties in Central. Though the high and severe risk properties seem to be dispersed throughout the neighborhood, there does seem to be a

concentration in certain areas. The east side of the 3500 block of 4th Avenue, the 3600 block of Columbus Avenue, the 3000 blocks of both Park Avenue and Clinton Avenue, and the 3300 block of Clinton Avenue appear to be very high risk blocks.

Limitations of the Study

It should be kept in mind when interpreting this map, that the Central neighborhood database in its current state has limitations. The data for this project were collected over a period of months and compiled into a database that represents the state of the neighborhood at one point in time, a "snapshot" of current conditions. Though useful as a diagnostic and planning tool, it will require continual maintenance if it is to continue to be so.

Another word of caution bears mention here. A high risk score does not *guarantee* abandonment. On the other hand, a property showing no signs of risk according to this index, is not necessarily *safe* from abandonment. There are many factors that contribute to property abandonment and some of these will not be quantifiable in *any* database or risk index. The index, and resulting database and map, is merely a tool to enable early intervention where properties are exhibiting early warning signs of abandonment.

Recommendations

Several recommendations for Central Neighborhood Improvement Association (CNIA) emerged from this study of Central neighborhood:

1. Continue to maintain and update the current Central neighborhood database. The map and database, having been created with desktop GIS software, will allow for immediate up-dating and analysis as conditions change in the neighborhood. It will, however, require continual maintenance, as even one change on a block (the demolition of a boarded house, for instance) could result in an adjustment of the risk scores for the entire block. During the writing of this report at least three demolitions took place, one formerly boarded building's rehabilitation was completed, and one at-risk building became boarded, requiring a new set of maps to be created with adjusted risk status. It seems imperative, then, for time and energy to remain devoted to the maintenance (and possibly the expansion) of the Central database as it could prove to be a very useful tool not only in the prediction of property abandonment, but also in the monitoring of other facets of neighborhood change.
2. Develop action strategies for dealing with at-risk properties. Now that there is a system in place for the purpose of identifying properties before abandonment occurs, CNIA should dedicate resources to developing strategies for dealing with at-risk properties. This would include prioritizing which properties should be dealt with first. For instance, will it make more sense to immediately focus

resources on the highest risk properties, or concentrate on those properties that are not in quite as much danger of abandonment?

3. Further investigate individual situations of at-risk properties. As part of any action strategy it will be necessary to recognize the need for sensitivity in dealing with property owners who may be facing very difficult personal situations. Several properties in Central may be exhibiting signs of high risk status simply because a property owner does not have the resources available for improvements, or the experience or expertise to recognize potential maintenance problems. This situation should be handled differently than a situation in which an absentee owner may be deferring maintenance (and other housing costs) in order to increase his/her cash flow.
4. Continue to work toward the development of strong block clubs. Block club members could be trained to recognize warning signs of a property in trouble, long before any of the six "official" indicators are visible in any way. Neighbors who know what is happening on their block are invaluable participants in any effort to combat property abandonment. As part of an organizing effort, perhaps an active and strong block club could "adopt" an at-risk block.
5. Publicize the positive aspects of the neighborhood. Disseminating information about rising property values and housing projects currently underway could help promote a positive sense of the neighborhood's future, thereby combating "psychological abandonment".

Much of the data compiled for this project was extremely difficult to access and integrate into a system useful for neighborhood analysis (see table 1). Further recommendations emerging from this study of Central neighborhood are related to data access:

1. The City of Minneapolis should investigate the feasibility of an integrated data access system among city and county departments. Several of the city (and county) departments have incompatible computer systems and inefficient means of making data available, not only to the public, but to other departments as well. The Water Department, for example, has frequently fielded phone calls from the Inspections Department requesting information on a particular property's delinquent water bills. (32) It would seem to make more sense to have an integrated system allowing various departments to access needed information more easily.
2. The City of Minneapolis should make housing data (including data on the indicators used in this study) easily accessible and available to neighborhood groups. The inability to access data on an area or neighborhood basis presents quite an obstacle to neighborhood analysis. It would be much more helpful to be able to access data according to area or indicator. For instance, rather than searching address by address through the Water Department's database to find buildings with excess water balances, one could ask for a report of water balances in Central neighborhood that are in excess of $1,000.00. It should be possible to develop an ongoing reporting system that will allow Central (and other neighborhoods) to track at-risk properties according to these indicators.

3. The City of Minneapolis should study the Chicago NEWS, and the L.A. NEWS systems for possible adoption in Minneapolis. In Chicago, the Center for Neighborhood Technology's NEWS (Neighborhood Early Warning System) database combines data sets from several city and county agencies into a single database which is accessible to the public through the World Wide Web. (33) The Los Angeles NEWS database (34) is based on the Chicago model and is also publicly available. These two examples of integrated database systems should be investigated further and possibly used as a model for a similar system in Minneapolis.

Table 1: Obstacles to data access

INDICATOR	MEASURED BY	SOURCE	OBSTACLES/PROBLEMS
property tax arrears	no. of tax delinquency notices sent	Hennepin County Property Tax Office	not available electronically; not available by neighborhood; no system in place for ongoing reporting
water arrears	delinquent water bills	Minneapolis Water Dept.	not available electronically; not available by neighborhood; no system in place for ongoing reporting
building condition	City Assessor's building condition code	Mpls. City Assessor Info	condition not assessed often enough to be accurate
non-owner occupancy	homestead status	Hennepin County Property Tax Info	not current
proximity to abandoned houses	no. of abandoned properties per block	neighborhood map of current boarded	
proximity to areas of high crime	no. of reported crimes per block	Police Dept. CCP maps of reported crimes	maps no geographically accurate
INDICATORS NOT USED			
building condition as measured by:	code violations	Mpls. Dept. of Inspections	data not available by neighborhood or by incidence and location of violations
high risk	contract for deed	Hennepin County	only available on individual

mortgages		Abstractrs/Torrens Office	property by property basis; not available electronically; not available nbhd.

Conclusion

For Central neighborhood, as for several other inner-city neighborhoods in Minneapolis, the problem of boarded and vacant housing is quite serious. Not only do these neighborhoods face the threat of the loss of housing stock, but they must also contend with a whole host of problems associated with abandoned properties.

Citizen participation organizations, such as Central Neighborhood Improvement Association (CNIA), are in an excellent position to intervene in the abandonment process, thereby reducing the numbers of boarded structures and improving overall housing conditions in their neighborhoods.

By improving public access to relevant housing data, including the risk indicators presented here, the City of Minneapolis, will contribute significantly to the citizen participation component of neighborhood revitalization. The predictive model presented in this study is intended to aid in these revitalization efforts.

Notes

(1) Central Neighborhood Improvement Association, *Central Neighborhood Action Plan*, October, 1995, 46.
(2) U.S. Bureau of the Census, *Central Neighborhood User Defined Area Data*.
(3) Frank J. Costa and Edward W. Hanten, *Creating an Early Detection System for Housing Abandonment in Akron, Ohio* (Akron: Center for Urban Studies, The University of Akron, 1988) 2.
(4) Central Neighborhood Improvement Association, 49.
(5) According to Minneapolis Planning Department Data, there have been 113 residential structures built in Central neighborhood since 1980.
(6) Ed Goetz, et al. *The Fiscal Impacts of the St. Paul Houses to Homes Program* (Minneapolis: Center for Urban and Regional Affairs, University of Minnesota,1997) 12-15.
(7) Costa and Hanten.
(8) Costa and Hanten, p. 19.
(9) Mark C. Hoffman, *Abandonment of Cleveland's Housing Stock and Potential for Redevelopment of Vacant Land* (Cleveland: Maxine Goodman Levin College of Urban Affairs, Cleveland State University, 1990)
(10) Costa and Hanten, p. 89.
(11) Victor Bach and Sherece Y. West, *Housing on the Block: Disinvestment and Abandonment Risks in New York City Neighborhoods* (New York: Community Service

Society of New York, 1993)
(12) See Bach and West, p. 111.
(13) See the NEWS web site at http://www.cnt.org
(14) See the *Neighborhood Knowledge Los Angeles* web site at http://nkla.sppsr.ucla.edu/
(15) 42 interviews conducted, June-September 1997.
(16) For a complete listing of building characteristics included in the Central database, see appendix 1.
(17) The Water Department is currently investigating a new database system which may help facilitate data access.
(18) For a description of Minneapolis City Assessors' building condition codes, see appendix 3.
(19) Minneapolis properties are assessed approximately every four years.
(20) The Department of Inspections in currently testing a new database system which may help facilitate data access.
(21) For an example of a housing condition survey, see Linda McCarthy, <>Neighborhood Housing Condition Survey Methodology (Minneapolis: Center For Urban and Regional Affairs, University of Minnesota,1996)
(22) Thanks to Monique MacKenzie, Minneapolis City Planning. This information is also directly available through Hennepin County Tax Office.
(23) Ed Goetz, et al. *The Fiscal Impacts of the St. Paul Houses to Homes Program* (Minneapolis: Center for Urban and Regional Affairs, University of Minnesota,1997) and Ed Goetz, et al. There Goes the Neighborhood? The Impact of Subsidized Multi-family Housing on Urban Neighborhoods (Minneapolis: Center for Urban and Regional Affairs, University of Minnesota, 1996)
(24) Thanks to Jan Roessler of CCP-SAFE.
(25) These figures are based on reasonable monthly water billings for 1 and 2 unit buildings. For multi-unit buildings, water delinquency amounts could be divided by the number of units (a 10 unit building will have a much higher monthly bill than a 2 unit building). In any case, a delinquent bill over $1,000 indicates a potential problem.
(26) According to interviews with neighborhood residents, professionals and city officials, as well as case studies of currently boarded properties in Central, delinquent water bills are strongly linked to abandonment. The effect of unpaid water bills is much more immediate than, say, delinquent property tax payments.
(27) See appendix 3 for an explanation of building condition codes.
(28) Properties that were *partially* homesteaded (owner occupied duplex, for example) were considered to be homesteaded.
(29) For a sample of risk scores, see appendix 2.
(30) The data were received in a DXF format and converted to a MapInfo file. This entailed several hours of work as each land parcel had to be redrawn (from line segments into polygons) to create a usable map.
(31) For examples of maps showing individual risk indicators, see appendix 4.
(32) According to an interview with Utilities Billing office staff, 10/97.
(33) See the NEWS web site at http://www.cnt.org/news.html
(34)See the *Neighborhood Knowledge Los Angeles* web site at http://nkla.sppsr.ucla.edu

Appendix 1

Building characteristics from Minneapolis City Assessor used in the Central neighborhood database:

- no. of units
- zoning
- no. of bedrooms
- no. of stories
- gross building area
- construction type
- building condition
- roof type
- roof cover
- construction date
- use code
- land area
- type of heat
- date of last sale
- price of last sale
- market value

Appendix 2

Risk scores of Central Neighborhood's "severe risk" properties

Address	Cond score	Tax Score	Water Score	Home-stead score	Prox score	Crime score	RISK SCORE
3525 4TH AV S	1	3	4	2	1	2	12
3309 CLINTON AV S	2		4	2	1	2	11
3304 CLINTON AV S	1	1	4	2	1	2	11
3333 CLINTON AV S	1	1	4	2	1	2	11
3201 CLINTON AV S	2	1	4	2	1	1	11
3608-10 PARK AV S	2		4	2	1	2	11
3632 COLUMBUS AV S	1		4	2	1	2	10
3444-46 OAKLAND AV S	1		4	2	1	2	10
3649 PARK AV S	1		4	2	1	2	10
3732 5TH AV S	2		4	2		2	10
3313 3RD AV S	2		4	2	1		9

3205 CLINTON AV S		1	4	2	1	1	9
3025 CLINTON AV S	2		2	2	1	2	9
310 E 31ST ST	2	1		2	2	2	9
2316 5TH AV S	2	1	2	2	1	1	9
3636 PARK AV S			4	2	1	2	9
3346 OAKLAND AV S	1		4	2	1	1	9
3341 PARK AV S	1		4	2		2	9
3212 PARK AV S	1		4	2	1	1	9
3520 CLINTON AV S	2	2	2	2		1	9
3537-39 4TH AV S			4	2	1	2	9
3440 5TH AV S	1		4	2		2	9