

## **Shrinking-City Urban Form as a Determinant of Urban Policy: the case of Flint, Michigan, USA**

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### **Introduction**

In many nations around the world, cities are “shrinking” (Oswalt 2005) or losing population and building stock. While there are many reasons for such ‘urban shrinkage’, including natural disasters, warfare, and environmental change (Vale and Campanella 2005), by far the most prevalent cause of such losses is deindustrialization, or the shift from a manufacturing-based economy focusing on production to a service-based economy focusing on service provision. Such transitions began in the United States and United Kingdom as early as the 1960s (Bennett and Bluestone 1982). Deindustrialization’s dominant role can be seen in the geographical patterns of shrinkage (Oswalt and Reinerts 2006): the highest numbers of shrinking cities are found in formerly industrial areas of North America and Europe, particularly the American ‘rust belt’ of the upper Midwest and the industrial belts of the United Kingdom and Germany.

Such economic shifts, while dominant, cannot be dissociated from social, political, technological, or other forces. In the United States, scholars have argued that racism and ‘white flight’ also played a role in urban population losses (e.g. Sugrue 1996, Gamm 1999), while in Eastern Europe and the former Soviet Union, substantial political changes, including the reunification of Germany and the shifting of populations between former Soviet states, operated in tandem with deindustrialization to drive population losses and housing abandonment in certain cities (e.g. Shrinking Cities Project 2004). Elsewhere, as in the United Kingdom, urban population losses may have been driven more by technological change that permitted suburbanization and decentralization of the city (e.g. Peach 2000).

In tandem with the dominant deindustrialization model of urban shrinkage, scholars of political economy and planning have argued for a more or less unified model of political and policy response to urban problems and revitalization in the developed world. Central to this literature is the work of political scientist Susan Fainstein. In a series of works (1983, 1991, 1999) Fainstein and her colleagues argued that a neoliberal politico-economic structure called the “urban regime” drove redevelopment decisionmaking after the state-driven planning model declined in the 1970s and 1980s. This theory, first put forward in the 1980s, has maintained such traction that Altshuler and Luberoff could account for no other in their study of contemporary development politics (2003). Other scholars have made similar arguments (Logan and Molotch 1987, Stone 1989, Frieden and Sagalyn 1989).

Evidence from shrinking cities seems to reinforce urban regime theory. In Detroit and Philadelphia, political regimes operating in partnerships with developers or corporations motivated and often partially financed redevelopments from the 1970s onward (Thomas 1997, Ryan 2012a). The redevelopment policies of these shrinking-city urban regimes are analogous to the 1980s and '90s redevelopment politics of New York and London examined by Fainstein (1999). In all cases, the state retreated after the 1970s to permit an enlarged role of private-sector decisionmaking. Expanding beyond the Anglo-American sphere, other scholars (e.g. Sassen 2001) have argued for a parallel 'diminution of the state' across the world as a result of globalization and the expanded role of capital. This argument, albeit with many qualifications, is tantamount to a global theory of urban political economy and its appeal to scholars of urban theory has been correspondingly great.

A somewhat unusual lacuna in the literature on urban redevelopment and urban policy is the built environment itself. In political economy literature, the built environment is perceived as being relatively neutral, a canvas upon which play much larger and more powerful socioeconomic forces. Rae (2003) is one of the few political scientists to have accorded the built environment a formative role in urban politics. Other studies, such as the previously cited study of London and New York (Fainstein 1999), explain much about the forces developing built environments like New York's Battery Park City and London's Canary Wharf, but do not accord the built environment itself, nor the designers of that environment, a causative role. In globalization studies the built environment is even more absent, leading one to conclude that it is not a factor in driving global change, merely the passive consequence of politico-economic forces. And indeed the built environments examined by Fainstein (1999) do look very similar (the largest buildings in both were designed by the architect Cesar Pelli), lending this 'dependency theory' of the built environment some credibility. Other studies focused on the built environments of globalization have also argued, often in polemical fashion, that global architecture is more or less homogenous (e.g. Bouman et. al. 2007).

In previous work I have argued somewhat differently. In both Philadelphia and Detroit's redevelopment of the past 20 years, I found that these cities' built environments, while not forming the political institutions nor the economic forces that drove redevelopment, did drive the physical components of redevelopment strategies, even if the policymakers and developers involved were not totally aware of the built environment's determinative role. In Detroit, a relatively low-density landscape of wooden houses permitted policymakers' and developers' substantial transformation of disinvested neighborhoods into automobile-dependent enclaves modeled after the suburbs (Ryan 2012a, 95-108). Philadelphia's much higher density cityscape

of attached rowhouses restricted the scale and scope of redevelopment and obliged policymakers to pay at least a modicum of attention to the historic context despite their avowed lack of desire to do so (Ryan 2012a, 76-79).

While one might argue that the historic built environment existing at the time of a particular redevelopment process is itself the product of past political, social, and economic forces, it is also undeniable that any built environment will attain a certain autonomy from these processes over time. Long after the economic and political, and even technical processes that produce a built environment are gone, the environment itself remains to influence decisions in the present. In the case of the heritage city this is broadly admitted. Few urban policymakers in Venice, for example, could or would even consider trying to escape the influence of that city's idiosyncratic, automobile-free built environment. But the same is also true for much newer cities. Whatever the political economy driving development in New York today, for example, the Manhattan grid platted in 1812 and developed ceaselessly since then is an inescapable determinant for even the largest building, as Koolhaas (1978) acknowledged. This deterministic role of the built environment led Rossi (1982) to argue that "the architecture of the [historic] city" should be a dominant influence in the design of contemporary structures.

In this paper I make a somewhat more moderate argument that nonetheless reinforces the deterministic argument of the [historic] built environment in shaping redevelopment decisions in today's shrinking cities. Using the shrinking city of Flint, Michigan, USA, as a case, I examine the block and parcel patterns, architectural form, development history, and property ownership of a mixed industrial-residential neighborhood in the city. I then show their influence in determining the planning and policy decisions of the post-2000 era, an era of significant closure and abandonment of both industrial and residential properties in Flint. I argue that Flint's development pattern of very large industrial and very small residential properties, generated in the early 20C and privately owned for most of their history, presents particular and significant challenges to planner and policymakers confronting abandonment in the city today. Flint's built environment pattern is proposed as the first case in a projected larger comparative study of different built environments and their relationship to redevelopment policy in shrinking cities in different countries.

### **The Case of Flint, Michigan**

Flint, located in the south-central part of the Midwestern state of Michigan (see Figure 1), is well-known as the city where General Motors (GM), for decades the largest corporation in the world, was founded in 1908. GM's rapid growth was paralleled by the equally rapid growth of

the city and for the next sixty years Flint enjoyed a period of great prosperity. In the 1950s it was the second largest city in the state of Michigan and as late as 1978 General Motors employed 76,900 people in the city and surrounding Genesee County (Highsmith 2009a, 597). This sunny scene began to change in the early 1970s when GM experienced its first employment shock following the 1973 oil embargo. Over twenty thousand GM workers were laid off in 1974-75 (Highsmith 2009a, 594-95) and though most were later rehired, the layoffs marked the world's largest company's entry into a second, painful phase of existence- a decades-long restructuring and shrinkage period from which it had not emerged by the time of writing (2012) and likely never would.

The story of General Motors' divestment from Flint post-1980 was well-chronicled on the local level on a somewhat uncritical basis by the *Flint Journal*, the local newspaper of record, and for a briefer period of time in the late 1970s and early 1980s by the *Michigan Voice*, a 'statewide alternative newspaper' (Library of Congress 2012) that was harshly critical of the company. The *Voice's* one-time staffwriter Michael Moore later became nationally famous for his documentary *Roger & Me* (1989), which treated GM's divestment and Flint's ensuing social problems as a sort of black comedy. But GM's divestment did not end with Moore's documentary. As the company's automobile sales declined in the 1990s and 2000s, GM continued to reorganize and relocate plants as a means of lowering costs and maintaining profits.

Two plant closures during the 1990s particularly impacted Flint neighborhoods. In 1990 GM began closing buildings at its "Chevy in the Hole" complex due west of downtown (see Figure 2). Most structures in the complex were demolished in the late 1990s, and in 2004 the last employees were moved off the site (Longley 2011a). The demolition of this complex left a huge blank spot on the map directly adjacent to the heart of the city. Even worse, a severely misguided economic development effort led by a former Mayor led a publicly controlled development corporation to purchase the site for \$1 from a GM subsidiary in 2008. With environmental cleanup costs, responsibility, and development potential uncertain, the corporation transferred the negative-worth site to the city in 2011. The city now plans to convert the former factory site into a "low-maintenance green space" (Longley 2011b). Little remains to indicate the site's former use.

Even more dramatic was the closure of "Buick City", a major manufacturing plant on the city's near North Side, in 1999 (Highsmith 2009a, 626-27)(see Figure 2). Even more than Chevy in the Hole, Buick City was intimately tied to the Flint's identity. In a sense Buick had *built* Flint; the company was founded in 1904 when the population of the city was only around 20,000. Even worse was the fact that the factory's closure was not due to obsolescence: GM had expensively

renovated the facility in the mid-1980s (Highsmith 2009a, 626). Rather, the plant's closure indicated ongoing and chronic structural problems at GM. When Buick departed, it left its founding site, and the neighborhoods that surrounded it, behind. In this case the city did avoid assuming ownership of the site: after GM declared bankruptcy in 2008, a nonprofit trust assumed ownership, remediation, and marketing responsibilities for the former Buick City (Fonger 2011a, RACER 2012). But marketing the site would be a challenge: even a GM-sponsored industrial park adjacent to the site, created in the 1970s for suppliers to locate near Buick City (Highsmith 2009b), remained mostly vacant.

In 2012, Flint, its population barely above 100,000 (Longley 2012), was extremely uncertain about its future. Apart from a record high unemployment level, the city was confronting not only near bankruptcy but an ongoing wave of housing abandonment. The 2010 national census indicated that Flint had about 10,000 vacant housing units (Harris 2012). In a city that had only 55,000 housing units in 2000 (Dewar 2009, 26), this was a recipe for crisis.

### **Flint: Growth and Decline in a mixed neighborhood**

A study of the pattern of growth and decline in a mixed residential-industrial neighborhood in Flint (see Figures 2 and 3) shows a gradual, piecemeal pattern of residential development of the early twentieth century, and a parallel piecemeal abandonment in the late twentieth and early twenty-first. In contrast, the industrial area developed as a single large parcel, operating throughout the twentieth century until it closed abruptly in 1999. While not necessarily representative of the entire city, the site's history of growth and decline, as well as the policy processes that have impacted the neighborhood in the last ten years, do provide an indication of how Flint's dual residential-industrial built environment is shaping shrinkage policy today.

The neighborhood examined can be called "North Oak Park", as it borders a neighborhood to the south known as Oak Park. North Oak Park is approximately half residential and half industrial (see Figure 3). The neighborhood's western half is a mostly residential area bounded by Saginaw, Stewart, Industrial, and Leith Streets, and its eastern half is an industrial area, the northernmost portion of Buick City, that is bounded by Industrial, Stewart, and Leith Streets, and a freight railroad spur.

Four different data sources were used to examine North Oak Park's development and abandonment. Sanborn maps, generated by a fire insurance company that mapped almost every American city of any size during the late 19C and early to mid 20C, are an invaluable resource for understanding historic urban development in the United States. Sanborn maps for

the North Oak Park in the the years 1909, 1914, 1928, and 1950 were available via a library digital subscription. Digital aerial photos, available via a Google Earth Pro library subscription, were available for North Oak Park for the years 1999 and 2011 and showed the structures remaining at those times. A full geographic information system for the city of Flint was not yet available at the time of writing, preventing confirmation of aerial photograph information. Demolition data for years 2004 to 2011 were kindly provided by the city, and parcel addresses owned by the Genesee County Land Bank were available from the Land Bank's internet database. These four data sources enabled a comprehensive, if not universal, portrait of how North Oak Park's built environment meshed with the city's policy environment in the city's age of shrinkage.

### North Oak Park: the geography of growth and decline

Patterns of growth and decline in the residential and industrial portions of the neighborhood roughly paralleled each other, but also exhibited substantial differenced due to their different development patterns. Table 1 below shows occupied parcels/total parcels in 8 sample residential blocks in North Oak Park: four at the neighborhood's southern end and four at its northern end. Street names may be keyed to Figure 3.

Table 1.

N Street	E Street	S Street	W Street	1909,1914	1950	1999	2011
4 southernmost blocks							
McCle	North	Leith	Sagin	0, 21 / 35	35 / 35	19 / 35	14 / 35
McCle	Indus	Leith	North	3, 20 / 38	36 / 38	3 / 35	1 / 35
Jamie	North	McCle	Sagin	0, 14 / 35	33 / 35	19 / 35	10 / 35
Jamie	Indus	McCle	North	1, 21 / 38	37 / 40	22 / 40	18 / 40
4 northernmost blocks							
Moore	North	Damon	Sagin	- , -	28 / 34	21 / 34	16 / 34
Moore	Indus	Damon	North	- , -	29 / 33	24 / 33	19 / 33
Stewa	North	Moore	Sagin	- , -	20 / 28	23 / 28	18 / 28
Stewa	Indus	Moore	North	- , -	33 / 34	25 / 34	22 / 34

While this table is relatively abstract, Sanborn maps (Figure 4) from each era make the meaning of these figures clearer. In 1909, development of North Oak Park had just begun. Only a few houses occupied the blocks closest to the future Buick City, indicating perhaps that developers wished to be as close as possible to the growing Buick Company, which had been in existence for about 5 years in 1909. Subsequent growth was extremely rapid: the four southernmost blocks in the neighborhood were approximately half developed by 1914, only five

years later, indicating a rapid northward expansion of the city. However, the four northernmost blocks in North Oak Park had not yet been surveyed in 1914, indicating that development was progressing in a relatively compact manner northward.

By 1950, an extremely prosperous time for Flint, most blocks in North Oak Park's residential area were essentially fully built out. The four southernmost blocks had only seven empty parcels between them, and the northernmost blocks had between 1 and 8 empty parcels each. Whether these empty parcels were due to housing demolitions or whether they had remained empty since the neighborhood's development could not be determined with available information. 1950 was the peak of North Oak Park's residential development.

By 1999, Flint had been losing population for almost 30 years, and the effects in the neighborhood were clear: seven of the eight blocks in Table 1 had lost housing since 1950, some dramatically so. Aerial photographs (Figures 5 and 6) show that these vacancy patterns were for the most part scattered within blocks, except for one southern block that was almost completely vacant for unknown reasons. North Oak Park's scattered vacancy pattern is consistent with the documented experience of other shrinking cities like Buffalo (Ryan et. al. 2010) losing population on an incremental, piecemeal basis as individual homeowners decide to abandon their houses. 2011's vacancies are consistent with this trend. Between 1999 and 2011, all blocks experienced a continued diminution in building stock, with 2 to 9 additional properties becoming vacant on each block. This residential development and abandonment pattern seemed typical of Flint in so far as vacancy patterns could be assessed in field visits to other parts of the city.

Both the development and abandonment of Flint's neighborhoods were the result of a small-scale building process that generated both small parcels and small buildings in what urban historian Sam Bass Warner (1962) called "a weave of small patterns". Presumably, as Warner documented in Boston and as other historians have documented in other American cities (Nicolaidis 2002), Flint's land was owned by an initial developer who subdivided the land and then sold parcels in small quantities to local builders to construct houses as they pleased. Indeed, different areas of North Oak Park's residential blocks are referred to in the 1914 Sanborn and subsequent years as "Parkland", "Parkland #2", "Stewart's Plat", and "Stewart's Plat #2", hinting that clusters of city blocks were being platted and then subdivided by different landowners in rapid succession (recall that houses were appearing rapidly between 1909 and 1914).

Flint's weave of small patterns generated a landscape of modest houses throughout the twentieth century. This landscape began to vanish in the late twentieth and early twenty-first as the modest houses were abandoned and then demolished. Such semi-abandoned, mostly residential neighborhoods (In 1950 and to a lesser extent today, North Oak Park had several small commercial and industrial facilities amidst its residential blocks, including (in 1950) two small cinemas!) constitutes one of the major policy problems that confronting planners today. Why this is the case will become clear when we review recent policy actions in North Oak Park.

Let us now examine the parallel development and abandonment (or closure) of the industrial land directly to the east of North Oak Park. This land was owned by General Motors as early as 1914; Sanborn Maps from that year show the entire block south of Conover Street as the "General Motors Company", and also show a residential subdivision called "Buick Park" on the blocks north of this property, indicating that the company intended them for residential development (the area in question was in fact partially residential in 1950, but was entirely industrial by 1999). By 1928, maps show the entire industrial area as the "Buick Motor Company", and otherwise surrounded by residential parcels. Buick City had come into being. Between 1914 and 1999, industrial buildings came and went on this parcel with some frequency. Buick City's steady internal rebuilding is consistent with that occurring on automobile plants in Detroit (Ryan and Campo 2012), and likely reflected the same shifts in technology, production methods, and production lines, that drove this change in Detroit. Additionally, in the mid-1980s, as previously mentioned, General Motors completely rebuilt Buick City, removing most of the older buildings on the site.

In 1999, the rebuilt Buick City was intact and apparently functioning even though the residential neighborhood adjoining it was already experiencing piecemeal abandonment. The plant closed that same year, making its fate uncertain. But by 2011, following General Motors' bankruptcy and reorganization, the plant was vanishing. Aerial photographs show the plant midway through demolition: buildings on the southern portion of the site are already half-gone. Field visits in mid-2012 found demolition complete. Not a building was standing on the former Buick City site.

### **Planning policy in shrinking neighborhoods: two policies for two built environments**

On an industrial site such as Buick City, the role of public policy was relatively minimal throughout most of the site's hundred-plus year history. Buick City was purchased by private enterprise, developed and operated by private enterprise, expanded and redeveloped by private enterprise, and (partially) demolished by private enterprise. But the remaining demolition



and remediation became the responsibility of the public sector (EPA 2010) due to General Motors' 2008 bankruptcy, which placed the company in majority public ownership for two years and transferred cleanup responsibilities of former factory sites as well. In 2012 the nonprofit RACER trust estimated remediation costs to be \$33 million (RACER 2012). This process that was ongoing at the time of writing.

The public sector's next responsibility would be the return of the Buick City site to the private sector. Ideally future development would take the form of, as Flint Mayor Dayne Walling stated, an "essentially industrial" use such as an intermodal terminal or new manufacturing facility (Rasher 2012). No development deal had yet been confirmed by the time of writing, but in all likelihood, if manufacturing or the like were to return to Buick City, it would do so in the same form as it had on similar post-automotive sites in Detroit (Ryan and Campo 2012); as low-density, relatively small-scale buildings with minimal visual presence. In its next life, Buick City might be subdivided at last, but the site would probably also be an essentially suburban one, similar to the lower-density future of the rest of the city.

Like most industrial sites not directly owned by the public sector, the reuse of Buick City was a problem relatively distant from city-level policy and planning. The city did not own the land, so the parcel's cleanup was therefore a private-sector and subsequently federal responsibility (GM's bankruptcy was negotiated at the federal level). In other plant closure cases where the owner remains solvent, responsibility for cleanup and remediation remains with the company, meaning that city involvement is also minimal in those cases (Higgenbotham 2012, pers. comm.) Redeveloping Buick City was a pressing issue for Flint, but it was not one in which the city could play a major role beyond simply promoting the city's enthusiasm for reuse.

The abandoned properties of residential Flint presented an equally pressing challenge to public policy and required substantially more public involvement. This was so for a variety of reasons. Unlike an easily secured industrial site, Flint's piecemeal abandoned residential properties were accessible to weather and vandals, making them vulnerabl to weathering and deterioration. In addition, they were directly adjacent to inhabited properties inhabited by Flint residents- and voters, and therefore a major determinant of neighborhood quality of life. Confrontation of residential abandonment was therefore a top public priority, especially as arson raged among Flint's abandoned houses (Harris 2012).

Public policy had two major roles to play in confronting abandonment in Flint. The first was demolition: the city was obliged, for health and safety reasons above all, to remove vacant and abandoned properties from city neighborhoods. An examination of demolition records in the 28

city blocks of North Oak Park from 2004 to 2007 shows that this public policy, driven by events, acted steadily throughout the period: 5 demolitions in 04-05, 17 in 05-06, 13 in 06-07, and 8 in the last half of 2007- a total of 43 North Oak Park properties in three and a half years (City of Flint 2012). Given that 42 properties alone vanished between 1999 and 2011 in the eight city blocks of Table One, it can be inferred that demolition was a regular occurrence in the neighborhood during the years preceding and succeeding 2004-07 as well.

Demolition was expensive in more ways than one. Flint's houses were relatively small, and they were wooden and free-standing, so demolition was inexpensive, costing approximately \$3,900 per house in 2011 (Longley 2011c). But with "10-000-plus" vacant homes in the city, the total potential demolition cost of \$39,000,000 was beyond even the amount budgeted to clean up Buick City. Both the scale and cost of such comprehensive demolition was simply beyond the city in any given year, and so demolition continued on a steady and ongoing basis: 312 structures citywide in 2009-10, 599 in 2010-11, 423 in 2011-12. The average 2009-11 demolition rate of 445 structures per year meant that even if no further homes were abandoned, it would take Flint another 22 and a half years to remove its vacant building inventory. Demolition, in other words, would be an ongoing feature of Flint public policy for some time to come, barring either a sea change in the city's housing market or a vast increase in the city's demolition budget. Neither, unfortunately, seemed likely.

Demolition merely removed a house from Flint's inventory of vacant buildings; it did not confront the issue of who owned the now-demolished property, nor who maintaining the vacant lot that remained, nor how to repurpose that vacant lot for a different future. In all of these other respects Flint was extremely fortunate to have a public policy initiative in the form of a regional land bank, the Genesee County Land Bank, that was broadly perceived as being a nationwide leader in the challenge of confronting vacant property (Government Innovators Network 2007, Dewar 2009). The chief innovation of the land bank was in preventing the routine practice where speculators would purchase foreclosed properties, profit on their resale, before the new owners proceeded to let their properties go into foreclosure again. Instead, the land bank 'bundled' properties to make them unattractive to speculators, and then transferred unsold properties to the Land Bank (Dewar 2009, 11-12). The strategy was successful; by mid-2012 the Land bank owned more than 8,000 vacant parcels in Genesee County (Fonger 2012), the vast majority of them in Flint.

But placing a vacant parcel in the hands of a nonprofit Land Bank, a procedure that was still a dream for most shrinking cities elsewhere in the United States, did not resolve Flint's struggle to confront the abandonment of its small-scale housing stock. Market values remained so low in

Flint that the vacant land bank properties were worth little or nothing. Speculation and profiteering was defeated, but the lots were not necessarily repurposed; instead they became a public responsibility and expense. And as the number of vacant Flint lots under Land Bank ownership proliferated, the original Land Bank strategy to have county funds and land bank sales finance the maintenance of low-value lots in Flint began to backfire. In 2011, Genesee County announced that it would no longer fund the Land Bank's property maintenance costs (Fonger 2011b). What had seemed like a clever idea to devolve costs away from Flint and transfer them to the county no longer seemed feasible in the face of a statewide budget crisis.

North Oak Park experienced both city-funded demolition and Land Bank-motivated property acquisition. In mid-2012, the Land Bank owned 44 vacant houses within the neighborhood (ownership of vacant parcels where houses had been demolished was not available as of the time of writing). This was a large number, to be sure, but it was only a small portion of the total number vacant (the neighborhood's four northernmost blocks alone had 50 vacant parcels as of 2011). While the Land Bank doubtless owned many more vacant lots in North Park, These numbers raised two significant policy questions that were also significant questions of design, planning, and development: How many of the dozens vacant lots in the neighborhood were publicly owned? And how would the Land Bank formulate a coherent strategy for the lots it did own, particularly if they were interspersed between other vacant lots? Neither answer was immediately forthcoming, nor had either been successfully addressed in other shrinking American cities, even those like Philadelphia that had dedicated major policy and fiscal resources to condemning and acquiring vacant property. Not only did many other American shrinking cities have even greater numbers of vacant lots than Flint, but they lacked Land Banks of equivalent quality as well. Property fragmentation in Flint's residential neighborhoods, in other words, seemed to be as much an insuperable challenge to redevelopment there as remediation and resale was in the city's industrial areas.

### **Preliminary conclusions**

Flint's built environment and policy environment were not entirely unique to the city. Each American shrinking city shared these characteristics to some extent, not only because the urban regime model proposed by Fainstein et al (1983) could be found across the United States, but because many American cities shared Flint's residential-industrial landscapes of small single-family home parcels and larger industrial tracts. Even crowded East Coast cities like Philadelphia possessed the same fundamental property structure, albeit at much higher densities than Midwestern Flint.

Flint's policy challenge was could thus be compared to other shrinking cities nationwide. The Genesee County Land Bank was held up as a model precisely because so many cities faced the challenge of obtaining ownership and then redeveloping vacant tracts of residential land. Yet Flint's particular built environment also drove certain aspects of the city's policy regime. Chief among these was the small size and relatively low demolition cost of Flint's detached single-family wooden houses. The relative disposability of these structures not only made them quick to decay, but in a sense relieved the city of the responsibility of considering their reuse. An abandoned home in Flint was doomed to eventual demolition; reuse was out of the question, not least because of its expense. The very rapidity and low cost with which Flint was developed made the city's abandonment and clearance that much easier to achieve. In this sense Flint had many similarities to other Midwestern cities like Detroit and Cleveland, whose wooden single-family housing stock was equally disposable. But East Coast cities like Baltimore and Philadelphia were different; these were rowhouse cities, and this made demolition not only more costly, but drove these cities to retain their abandoned housing longer. Tracts of boarded-up homes were a common sight on Baltimore streets in 2011.

Flint's treatment of its industrial properties also bore many similarities to treatment of abandoned industrial sites elsewhere. Not only was the former owner of much of industrial Flint a multinational corporation with its own internal policies, but American environmental laws tended to argue for an identical treatment of all former industrial parcels: total clearance and remediation prior to any consideration of reuse. Across America on industrial sites owned by national corporations, structures were demolished and sites cleared long before viable reuses for the properties were found (Ryan et. al. 2012). While this addressed environmental concerns, in the case of older industrial properties it also ensured the loss of structures with significant historic and heritage value (Ryan and Campo 2012).

The case of Flint provides an excellent example of the particularities of the American shrinking city. The contrast of a small, relatively disposable residential fabric, and large industrial sites subject to national environmental controls created two different policy problems in shrinking cities. Residential parcels were a public expense to clear and acquire; industrial parcels less so. In both cases reuse was a pressing problem, both because of weak markets but also, at a greater remove, because planning and design priorities for such parcels were unclear. Built quickly and demolished equally quickly, and dominated by private interests and relatively autonomous urban regimes, American shrinking cities had not yet come to terms with their future appearance, unless that appearance were one of a large vacant lot.

Preliminary evidence indicates that the policy experience of shrinking cities in other nations is quite different. In Germany, for example, tolerance of historic industrial structures seems much greater, resulting in such entities as the Emscher Landschaft-Park in the Ruhr Valley. And with greater public ownership and control of land, demolition can occur on a much more controlled basis, as in Leipzig where housing has been selectively demolished. The experience of the former Soviet Union, where all land, enterprises, and economic activity was once public and where planning policy was nationally centralized, is likely to be even more different. Additional research would do much to further illustrate the relationship between the particular built environments of shrinking cities elsewhere, and the planning and policy prospects for those cities' rebirth.

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Figure 1. Location of Flint, Michigan within the United States. Source: Google Maps.

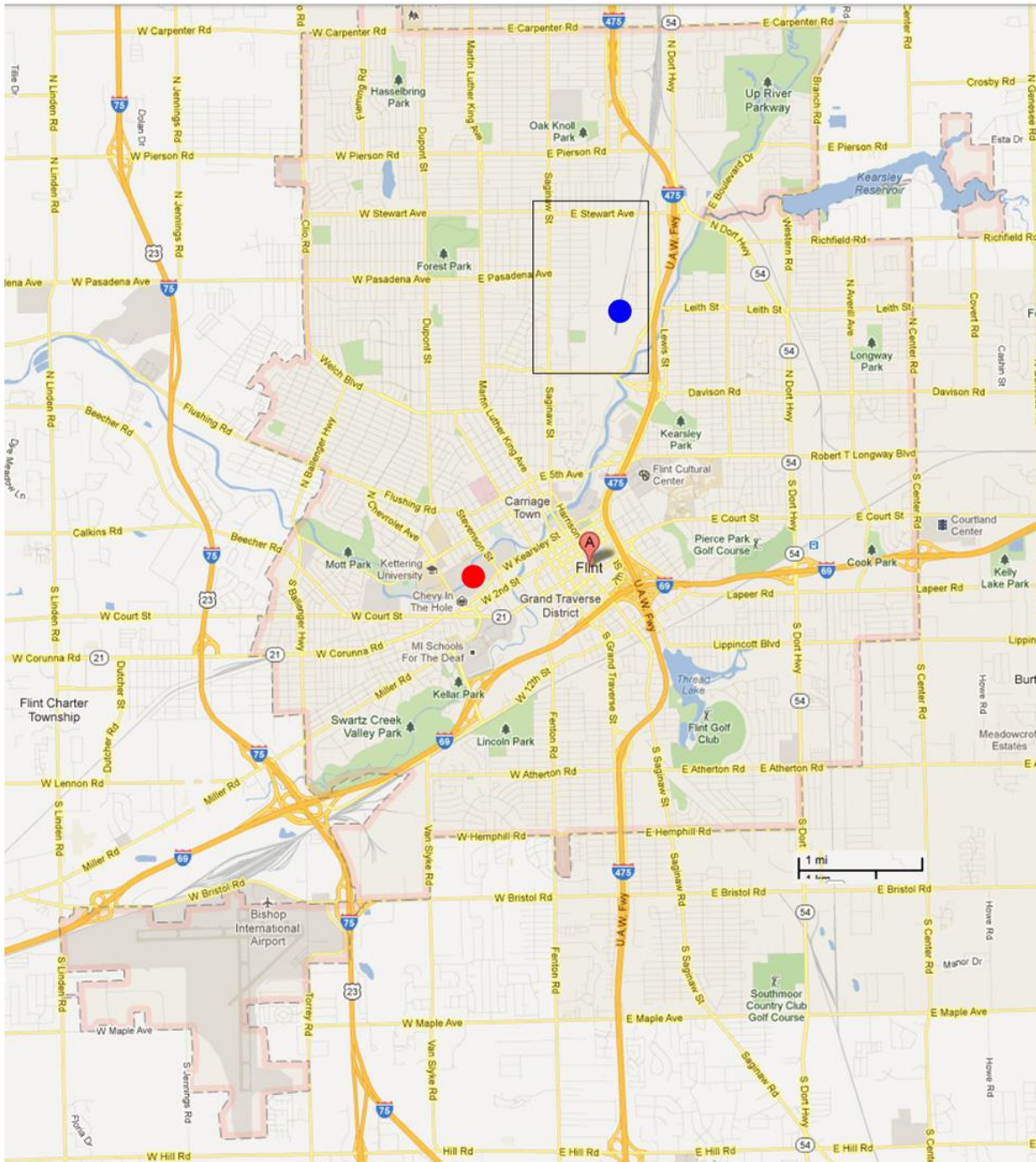


Figure 2. Location of Chevy in the Hole plant (red), Buick City plant (blue), and North Oak Park neighborhood (outline) within the city of Flint. Source: Google Maps.

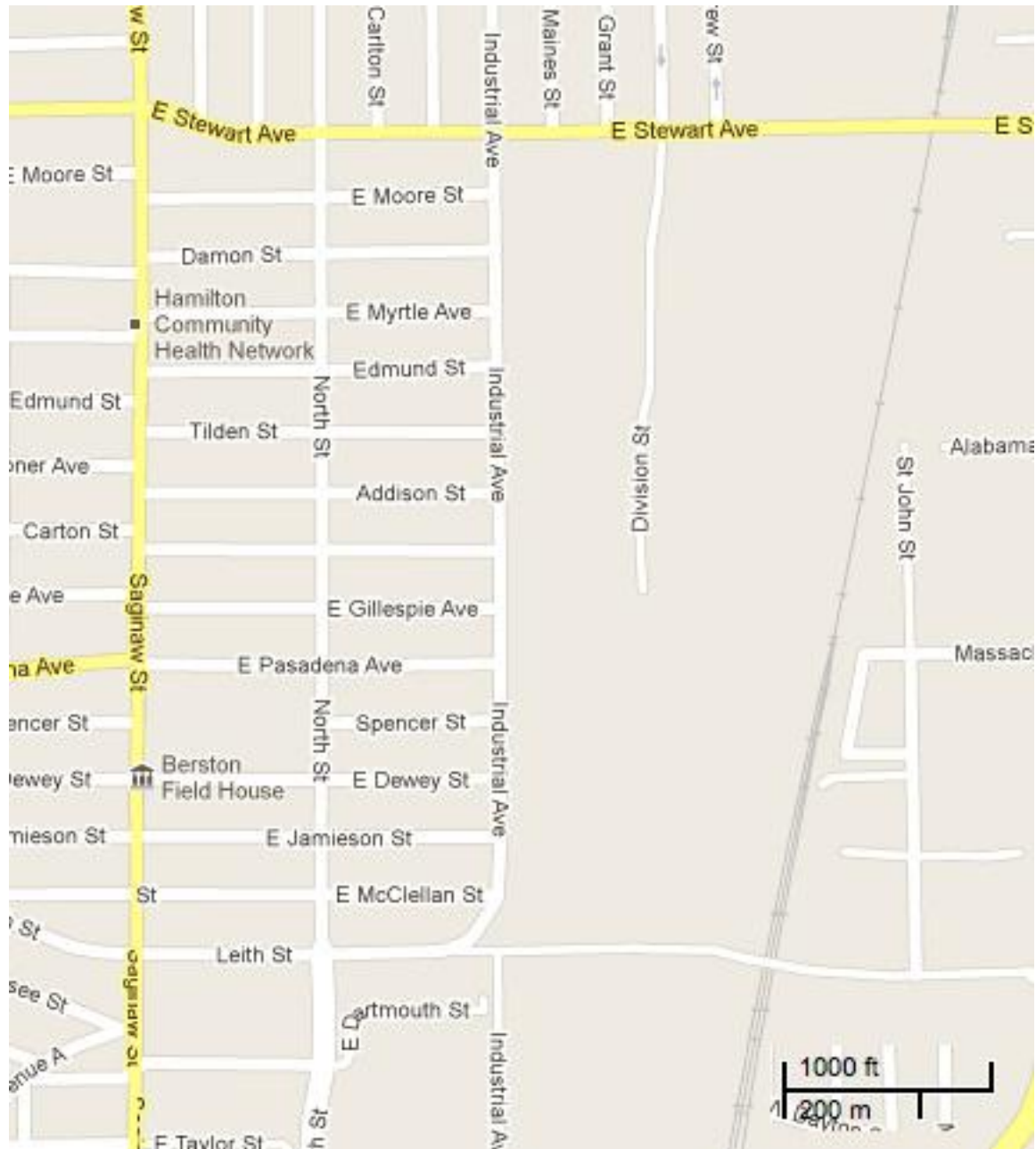


Figure 3. North Oak Park neighborhood, bordered by Stewart, Saginaw, Leith Streets, and railroad. Source: Google Maps.



Figure 4. A sample Sanborn map of North Oak Park from 1914 shows a neighborhood undergoing rapid housing construction and industrial development. Source: Sanborn Map Company.



Figures 5 and 6. Comparing aerial photographs from 1999 and 2011 shows a process of progressive housing abandonment and industrial demolition in North Oak Park. Source: Google Earth Pro.

Figure 5. The southernmost residential blocks of North Oak Park in 1999.

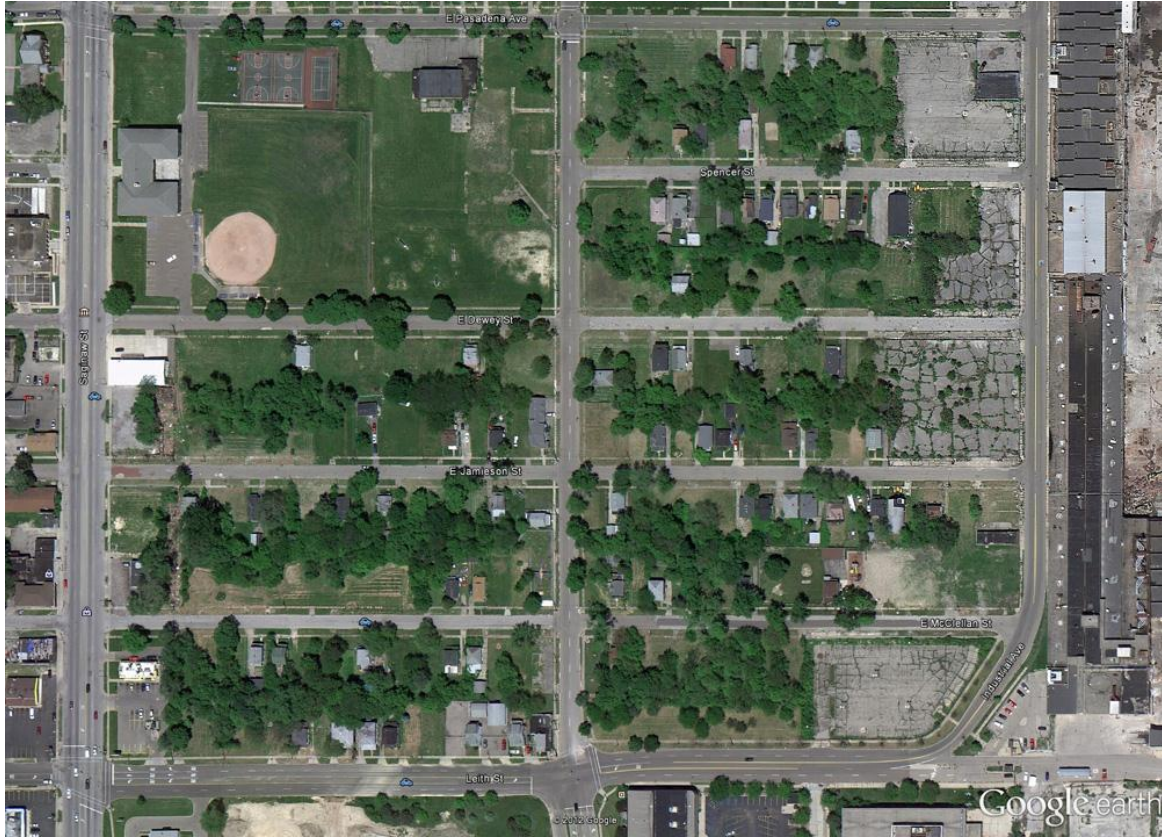


Figure 6. The southernmost blocks of North Oak Park in 2011.