

School Oriented Development: Elementary Schools as a New Opportunity for Sprawl Repair

Carolyn Reid
Arizona State University

Abstract

This research supports the development of a retrofitting prototype that utilizes schools as community centers. Termed School Oriented Development, or SOD, the model conceptualizes the use of schools as a new entry-point for sprawl repair using a proven approach – schools as community centers – in a new application. The idea is to develop the under-utilized land around existing suburban elementary schools by adding service facilities that are shared between the school and the community. This paper explores the opportunities, co-benefits and implementation strategies of redeveloping suburban schools as compact, mixed-use neighborhood centers.

Introduction

Recently, New Urbanists have written that the mission of the next generation of planners and architects will be to find ways to retrofit the existing suburban fabric into a more environmentally-efficient, economically-viable, people-friendly version of urbanism (Duany, 2010; Talen, 2010). Given this challenge, the planning profession needs to continue to innovate ways to penetrate the suburban fabric and redevelop from the inside out. The strategy presented in this paper incorporates some of the techniques published in two recent New Urbanist books that address the same issues: *Retrofitting Suburbia* by Dunham-Jones and Williamson (2009), and *The Sprawl Repair Manual* by Tachieva (2010).

This research gives an existing concept—schools as community centers—a new name: School Oriented Development, or SOD, and conceptualizes how this new paradigm might be used as a strategy for retrofitting suburban development. Many school facility-planning theories have proposed an integrated role for schools within their surrounding neighborhood, advocating analogous approaches to creating “community schools” that involve social and community services at school sites that support both students and local residents. The Coalition for Community Schools [CCS] (<http://www.communityschools.org/>) has acted as a clearinghouse for information and resources concerning this type of school development.

Community schools are both a place and a set of partnerships between the school and other community resources. There are a number of national models and local community school initiatives that share a common set of principles: fostering strong partnerships, sharing accountability for results, setting high expectations, building on the community’s strengths, and embracing diversity and innovative solutions. (CCS, 2011)

As of 2009, community school initiatives had been adopted in 44 states (CCS, 2009), at both the local and state levels, and have consistently shown positive results for students, families, schools, and communities (Blank, Melaville, & Shah, 2003, p. 33). Research attributes the growth of this movement in the last few decades to four key factors:

- 1) the call for improved educational quality and academic outcomes among young people;
- 2) the demand for more efficient and effective health and social service delivery designed to meet the comprehensive needs of children and families;
- 3) increased recognition of the developmental needs of young people and the importance of building on their assets; and,
- 4) expanded efforts to strengthen the human, social and economic underpinnings of neighborhoods and communities. (Melaville & Blank, 1998, p. 7)

Despite the popularity of this concept in the education community, the idea of schools as community centers has not entered the mainstream of urban planning thought or practice. Whereas most of the existing literature collected and distributed through CCS focuses on the school facility itself, the proposal of this research is to truly integrate suburban schools and their surrounding communities for neighborhood-level planning that benefits the education of students as well as the everyday lives of local residents. As the community schools movement continues to grow, planners should be engaged to support and leverage community schools as a suburban retrofit strategy using their

unique role as mediators of public and private interests. Furthermore, planners tend to have a broad perspective of communities that can facilitate synergistic partnerships and development patterns beyond the immediate school site.

This paper explores the opportunities, co-benefits and implementation strategies of redeveloping schools as compact, mixed-use neighborhood centers. Additionally, the possible redevelopment pattern that an SOD strategy could set in motion is discussed. The intention of this paper is to present a conceptual argument for the use of SOD as a retrofitting tool, acknowledging that more research and case studies are necessary.

Precedents for School Oriented Development

In the literature, there is both historical precedent and a well-documented modern movement for planning communities around schools. Perhaps the first example is documented in Clarence Perry's 1929 monograph. Perry's "Neighborhood Unit" proposes neighborhood-level planning around elementary schools and other civic institutions. Perry chose the public school for the center because, "It is the one conspicuous governmental edifice that is found in every local community, and because of its importance it deserves a dignified site. Placing it in the central zone of the unit not only serves the convenience of the pupils but emphasizes its significance to the community" (Perry, 1929/1974, p. 72).

More recently, urbanist Roy Strickland developed a paradigm called the "City of Learning®" which seeks to better integrate communities with educational institutions. The basis of Strickland's model is the need for education to reach beyond the school building and into the community, providing real-world contexts for learning and mentoring. The City of Learning® is based on ten principles, including several that could be applicable to suburban retrofits: break out of the big box school; mix uses at school sites; coordinate agencies and funding sources that can contribute to school projects; and, consider the private sector in delivering learning facilities and services (Strickland, 2003, p. 5 - 7). Strickland's approach has, thus far, been applied mostly to inner-city schools.

A parallel approach has been documented by a coalition of five organizations with a publication entitled "Schools as Centers of Communities: A Citizen's Guide for Planning and Design" (Bingler, Quinn & Sullivan, 2003) that brings together design recommendations and case studies for creating school-centered neighborhoods. The guide recommends reinvesting in schools and communities simultaneously. The case studies in this publication are split between urban schools, where the schools benefit through partnership with community organizations like the YMCA, and rural schools, where an agglomeration of services can enhance value to widespread residents.

Also in the last decade, the principles of Smart Growth have been harnessed to propose a better model for education called "Smart Growth Schools" that promotes smaller, more community-oriented schools (Goldberg, 2005; Lawrence-Hurt, 2008; Smart Growth Network, 2008). Norris of Placemakers, a prominent New Urbanist firm, created an evaluation method for measuring existing conditions of schools called the "Smart Growth Schools Report Card". The Report Card also makes suggestions for improvements, with the goals of saving the community money, decreasing the environmental impact of the schools on the community, improving the health of students, and increasing long-term support for the school system by those who do not

have school-aged children (Norris, 2009). While this may be a useful tool for measuring results, it does not present an approach for making schools more compatible with Smart Growth ideals.

As shown by these precedents in school-centered planning, there is a demonstrable overlap between community planning, education, health, and social goals that can be addressed through the development of vibrant community centers. SOD takes these precedents a step further by balancing the needs of the school with the needs of the community to create a neighborhood that serves all local stakeholders, including those without school-aged children.

School Oriented Development

The novel aspect of using SOD as a suburban retrofitting strategy is the use of existing school sites as an opportunity to initiate neighborhood redevelopment. The idea is to develop the under-utilized land around existing suburban elementary schools by adding service facilities that are shared between the school and the community. SOD nodes would be walkable, service-oriented neighborhood centers that provide the daily needs of residents and reduce car dependence.

New facilities in the SOD should be oriented around a central square or plaza on the school site that acts as a focal point for the neighborhood center. This could be a flexible space that accommodates markets, concerts, holiday celebrations, and other special events for the neighborhood.

Some of the facilities added to the school site in an SOD would be shared between the school and the community, like a library media center, recreation center, health/dental clinic, and a performing arts center. Other uses added through private development would foster community and increase social capital among neighborhood residents, like third places and neighborhood retail, including cafes, coffee shops, groceries, dry cleaners, drug stores, and banks. In order to adequately serve the neighborhood's stakeholders, the center may also include facilities like a day care, preschool, adult education center, or a senior center, depending on local demand.

In order to create a safe, neighborhood center that is active after-hours, an effort should also be made to provide housing options on the school site. In the first stages of an SOD at an existing school site, housing could be made available for teachers from the school. Naturally, veteran teachers with their own families would not be interested in living on site, but new, young, under-paid and over-worked teachers may be attracted to work at schools that provide subsidized living quarters.

The SOD retrofitting strategy is essentially one of "urban acupuncture" (Ellin, 2006), creating nodes of vitality that spur densification, but at the same time integrate with surrounding low density by being both incremental and transect-based. The incremental approach is important to retrofitting because all members of the community may not understand the benefits of a more compact, mixed-use development in the beginning. By starting with a center that doesn't disrupt residents' habitual suburban lifestyles, they can begin to understand the utility of being able to chat with neighbors at a coffee shop or walk five minutes to pick up a gallon of milk gradually, without having a new lifestyle forced upon them. The adoption of a form-based code would facilitate the successional change of the suburb, and begin to diversify development types.

The nodal, pedestrian-oriented development pattern proposed by SOD is similar to TOD (Transit Oriented Development), but begins with place and works to develop accessibility, rather than the other way around. Whereas TOD is based on transit stops, creating a corridor of nodes, SOD is based around neighborhoods, creating a network of nodes. SOD, then, could be characterized as a neighborhood-based approach to sprawl repair.

The reasons to use an SOD approach to retrofit suburban areas are two-fold: benefits to the community, and benefits to the school. More specifically, the transformation from an auto-dependent, disconnected lifestyle to walkable urbanism means positive change for the community, and the additional facilities and revenue for the school means improved educational outcomes. The distribution and under-utilized space of school sites provide the opportunity for redevelopment, but the benefits are distributed to the surrounding neighborhood as well.

Opportunities for SOD as a Retrofitting Tool

The opportunity that school sites offer is important because a major obstacle in retrofitting suburban development is finding an entry-point to catalyze change. Dunham-Jones and Williamson argue that large projects are needed to produce momentum for change, and many of their projects focus on rehabilitating commercial strips and big-box stores (2009). Similarly, Tachieva identifies sprawl repair targets as “commercial, employment, and transportation nodes with the best potential for redevelopment” (2010, p. 17), which tend to be at major arterial intersections. This approach may work in some cases, but often commercial locations are removed from residential areas, and so we need a point of entry that is more accessible to residents of suburban areas. Public schools can provide this opportunity based on their size and distribution.

Many public schools built in suburban areas over the last 30 or so years used a model that requires at least 15 acres of land for an elementary school that serves 500 children (Funders’ Network for Smart Growth and Livable Communities, 2002). This has tended to create big box schools that float in an expanse of empty space. Even after adding playgrounds and recreation fields, many suburban elementary schools still have several hundred-thousand square feet of under-utilized space (Figure 1).

Also, the distribution of elementary schools in the suburban landscape makes them an excellent starting point for developing neighborhoods. Public elementary schools are smaller than middle schools or high schools, and serve a smaller area. The hierarchical setup of the public school system in the U.S., where several elementary schools feed into one middle school, and several middle schools feed into one high school, means that the elementary school will be the most neighborhood-based. When half-mile buffers, widely-recognized as the threshold for walkability, are applied to elementary schools in a suburban landscape, the potential coverage area is very high (Figure 2). This makes sense because public schools are constructed based on local demand.

The opportunity provided by available space and distribution pattern of elementary schools is underscored by the reality that many suburban school facilities are aging or beyond capacity (Bingler et al, 2003), and the necessity of rehabilitation is imminent.

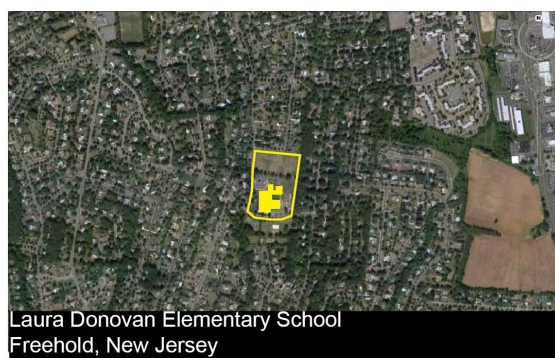
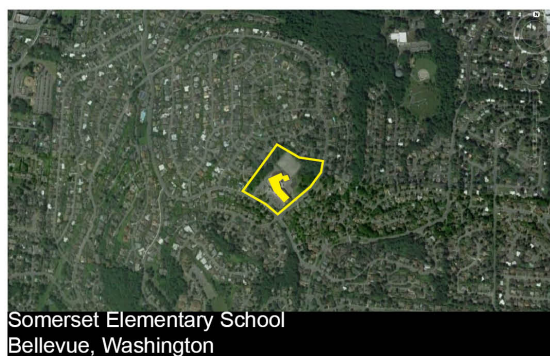
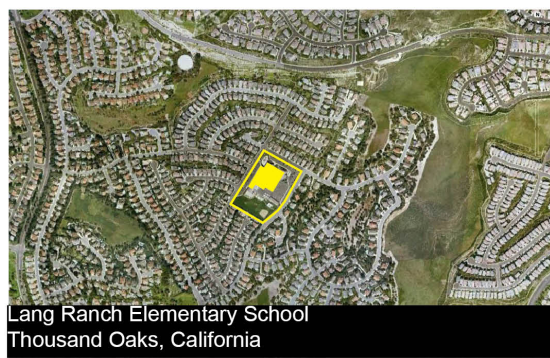


Figure 1:

A sampling of public school sites, outlined in yellow with buildings blocked in yellow, from around the United States shows an abundance of underutilized land.

Images are from Google Earth (2010) at approximately 7,000ft.

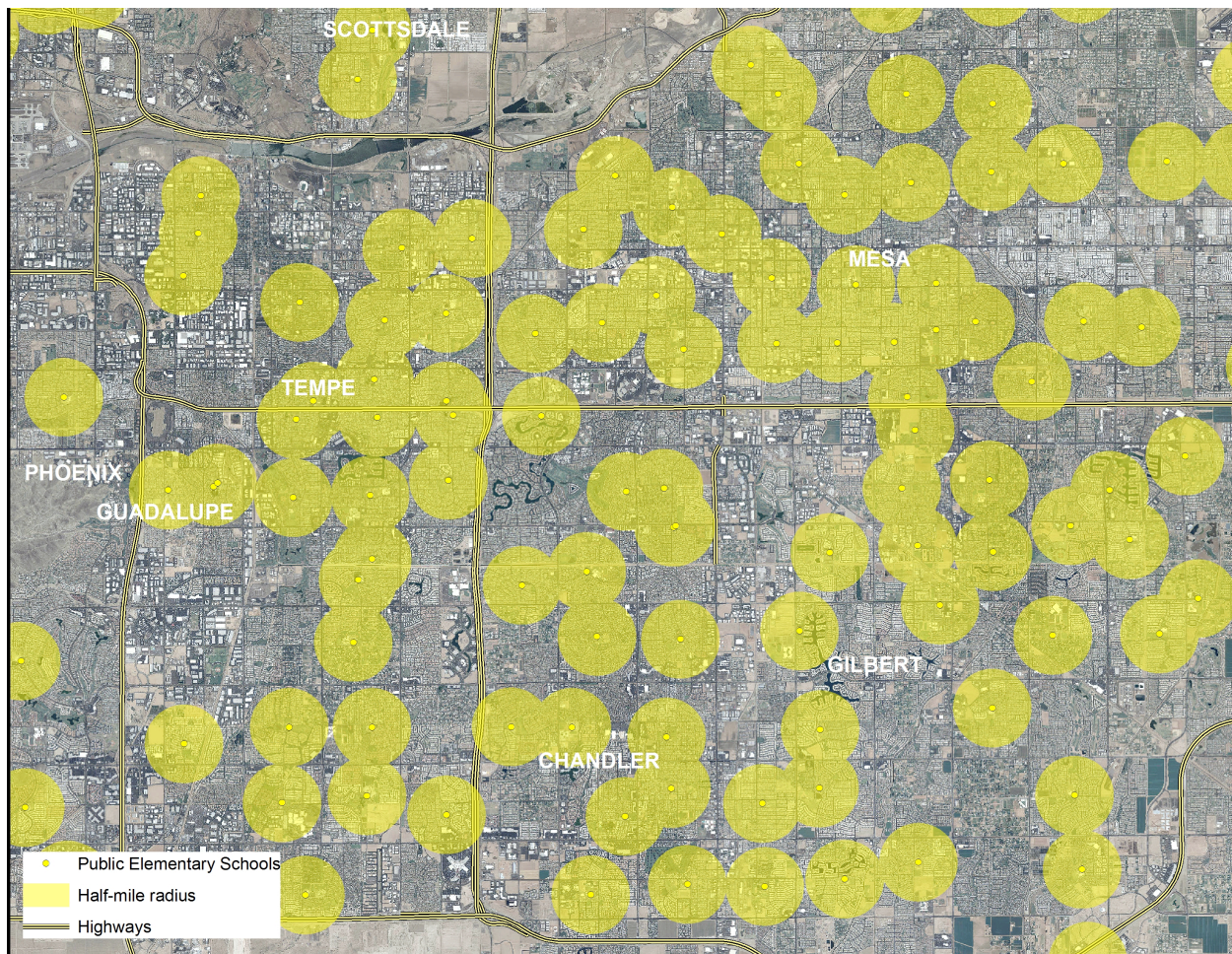


Figure 2:

This map shows an example of the distribution of public elementary schools in the (mostly suburban) communities of the East Valley of the Phoenix, Arizona metropolitan area.
Image generated using ArcGIS

Co-Benefits of SOD

The co-benefits of SOD are financial, for the school, and social, for the neighborhood. As discussed above, SOD could support the school by providing a subsidized housing option for teachers. It could also provide a new revenue stream for public schools that is based on local investment, especially important in an economic recession that has cut public school funding. New development on under-utilized land could be conditioned so that a leasing rate or sales tax on goods would go directly to the school's budget. This local investment strategy could galvanize community patronage to support the businesses that support their local school.

Beyond the economic benefits to schools and teachers that SOD could involve, there is a social imperative to provide a more child-friendly environment in the suburbs; one that fosters independence both in mind and mobility. A widely-cited problem of the current suburban status quo is children's dependence on their parents as chauffeurs to school and activities (Duany, Plater-Zyberk & Speck, 2000). Urban design interventions that improve pedestrian access to the school would allow children greater mobility.

Additionally, the facilities that share the school site in the new neighborhood center—like the library media center and recreation center—would be conveniently available to children after school for further community engagement.

The need for greater independence and opportunities for experiential learning for children must be balanced with the necessity of safety. A local community center that encourages familiarity among local residents can act as a built-in security system for the neighborhood, as per Jane Jacobs' concept of "eyes on the street" (1961/1993).

SOD Retrofit Implementation Strategies

The process of SOD could be facilitated through a contract between school officials and a private developer. It would be important to address the needs of the school, like more classroom space or improved facilities, as well as creating value for the developer. The contract would outline the sort of private businesses that would and would not be permitted on the school site, with special sensitivity to the children that attend the school.

SOD would begin with redevelopment of the school site, but the main goal would be to develop a walkable, mixed-use neighborhood around that site. This process may be aided by a form-based code overlay that endows current commercial landowners with increased density and intensity to spur retrofits of nearby strip malls and big box stores (Dunham-Jones & Williamson, 2009; Tachieva, 2010), but also allows the owners of single-family houses the opportunity to construct accessory buildings on their lots. This will encourage more mixing of uses, as commercial landowners add office space and multi-family dwellings to their sites, and residents add granny flats and live-work studios to their parcels.

For SOD to be effective in the suburbs, significant efforts must be made to improve walkability. This would mean reconnecting aimless, dead-end, and cul-de-sac streets to create a coherent grid (Tachieva, 2010). However, the single-family housing pattern may be too tight to inject many streets in the beginning of an SOD retrofit project, so building a network of multi-modal paths may be a less intrusive solution.

As an SOD node matures, land values surrounding the site would appreciate, spurring infill development, and perhaps connection to rapid transit. Ultimately, SOD would create a contained, urban neighborhood whose residents would be able to access their daily needs without the use of a car.

Conclusion

The establishment of SOD as a new planning paradigm would provide a useful strategy for retrofitting suburban developments. Further work on the SOD concept could create a typology of community centers based on other school types beyond elementary schools, including public, private, primary, secondary, and post-secondary schools. SOD could be used in redevelopment, retrofitting and infill scenarios, as well as greenfield development. The key goal of SOD, with a nod to Clarence Perry's original vision of the neighborhood unit, should be to create vibrant, walkable, resilient communities.

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