LEED ND Pilot Projects in Cleveland, Ohio

My most referenced article from my research comes from an article from the organization GreenCityBlueLake and talks specifically about the impact of LEED and LEED-ND on their surrounding areas. The article mainly focuses on projects in the Cleveland area which is where one of my case studies is located which is also why I chose this article to examine the most in depth.

The article starts out by talking about LEED and general and states that over 9,000 projects have been submitted to LEED and only 1,200 have been certified. LEED certification is a very prestigious recognition to be labeled on a building, it is not a design standard, and it is a measurement of the building.

They also talk about LEED-ND designed neighborhoods and that the average household in a LEED-ND neighborhood cuts annual costs $3,148. These costs are cut by savings from their: well-designed, energy-efficient homes, the easier access they have to transit, jobs, schools, and recreation. The article also states how cities and areas are becoming more “green” by giving examples of Gainesville, Florida which gives a 25% reduction of the permit fees for single family homes and fast track permitting for green buildings, also Sarasota County, Florida requires county buildings to meet LEED standards and offers fast track permitting to new commercial, residential or residential remodeling construction that meets USGBC standards. Another example of how cities are responding to LEED is in Cleveland where LEED-NP project coordinators and the city’s Office of Sustainability are forming a “green team” in order to handle changes to codes and hopefully help develop standards so that all developments in the city are green by nature.

LEED is a fairly new tool for measuring green design and is therefore continuously adapting to new features and changes. USGBC Vice President Tom Hicks states recently the USGBC has adjusted many of LEED’s components. Some of these adjustments include tightening the requirements to receive points for energy use by adding a prerequisite, a uniform 100 point scale for all rating systems, making the LEED credits more uniform across all of LEED’s rating systems, and an adjustment in the new LEED for Existing Buildings rating system that adds points or another prerequisite for reusing buildings and materials.

The main point of this article is to talk about the positives of LEED and what it brings to not only a neighborhood but also the whole area in general. It specifies on the Northeast, Ohio and states how they want to become one of the first regions to adopt green building standards community wide and also for government buildings. This article is somewhat persuasive in talking only about the positives of LEED and trying to convince the audience to follow what is being stated.

Is LEED ND in Existing Neighborhoods Possible?

In today’s world, people are becoming very cautious of the environment and the impact we have and leave upon it. What this means for Architects and Planners is that many of their clients are looking for designs that incorporate green aspects toward the environment and surrounding areas. This is where the United States Green Building Council stepped in created the measurement tool LEED, Leadership in Energy and Environmental Design. LEED is used to verify that a building or neighborhood was designed and built using strategies aimed at improving performance across a variety of different fields: energy savings, water efficiency, CO₂ emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts (LEED). A subsection of LEED that is a fairly new concept is LEED for Neighborhood Development. This rating system looks at smart growth strategies, urbanism, and green building. LEED ND is a unique tool because it is stepping outside the boundaries of looking at individual buildings but looking at the area as a whole.

For my later proposal, I am examining an area in Cincinnati that is located near Interstate-75, Northside/South Cumminsville. This area does not have any LEED certified projects, and when moving forward with my design proposals I am looking to incorporate green aspects that could make our proposals qualify for LEED certification. Due to the demand for green projects and green design I believe it is only reasonable to try to incorporate green aspects into our design. A previous class has already done the first phase of design proposals and within their design for my area, I chose their proposed new mixed use development of residential and commercial uses to try to implement LEED for Neighborhood Design aspects into the project (shown below). I believe that this is a good location to try to incorporate green aspects because this proposed development is close to the proposed bike path and close to the proposed transit hub.
Since this is an existing neighborhood and their buildings do not currently comply with LEED standards, LEED for Existing Buildings may be a route in which we will want to follow in order to gain certification for LEED for Neighborhood Developments. LEED for Existing Buildings measure operations, improvements, and maintenance. They work to maximize operational efficiency and minimize environmental impacts. It also addressed whole-building cleaning and maintenance issues, recycling programs, and system upgrades. However within the USGBC’s description of LEED for Neighborhood Development, it states that projects are often mixed-use although there are small single-use projects that complement existing neighborhood uses.

Seeking LEED ND within an existing neighborhood seems to be a tough task to accomplish since the neighborhood and area was not built for LEED certification. However, there are a few ways in which I am going to investigate that may work towards seeking a LEED ND proposal for Northside/South Cumminsvelle. One of the ways in which we could work towards getting LEED ND certification is by beginning with LEED for Existing Buildings certification with some of the main existing buildings that are already in this area. Since we are not necessarily just proposing new construction, we may have to have some of the buildings certified under the LEED for Existing Buildings category to help qualify for LEED ND. If we had the main buildings in our development LEED certified it would be a helping hand when putting other requirements together for the overall certification. A case study that I found for LEED EB is a little different than my other case studies. It is the FedEx Express World Headquarters. The consultant for this project was SDKeppler and where was where I found most of my information for this project and it took about 33 months to complete. The development consists of eight buildings and covers almost 90 acres, from reviews that I read about the development it seems to be very functional and useful for what it was attended. A neat aspect of this project is that it includes a 1.5-mile bike path. Although this is not a neighborhood development, this project was a massive undertaking covering over one million square feet. It is seeking LEED EB certification so I believe this is something that we could keep in mind when working with our area.
In Cleveland, Ohio there are four LEED ND pilot projects that focus on design in and between private and public spaces that encourage biking and walking to work, shop and play. One of these four projects is what I chose as my first case study and that project is Legacy at Saint Luke’s Pointe. Saint Luke’s Pointe is part of the former medical campus of Saint Luke’s Hospital, which closed in 1999, and rapidly being redeveloped. Saint Luke’s Pointe is a major undertaking and will feature many environmental and social sustainability aspects that include the reuse of the main historic structure, the renovation of the Shaker Medical Office Building; a cooperative learning campus, and Legacy at Saint Luke’s Pointe. This development is a sustainable, green neighborhood that is located across the street from the former Saint Luke’s Hospital and it features 60+ new townhomes and single-family residences. The total cost of this development is upwards of $72 million. One of the problems with this development was the fact that it was a hospital campus and although it presented some unique awards being located to such a prestigious landmark, there was a lot of work that had to be done in preparing the construction site for residential and commercial development from its previous use. The website for this development states however that they are not having a problem selling units so it is an example of a very vibrant well designed LEED ND development.
There is one sole project in Cincinnati that is a LEED-ND pilot project, it is located in Mount Adams and called The Arbors. The Arbors is the City of Cincinnati’s sole LEED-ND (Neighborhood Development) Pilot Project. The U.S. Green Building Council introduced LEED-ND Pilot as its most comprehensive green rating system, addressing the entire development – land use and building structure as well as the surrounding area. The site is in Pleasant Ridge near the new P.R. Montessori School, which interestingly enough was the first LEED certified public school in Ohio. This development was planned with social, economic, and environmental sustainability aspects in mind. The Arbors project focuses specifically on energy efficiency and water management through what they call low impact development initiatives. Another measure that is being taken on this development focuses on the building footprints, roads, and parking, which generate impervious surfaces that exacerbate runoff into over-burdened piping. Such a development usually depends on fossil fuel, attenuating economic, political, and climatic stress. Some more categories within the LEED rating system that this development incorporates are smart location, neighborhood design, green technologies, and innovation in design. It is a very strong development and will probably be seeking silver or gold LEED ND certification. This is the type of project that I would like to see proposed in my area. This is a fantastic case study when looking at the proposals and designs they made and basing parts of my proposals off of this development.
These three previous case studies all present projects performed with different techniques that may be the direction I head with the proposals for my area. When working towards our next proposal I want to aim toward LEED for Neighborhood Development certification. When looking specifically at the rating system that judges a LEED ND development, it is based off of 100 total points with ten extra points available, being six for innovation and design process and four for regional priority credit. However, the break down of the one hundred possible points consists of twenty-seven for smart location and linkage, forty-four for neighborhood pattern and design, and twenty-nine for green infrastructure and buildings. The smart location and linkage category focus on imperiled species and ecological communities, wetland and water body conservation, steep slope prevention, among many other things. A few specific requirements of neighborhood pattern and design include walk-able streets, compact development, reduced parking footprint, among many others as well. Green infrastructure and design focuses on certified green building, minimum building water and energy efficiency, and construction activity pollution prevented, also among many other ratings in this specific category. There are four stages in being LEED certified: Certified (40+ points), Silver (50+ points), Gold (60+ points), and Platinum (80+ points). There are many criteria that you can meet in order to gain points while seeking LEED certification. However as one of my research articles noted, it is not easy to get, out of 9,000 projects that had been submitted at one point only 1,200 were certified. It is a great reward to have your hard work LEED certified. This is why it is good to gain the knowledge and understand what goes into the grading so that we can utilize points in every which way we can when designing our area.
Works Cited


