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Critical Review of the LEED-ND Rating System

Introduction

Leadership in Energy and Environmental Design for Neighborhood

Development, simply called LEED-ND, is a rating system that inculcates the principles of green building, smart growth and urbanism into the first national system for neighborhood design. The LEED-ND has a certification program that allows independent-third parties to verify whether the location of a development and its design meet high levels of environmental responsibility and sustainable development. Although it is administered by the United States Green Building Council, LEED-ND is a collaboration of three organizations; namely, United States Green Building Council, Congress for New Urbanism and Natural Resources Defense Council. LEED-ND promises the country a livable and sustainable environment that would be convenient, safe and with minimum greenhouse gas emissions.

LEED-ND standards derive their strength from the principles that they foster. In addition, the LEED-ND provides the most objective tool for evaluating how new projects will affect the environment and the quality of everyday life. The LEED-ND tool also provides an incentive for creating developments that are friendly to pedestrians and to the environment. The tool promises a great deal of benefits. For example, the system encourages the selection of environmentally sound locations when choosing suitable sites for development. According to national figures, America is losing a considerable chunk of the countryside to sprawling developments. The LEED-ND recognizes this challenge and encourages smart growth strategies such as

redeveloping old buildings and abandoned urban lots. The tool also encourages putting up new developments close to existing communities and infrastructure to avoid encroaching on forests, wetlands and farmlands. According to Natural Resources Defense Council, another distinct strength of the LEED-ND standards is that it promotes developments that reduce the need to drive. Over the last three decades, new suburban areas have been coming up far away from towns' thus encouraging people to stay many miles from where they perform their daily activities. The result is that there are many automobiles on the road that contribute to greenhouse gas emissions. LEED-ND standards will be a game-changer in this field because they give credit to developments located in walking distances to dependable public transport systems. In the long run, this will lower the emission of gases into the environment and improve air quality within urban areas. The standards also encourage developers to use wide sidewalks to enable pedestrians walk to the nearby conveniences.

Most importantly, LEED-ND standards reward compact developments that encourage the use of less land to create maximum benefits. For example, LEED-ND standards encourage developers to create their developments close to public utilities such as parks and tree-lined streets. The idea is to encourage developers to use less land, but offer the residents a feel of green-environment and ease of access. This reduces the perception that an area is overcrowded, which is common in sprawling areas.

Lastly, LEED-ND promotes the conservation of natural resources such as energy and water. LEED-ND standards reward developments that encourage the use of natural light, the use of solar panels, and the use of natural

ventilation. The standards also recognize developments that use rainwater collection systems. All these measures save energy and reduce operational and maintenance costs. The standards also encourage the use of green building materials to make the indoor environment healthier without putting a strain on the natural resources.

On the other hand, LEED-ND has some systemic weaknesses. For example, the costs accrued by developers rise significantly when they pursue LEED-ND. Although the costs incurred during the initial stages can be mitigated by the savings made in the long-run, developers might be concerned about the danger of overpricing their projects in the hope of securing a good LEED-ND rating. In addition, there is a possibility that developers might not have building components that meet LEED-ND specifications. This would in turn increase the cost of pursuing a LEED rating.

Another weakness with the LEED-ND is that it is a design tool, and not something to use in evaluating performance. For example, developers may make design choices that give them LEED points, even though the choices may not be the most appropriate for that climate. The fact that the design standards are not climate specific may disadvantage developers from climates that differ significantly from other parts of the country. In addition, since LEED considers the overall points, some developers may aim to score some quick points in the areas of green environment and healthy spacing. However, they would not aim to score points in the costly areas such as renewable energy; for example, the photovoltaic solar panels are costly and some developers would not dare to provide them due to the associated costs.

Another weakness in the LEED-ND system is the standard way of awarding points. Critics have argued that the system is not sensitive to the environmental conditions of an area. For example, building in Maine and Arizona would be given the same points for an attribute like water conservation, while water conservation is a very pressing issue in Arizona. It would make more sense if the rating system awarded points based on the principle that is more important to a specific location. All these factors combined with the high cost of certification and compliance make some developers critical of the LEED-ND rating system.

How Planners and Designers could use LEED-ND to Improve Sustainability and Livability

The criteria used by LEED-ND certification to rate developments promotes sustainability and livability, hence designers can use this to their advantage. The LEED-ND acts as the best roadmap that can be used by designers and planners to incorporate the qualities that people look for in the 21st century built environment. LEED-ND puts a lot of emphasis on aesthetic qualities of the built environment, and this is something that echoes the concerns of most planners and designers.

For many years, designers and planners have been trying to come up with developments that incorporate sustainability and livability into their designs. However, it was not possible to create developments that can guarantee sustainability and livability without a common standard. LEED-ND considers sustainability as one of the key ingredients to a livable environment hence planners and designers now have a standard, which they can use to gauge how their plans meet the green neighborhood livability standard. The LEED-

ND will compel most designers and developers, who need the rating to market their developments, to put a significant emphasis on the sustainability and livability.

The overall vision of the LEED-ND is to have developments that are free of traffic, noise, pollution and other urban stressors while at the same time fostering a sense of security and comfort. The specifics stated in the tool encourage conservation of natural resources such as water and energy, which promotes sustainability and reduces maintenance costs. The tool also controls the encroachment of wetlands and farmlands, which further promotes a sustainable ecosystem. Lastly, LEED-ND systems promote designs that reduce the need to drive, thus reducing the harmful emission of greenhouse gases into the air.

Conclusion

Since the beginning of the 20th century, U. S experienced uncontrolled transformation of wetlands and forests into metropolitan areas. Although the situation has stabilized in the recent years, there are still concerns about the sustainability of the current development projects, and the way they address the challenges of urbanization. This has seen the culmination of housing developments that are planned for the communities. However, when people hear of housing developments planned for them, they immediately think of the worst scenarios; they think of increased traffic, increased pollution and few green spaces. Although this has been the case in the past, there are new smart designs that promise a better future, including safe, convenient streets with less traffic. One of such designs is the LEED-ND.

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