

**Sustainability:**  
**Leadership in Energy and Environmental Design**  
**And**  
**Gender Sensitivity**

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## **Sustainability: Leadership in Energy and Environmental Design and Gender Sensitivity**

The importance of sustainable design and equality in spatial planning is a growing concern in the United States. Much of this is due to the increasing population as well as the focus on protecting our natural resources and reducing the impact of development on our planet. Sustainability is defined as “the ability to achieve continuing economic prosperity while protecting the natural systems of the planet and providing a high quality of life for its people” (<http://www.epa.gov>). According to James P. Cramer, chairman and principal at The Greenway Group Inc., “many [professionals] have been talking about sustainability for over 4 decades” (<http://www.buildings.com>). Because sustainability is becoming a hot issue, planners, developers, government officials and citizens are expanding their knowledge on the topic and developing ways to protect our natural systems. The United States Green Building Council, the Congress for the New Urbanism (CNU) and the Natural Resources Defense Council (NRDC) developed The Leadership in Energy and Environmental Design (LEED) Green Building Rating System. The “LEED [system] provides a roadmap for measuring and documenting success for every building type and phase of a building lifecycle” (<http://www.usgbc.org>). The USGBC and other groups have also developed different LEED programs specific to certain types of projects. The programs include LEED-New Construction, LEED-Existing Buildings, LEED-Commercial Interiors, LEED-Core and Shell, LEED-Homes, and LEED-Neighborhood Development. These standards are a way to improve the environment while giving developers, builders and many others credit for their work.

With all the focus on sustainability, people neglect other issues such as gender equality. Gender sensitivity is a way to overcome the obstacles created by sexism

through generating respect and equality for an individual regardless of sex. According to the 2005 United States Census the total population was at 288,378,137. From that number 141,274,964 were males and 147,103,173 were females. Statistics show that as the population increases, the number of females in America remains higher than males and that the life expectancy of a female is longer than males. However, with females dominating the population and outliving men, they are still receiving a lower income. The design of a building not only needs to protect the environment, but the people living in the structure and community as well. Because of this, women are who we need to plan for and around, they are the future. Sustainability is an important issue, and the LEED standards help with it, but how do they work towards the dominant population? Through this paper I will look at the LEED-ND standards and determine if they were designed with and have any concern for gender neutrality or gender sensitivity.

LEED's are "a national set of standards for neighborhood location and design based on the combined principles of smart growth, new urbanism, and green building" ([www.usgbc.org](http://www.usgbc.org)). To become LEED certified, a project needs to be registered, meet prerequisites and achieve a minimum number of points throughout the project process. Based on the project type, points will be awarded through a checklist and tallied to determine the certification level. Levels include Certified (basic), Silver, Gold, and Platinum (outstanding). The checklist is divided into sections and then broken down into categories with pre-requirements and credits. To receive certification the pre-requirements must be completed and the credits are optional. The LEED-Neighborhood Development checklist includes Smart Location and Linkage, Neighborhood Pattern and Design, Green Construction and Technology, and Innovation and Design Process. This

paper will focus on the Smart Location and Linkage category and determine if it considers gender equality in the checklist. Table 1 shows the LEED-ND Smart Location and Linkage Checklist.

**Table 1**

Smart Location and Linkage		30 Points
Prereq 1	Smart Location	Required
Prereq 2	Proximity to Water and Wastewater Infrastructure	Required
Prereq 3	Imperiled Species and Ecological Communities	Required
Prereq 4	Wetland and Water Body Conservation	Required
Prereq 5	Agricultural Land Conservation	Required
Prereq 6	Floodplain Avoidance	Required
Credit 1	Brownfield Redevelopment	2
Credit 2	High Priority Brownfields Redevelopment	1
Credit 3	Preferred Locations	2-10
Credit 4	Reduced Automobile Dependence	1-8
Credit 5	Bicycle Network	1
Credit 6	Housing and Jobs Proximity	3
Credit 7	School Proximity	1
Credit 8	Steep Slope Protection	1
Credit 9	Site Design for Habitat or Wetlands Conservation	1
Credit 10	Restoration of Habitat or Wetlands	1
Credit 11	Conservation Management of Habitat or Wetlands	1

([www.usgbc.org](http://www.usgbc.org))

The AICP Code of Ethics states that planning should address the needs of a variety of people in diverse communities and settings. However, Dory Reeves, Principal Reeves Associates, UK, stated that “the practical importance of diversity and equality for spatial planning and sustainable development is still not widely understood” (Reeves, 2005). Planning is seen as one of the most diverse and gender balanced built environment professions, yet many planners see a satisfaction in what has already occurred and have not done much to progress gender equality. The way an environment is built will affect every aspect our lives. It will affect our ability to education, to paid work, to care for our families and to live a healthy and meaningful lifestyle. The LEED-

ND Smart Location and Linkage standards help with living a healthy and sustainable lifestyle, but do they address gender equality? These standards will be looked at using Dory Reeves' "*Planning for Diversity: Policy and Planning in a World of Difference*", to determine if they meet gender equality issues, not just sustainability.

It is widely known that planning is one of the main ways a society can contribute to the equality of men and women. Because of this, there are direct and indirect ways planning can impact women's equality. Equality is seen as equal participation from males and females in the development of their communities and equal access to the benefits of the development. Table 2 shows a list of characteristics that influence women's equality. The LEED-ND Smart Location and Linkage has six prerequisites and eleven credits. One of the prerequisites and five of the credits address gender issues to some extent.

**Table 2**

Influences on women's equality:
- Women's daily activities and travel patterns are likely to be more complex than men's as many women combine work with childcare, and nowadays increasingly with care of elderly relatives
- Poverty is gendered
- Mobility is gendered
- Caring is gendered
- Access to housing is highly gendered and dependent on income and access to the labour market
- Leisure patterns are gendered and so needs differ;
- Employment is gendered
- Women's contribution to sustainable development is likely to be different to men because they want different things
- Women's concerns are different from men

(Reeves, 2005)

Transportation is a significant issue for women. The availability of transportation, the location of mass transit and the option of a walkable environment are important in a women's daily activity. The only prerequisite to address this is the Smart

Location and Linkage section. The intent is to “encourage development within and near existing communities or public transportation infrastructure. Reduce vehicle trips and miles traveled and support walking as a transportation choice” (LEED-ND, 2007).

Many women, single or married, combine work, childcare and sometimes elderly care into their daily travel patterns. Because women are the caregivers and also part to full time monetary providers, a local transportation system or a walkable environment can help smoothly facilitate their daily commutes. The smart location standard addresses the idea of a public transportation system and walkability within the development. It does this by providing five options the project can undergo. The project can be built on an infill site, located near or planned adequate transit service, built with a ¼ mile walking distance to bus stop, or locate the project near an existing neighborhood. With these options the project has the flexibility to provide one or multiple ways to improve location for the community, especially women. However, there are still some concerns with how many people these standards will actually affect. The options for smart location state that for a project located or planned near adequate transit services only needs to be in place where “at least 50% of dwelling units and business entrances within the project are within ¼ mile walk distance of bus or streetcar stops” (LEED-ND, 2007). This is a step forward toward gender equality, but if only half of the dwelling units are within a reasonable walking distance to a transit service that still leaves behind a group of women and families.

Credits are optional for a project. However, as a project meets credit requirements it will increase the chance to move to a higher certification level. The five credits that provide gender sensitivity in their design include preferred locations, reduced

automobile dependence, bicycle network, housing and jobs proximity and school proximity. The first to achieve gender sensitivity is preferred locations. The intent is to “encourage development within existing communities and developed places...reduce development pressure beyond the limits of existing development” (LEED-ND, 2007). This credit encourages gender equality by considering the location of development and the reduction of sprawl. Reducing development pressure will assist women who live in the community by not encouraging land use patterns that are spread out. By keeping the development within a limited boundary, the ability for women to travel quick and efficient increases, as well as increasing social interaction. Social bonds within a community provide safety and comfort for its members. Women consider social ties within a community before moving to an area. According to the Women’s Community Revitalization Project, women want strong community ties and leadership within their neighborhood. If this is provided, women will feel safe walking around and letting their children play outside. Also, close proximity to local services and infrastructure provide multiple transportation options that will provide flexibility for women. This meets Reeves (2005) list of influences on women by allowing women better safety, access to mobility, facilities and the labor market. The requirements for this credit achieve gender equality by requiring the project to be located on an infill site, a previously developed site, or an adjacent site that has been previously or not previously developed. Along with the site location, the development is required to calculate the street network grid density (in street centerline miles per square mile) within a one mile radius from the perimeter of the site boundary.

Reduced automobile dependency and creating a bicycle network are two other aspects of the LEED-ND credit standards that address gender equality. As noted by Reeves (2005), mobility is gendered. Women are less likely to own a car or have access to one than men which creates a barrier. Because of this, it makes it difficult for women to complete daily activities. Having access to a car will determine the location of employment, level of employment, childcare opportunities, education facilities and community services. Having an available transit system or option of walking as a source of transportation will increase the opportunity for women. The intent of the reduced automobile dependency credit is to “encourage development in locations that exhibit superior performance in providing transportation choices or otherwise reducing motor vehicle use” (LEED-ND, 2007). By encouraging the development to reduce automobile dependency, women will have the option of using a transit service instead of a private vehicle. Because women have less access to a private vehicle and are also dependent on taking care of children and elderly relatives, using a transit system will help with completing tasks. Incorporating a bicycle network is another option given to developers. The intent for this is fairly simple. Its goal is “to promote bicycling and transportation efficiency” (LEED-ND, 2007). As mentioned above, it is difficult for women to have access to an automobile or public transit. By encouraging the project design to include paths and bike lanes will provide women with another option of mobility and completing activities. Similar to the concerns about smart location, the requirements for reduced automobile dependency and a bicycle network only require 50% of the dwelling units or business entrances to be included in part of the project. Even with the requirements only reaching 50% of the dwelling units, it is still a move toward creating better solutions for



women within a community development. Overall, by promoting these two activities women have a better chance at living in a community for a longer period of time and an increasing chance to complete daily activities such as work or caring for others.

Two other credits included in the Smart Location and Linkage section that are designed to be gender sensitive are housing and jobs proximity and school proximity. It is widely known that poverty is gendered. According to Naila Kabeer's book, *Gender Mainstreaming in Poverty Eradication and the Millennium Development Goals*, poverty is gendered because "women and men experience poverty differently – and unequally – and become poor through different, though related, processes" (Kabeer, 2003). Because of this women's concerns are different than men as well as their needs. In a traditional built environment women face difficulties when purchasing a home, finding a decent job, providing quality education to their children and even locating available nursing homes for relatives. Planning a development that considers job, house and school proximity improves women's access to affordable housing, facilities and the labor market. The housing and jobs proximity intent is to "encourage balanced communities with a diversity of uses and employment opportunities. Reduce energy consumption and pollution from motor vehicles by providing opportunities for shorter vehicle trips and/or use of alternative modes of transportation" (LEED-ND, 2007). Promoting mixed land uses give women the ability to achieve a better job, not be dependent on an automobile and afford a house. Locating housing in an area with mixed land uses creates multi-family homes not the traditional single-family homes. Since women receive a lower income, it is difficult for them to purchase a single-family house. Having multi-family housing in a development that is mixed use provides women with the chance to work near their home

and school. This makes it easier for women to travel and take care of their children and other needs. Developments that incorporate mixed uses usually include walkable areas, a wide variety of jobs and social networks. Women look for these characteristics in a community and are more likely to move to an area that has these qualities.

Finally, school proximity is important to gender equality. The LEED-ND standard developed this credit to “promote public health through physical activity by facilitating walking to school. Promote community interaction and engagement” (LEED-ND, 2007). Similar to the credits discussed above, this option is designed to help women meet their needs. Caring is gendered. Because of this, women are taking care of their children and sometimes relatives. Designing a community that encourages interaction among neighbors and incorporating a safe, walkable distance to schools allows women to not have to drive their children to school, but have them walk with neighbors. Having a school that is close to homes can create a sense of community and interaction among the neighbors. Knowing who attends the school and who the teachers are brings about a sense of safety among parent, especially single mothers. There is a sense of safety being provided that allows women to feel that their children are safe. This is an important factor in a woman’s life and by the LEED-ND standards recommending this in their certification process shows that the developers did consider the needs of women.

As mentioned earlier, planning has the ability to create gender equality. However, the key to good planning is to have a balance between systemizing and empathizing. The systemizing approach follows the idea that “planning is about influencing the future distribution of activities in space to create a more rational organization of land uses and linkages between them” (Reeves, 2005). Because the

planning profession is dominated by males, the systemizing approach is likely to be taken and the empathizing approach is neglected. The empathizing approach believes that “planning is about making spaces and places which work for everyone. Collaborative planning represents a consensus-building approach to urban and regional change...is concerned with how communities organize to improve the quality of places’ (Reeves, 2005). The LEED Green Building Rating System developed by the USGBC, the CNU, and the NRDC have begun to address issues of equality within sustainability. By developing standards for sustainability the opportunity to include spatial planning was given. This opportunity allowed the developers to break away from the male dominated field of planning and develop sustainable standards that address the direct and indirect influences on women.

Even with the LEED standards addressing gender sensitivity. This report has only reviewed one small section of the LEED-ND standards. There are still other sections in the LEED-ND standards that need to be reviewed as well as the other five available LEED standards for specific developments. The report shows that the Smart Location and Linkage section from the LEED-Neighborhood Development standards was designed to address gender equality. However, only one required element and five optional credits were truly targeted toward gender sensitivity. The smart location, preferred location, reduced automobile dependence, bicycle network, housing and jobs proximity and school proximity targeted key issues that women are influenced by everyday. Developing standards that open up windows for women in housing, traveling, safety, child or elderly care, jobs and social bonds is a significant impact on creating gender equality in a development. The other requirements and optional credits were very

helpful in providing a sustainable environment, but neglected to address the growing concern for gender equality. They were developed for gender neutrality, making a sustainable design the main element and providing the basics for a development.

In the end, a lot still needs to be completed before gender equality can occur, but the United States is making progress in creating a more sustainable environment. The LEED standards are a breakthrough for sustainability. To make waves in gender equality, the planning profession needs to shift from male domination to equal opportunity for both genders, move toward an empathizing approach in planning, and develop spatial planning policies. Spatial planning policies are important because they will help eliminate inequalities between women and men. Increasing the number of women in the planning profession will allow for a more gender sensitive approach in the design process. And moving toward an empathizing approach will make sure spaces and places work for everyone.

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