

Green City Design

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Downtown Winter Garden's slogan is, "Where Good Things Grow" which makes it the perfect place to implement more sustainable practices. This suburban community puts its pride and attention in nature, which is why this city would thrive on more "green" efforts.

An aspect I appreciate most about this city is their beloved farmer's market held each Saturday. This opportunity for residents to shop small and local is already very smart. It gives farmers from all over the greater Orlando area an opportunity to sell their produce and goods. In an effort to make this more inclusive to all, I propose developing a community garden on the public farmer's market property. This way, families and residents can contribute to the growth of urban agriculture in their own backyard while also providing them with access to healthy and affordable food. People can bring their own crops or seeds and donate their services to the community. Everyone can participate to help make the downtown area more prosperous. This also encourages citizens to engage in grassroots efforts in their own city.

In efforts to reduce water consumption and cut waste, I propose the development of "Smart Streets". Planting more trees throughout the town will generally help in many ways to produce more oxygen and reduce carbon dioxide. Additionally, more trees in the area will help to accumulate stormwater over time. The idea of developing Smart Streets also involves extending parts of the main roads, specifically for pedestrians and cyclists to promote more economical modes of transportation. Placing trees in between vehicles and humans helps to separate and protect people from road traffic. More trees throughout Winter Garden streets will inevitably help prepare for climate change by reducing soil erosion and water retention assistance. These Smart Streets will also be beneficial in helping to reduce stormwater runoff through the use of pervious pavement. This pavement technology allows water to seep through the concrete to eliminate the need for retention ponds and overall reduce stormwater management costs.

Green technology can be applied to every structure in the area, from residences to restaurants. Strict green codes in buildings can be initiated with a certificate from LEED-Leadership in Energy and Environmental Design & Neighborhood Design. This certification promotes energy efficient neighborhoods through the use of renewable electric energy like wind or solar power. Additionally, green roofing can be incorporated on major structures such as parking garages or apartment complexes. Developing green roofing has many sustainable benefits. Incorporating vegetation on rooftops allows for proper water drainage for a better release of stormwater runoff. This will also help to save energy on heating/cooling of the buildings as well as the removal of pollution particulates. Some other advances could be energy saving thermostats that can optimize the use of cool air or automatic light fixtures.

Generating sustainable electricity is essential for green codes throughout Winter Garden as well. I propose installing high/low pressure sodium lights inside each streetlight throughout the downtown area. Public lighting can be regulated to turn on or off at specific times each day to conserve energy. In addition, implementing fuel cells over time can be a step towards renewable energy sources for the whole city. Fuel cells use hydrogen from natural gas to generate heat for homes and other buildings.

Residents can get involved in grassroots efforts in their own town by helping to plant more trees around areas like the interactive fountain, the memorial park, and open parking spaces. Volunteers can also assist in the green roofing development by planting mini gardens on places like parking garages, apartment complexes, or on top of the City Hall. The Winter Garden Recreation Department will also allow for more environmentally friendly opportunities for the community to come together. Downtown Winter Garden has the potential to become entirely green, if everyone engages in more sustainable efforts.

## References

About Green Roofs. (n.d.). Retrieved from <https://greenroofs.org/about-green-roofs>

Daniels, T. L. (2019). *Environmental Planning Handbook*.

Parks & Recreation. (n.d.). Retrieved from <http://www.wintergarden-fl.gov/275/Parks-Recreation>

Pervious Concrete Pavement. (n.d.). Retrieved from <https://www.perviouspavement.org/>