

Attachment B: Rock Yards & Mulch

The City's Landscape Ordinance section 23.6-1 requires the implementation of Florida-Friendly Landscaping Principles, which are 9 science-based principles for sustainable landscapes. These principles were developed by the University of Florida's IFAS and are the foundation of the University's Florida Friendly Landscaping Program. While rock as mulch or rock yards are installed in the region by some homeowners, they are not considered to be Florida-Friendly by the University, and are discouraged for the following reasons within the City:

- Rocks increase heat on plants, especially plants' roots, which can stress plants. This heat stress causes dehydration and affects plant growth and development. (UF IFAS Extension, 2023 & Zhao, J., Lu, Z., Wang, L., & Jin, B., 2020)
- Rocks do not support Florida's wildlife, including bees, butterflies, birds and animals as the removal of trees and landscaping can result "in loss of habitat, or in habitat that does not support wildlife." (UF IFAS, 2023)
- According to the US EPA, "trees and other plants help cool the environment, making vegetation a simple and effective way to reduce urban heat islands." (US EPA, 2023)
- Xeriscape yards, which typically use rocks with very few plants or none at all, have a higher water runoff rate than yards with sod or plant material. (Simpson, T. J., and R. A. Francis. 2021)
- Even with a weed barrier, weeds will still grow and will need to be pulled or treated with herbicide.
- Leaves and other organic matter will not properly decompose, which will cause the rock to be unsightly without maintenance.

Acceptable uses of rock consistent with the UF IFAS Florida-Friendly Program:

- Smaller rocks such as pea gravel or crushed rock are great for walkways in single-family/two-family properties. Broad flat rocks like flagstone in lieu of concrete stepping stones for added attraction.
- Medium-sized rocks can be arranged to create edging around landscape beds.
- Large rocks can be used as art. Set on their own in landscape beds they make great sculptural accents.
- Placed under roof overhangs to lessen the effects of rainfall.
- Used in rain gardens or in wet, slow draining areas.

A good alternative to rockered yards is a thick layer of organic mulch planted with shrubs and groundcovers. Proper plant selection and placement will create an attractive landscape that will require minimal irrigation and maintenance.

(UF IFAS, 2023)

References:

- University of Florida IFAS Extension. (March 2023). *Florida-Friendly Landscaping Program*. <https://ffl.ifas.ufl.edu/about-ffl/>
- U.S. Environmental Protection Agency. (March 2023). *Heat Islands – Using trees and vegetation to reduce heat islands*. <https://www.epa.gov/heatislands/using-trees-and-vegetation-reduce-heat-islands>
- Simpson, T. J., and R. A. Francis. (2021). “Artificial Lawns Exhibit Increased Runoff and Decreased Water Retention Compared to Living Lawns Following Controlled Rainfall Experiments.” *Urban Forestry & Urban Greening* 63:127232. <https://doi.org/10.1016/j.ufug.2021.127232>
- Zhao, J., Lu, Z., Wang, L., & Jin, B. (2020). Plant Responses to Heat Stress: Physiology, Transcription, Noncoding RNAs, and Epigenetics. *International journal of molecular sciences*, 22(1), 117. <https://doi.org/10.3390/ijms22010117>