Landscape, Architecture, and Parking Templates for Affordable and Accessible Housing

Project by Caitlin Jacobshagen

Client:
City of Pueblo, Colorado:
Planning & Community Development

Bart Mikitowicz, Planner
bmikitowicz@pueblo.us

Chelsea Stromberg, Planner
cstromberg@pueblo.us

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EXECUTIVE SUMMARY
The City of Pueblo’s Community Commission on Housing and Homelessness (CCHH) has found that it is more difficult for developers to build affordable and accessible housing within the City of Pueblo due to local code requirements that increase development costs. This capstone project focused on reducing development costs in the City of Pueblo in order to encourage the development of affordable and accessible housing. To do this, this capstone project completed three objectives. The first was to explore the feasibility and effectiveness of providing pre-certified or non-certified landscape, architecture, and parking templates to developers to reduce their design and engineering costs. The second was to provide the City of Pueblo with policy recommendations concerning templates, ways to reduce development costs, and ways to encourage affordable and accessible housing development. The third objective was to conceptualize a potential template system by creating sample templates.

There is a need for affordable housing in the City of Pueblo. The number of families below the poverty line falls within the estimated range of the number of federally subsidized housing units in Pueblo. However, if the actual number of subsidized housing units is at the lower end of the range, there could be a shortage of about 900 affordable housing units, assuming one housing unit per family.

Pueblo is not the only community looking to encourage the development of affordable and accessible housing. There is a shortage of affordable rental units throughout Colorado. In the entire state, there is an estimated shortage of just over 114,000 rental homes that are affordable and available to extremely low-income renters (National Low Income Housing Coalition, n.d.). There are also housing shortages for people with disabilities. Many people with disabilities need housing that can accommodate wheelchairs. Such accessibility modifications tend to be more costly and hard to find (O’Byrne, Esq. & Dale, Esq., 2014).

**BACKGROUND RESEARCH**

Development regulations are important to address the goals and concerns of a community, but they may also increase the cost of development. Increases in the cost of development can make it more difficult to build affordable and accessible housing. Development review processes are an example of this. They can prolong and add costs to the development and redevelopment of housing. However, regulations are valuable because they ensure that housing developments meet certain legal standards based on the concerns and goals local residents have for their community. As such, regulations generally address issues concerning community health, safety, and wellbeing. Interviews with Pueblo city staff and staff at the Housing Authority of the City of Pueblo provided information on Pueblo’s development regulations and review process. Additional interviews with design and consulting professionals provided more generalized information about development review processes.

Data collected on housing subsidized by the U.S. Department of Housing and Urban Development (HUD) and poverty data from the American Community Survey reveals that there is a possible shortage of 900 affordable housing units in the City of Pueblo. This estimate does not take into account affordable housing that is not subsidized by HUD, or the number of families who are above the poverty line but also need affordable housing because their incomes still do not cover the average housing costs in Pueblo. The possible shortage in accessible housing in Pueblo is harder to determine due to a lack of available data on the accessibility of housing units.

The idea of creating a system of pre-certified templates available for developers to use to reduce architectural design costs and
streamline the review process is fairly new and the author did not find an example of a municipality that had done something similar. However, there are several case studies that have similarities with pre-certified template systems. These fall within four different categories: permitted accessory dwelling unit designs, modular construction, type approval, and inspirational templates.

In order for any potential parking, landscape, and architecture templates to be pre-certified or easy to certify, they will need to comply, at least in part, with local, state, and federal regulations. This includes the City of Pueblo’s local zoning and building codes and federal laws such as the Fair Housing Act. It may be beneficial to make templates that also comply with requirements that are associated with different funding sources. For example, housing that is funded at least in part by a government agency must comply with the Americans with Disabilities Act (ADA). Therefore, affordable housing developers that receive government funding will only be able to use templates that are ADA compliant.

Along with the background research, interviews with various stakeholders and subject matter experts revealed several pros and cons for pre-certified and non-certified templates. One of the most prominent issues considers the pros and cons of flexibility within templates. Pre-certified templates might not be adaptable enough to fit different contexts such as site layout and may reduce an area’s sense of place if they are used by many developers. For example, a lack of flexibility could mean a developer cannot build the maximum number of units possible on a lot (H. Parikh, personal communication, February 11, 2020). Every site has unique conditions that have the potential to make prescriptive pre-certified templates less feasible or even unusable. If, despite their lack of adaptability, pre-certified templates are used often regardless of site context, it may result in many developments throughout the city having the same aesthetic designs. On the other hand, the more customizable the templates are, the less effective they will be in reducing time or money spent on design and development review. This would defeat the purpose of pre-certified templates.

POLICY RECOMMENDATIONS

Based on the background research, the author developed four potential types of templates: Partially Pre-Certified Templates, Pre-Certified Elements, Fast, Easy to Certify Templates, and Informational Templates. The primary recommendation is to research and explore the four types of templates for affordable and accessible housing developments and choose which one(s) to implement. Three ways to further explore these types of templates include surveying developers to see which template types they would most appreciate, surveying the community of Pueblo to see how they perceive the pros and cons of each template type, and surveying city staff to see what benefits and challenges they foresee for each template type.

This project also yielded several secondary recommendations. Four of these recommendations focus on how to develop and implement a system of templates. These recommendations are to 1) use the conceptual template system in this report and collaborate with professional architects, engineers, and landscape architects to create a small-scale version of a system of templates using one or more of the template types described above, 2) analyze parcel data to discover common parcel types based on parcel size, soil type, proximity to transit, or other relevant factors and to use this analysis to inform the development of the template system and individual templates, 3) if a pre-certified template type is chosen, create several different templates for each aspect or element so developers have enough variety to choose from, and 4) implement a pilot
program that tests a small-scale system of templates to see how effective it is at reducing development costs.

Three more recommendations focus on how to encourage affordable and accessible housing development in ways unrelated to a template system. These recommendations are to 1) consider possible reductions in parking requirements for affordable housing developments and to conduct a parking study to determine if existing affordable housing developments are overparked, 2) consider the potential for reducing or waiving permitting fees or giving bonuses such as height or density bonuses to developments that include a certain number of affordable or accessible housing units, and 3) survey developers and city staff about the effectiveness and completeness of the current subdivision review process.

**TEMPLATES**

A total of 13 conceptual pre-certified element templates and informational templates are included in the full report. These include four Conceptual Pre-Certified Landscape Element Templates that can be used to inform the implementation of a system of pre-certified templates in the City of Pueblo. Also provided in this report are three Informational Architectural Design Style Templates, five Informational Landscape Site Requirement Templates, and one Informational Accessible Site Design Template. These informational templates are based on city requirements and best practices. They can be used as a resource for developers. The Informational Architectural Design Style Templates were based, in part, on information collected through interviews with architectural professionals.

The implementation of a system of pre-certified and non-certified templates would be fairly experimental and therefore come with some risks, such as development that does not relate to site context. However, the potential benefit of successfully reducing development costs and increasing the supply of affordable and accessible housing may make such risks worth it. In addition, these risks could be managed by developing a large variety of templates for developers to choose from and by implementing a pilot program to test the templates out. This project provides a foundation for the City of Pueblo to move forward with exploring and implementing a template system while managing the potential risks. The following page provides a description of four types of templates and gives an example of two of the 13 templates developed for this study.
Figure 1: Summary of Template Types

**PARTIALLY PRE-CERTIFIED TEMPLATES:**
A system of detailed templates where certain aspects, such as design, are pre-certified. During the development review process, these pre-certified aspects would not need to be considered because they’ve already been approved. It would only need to be confirmed that what was built matches the template. Other aspects of the template, such as siting, would not be pre-certified and could therefore be customized. A possible example of this is creating pre-certified architecture templates for building modules, but not pre-certifying how the modules are put together to create a modular building. This template type would work best as an architecture template.

**PRE-CERTIFIED ELEMENTS:**
A selection of pre-certified site and building elements that developers can incorporate into their design. Some example elements that could potentially be pre-certified are lighting fixtures, facade materials, and parking lot medians. Each element would be pre-certified, but how they fit into a development would not be. This template type could work as a parking, landscape, or architecture template. An aerial view of an example of a conceptual pre-certified parking island template is shown below.

**FAST, EASY TO CERTIFY TEMPLATES:**
A selection of detailed non-certified templates that are designed to be used in certain site conditions, taking into consideration characteristics like size and slope. Each template could include plans and clear instructions on how developers should modify those plans to fit their site. The review process for these plans would be fast-tracked. This type of template is largely based on the landscape templates created by the Sonoma-Marin Saving Water Partnership. This template type would work best as a landscape or architecture template.

**INFORMATIONAL TEMPLATES:**
A selection of generic templates that visually communicate to developers the requirements they need to meet as well as other available options and alternatives. These templates could illustrate requirements such as design styles and provide developers and residents with a straightforward, visual guide to parts of the zoning code. This type of template would primarily be a communication tool. This template type could work as a parking, landscape, or architecture template. An example of an informational architectural template on the Craftsman design style is shown below.
BIBLIOGRAPHY

