

**IPRO 339**  
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**IPRO 339**  
***Project Focus***

*Transition*

*Sustainability*

*Safety*

*Opportunity*

*Neighborhood*

*Integrity*

*Inspiration*

*Innovation*

*Humanity*

*Function*

*Durability*

*Culture*

*Community*

*Affordability*

*Flexibility*

**IPRO 339.      Developing Ultra-Low-Cost Sustainable Village for Working  
Poor in North Mexico from Recycled Shipping Containers**

**Overarching Principle:**

“Improve the standard of living of factory workers in Ciudad Juárez by providing safe, affordable and desirable housing.”

**Law:**

*Canon:* We will allow enough time to adequately research local laws.

*Pressure:* To complete the project within time constraints

*Risk:* To not become familiar with local laws regarding housing developments

*Risk:* To not obtain all legally required documents and permits

*Measure:* Compliance with this canon will be determined by the absence of legal actions taken against participating companies for violating local laws and regulations.

**Contracts:**

*Canon:* We will adequately allot funds so that we are not pressured to break contracts to save costs.

*Pressure:* Keep costs as low as possible in order to be more attractive to potential clients.

*Pressure:* Pressure to remain on budget with fluctuating prices of materials.

*Risk:* Cut our soft costs—labor and design costs—renege on portions of contracts.

*Measure:* Compliance with this canon will be determined by staying within our budget and positive working relationships with all involved parties.

**Professional Codes:**

*Canon:* We will ensure the safety and well being of the occupants by following all professional building codes.

*Pressure:* Try to fit as many people and amenities into one living unit as possible.

*Pressure:* Try to have an ultra high density site plan and unit configuration.

*Risk:* Compromise building codes and user safety by not providing minimum egress, clearance or circulation.

*Measure:* Compliance with this canon will be determined by an inspection of the completed development by an independent party.

**Industry Standards:**

*Canon:* We will provide comfortable living spaces that protect the inhabitants from the harsh environment.

*Pressure:* Try to lower hard costs of the unit.

*Pressure:* Try to maximize the amount of interior space available for design within the 8' wide units.

*Risk:* Not take the location and climate of the site into account and not provide adequate insulation and climate control mechanisms.

*Measure:* Compliance with this canon will be determined by team members ensuring adequate R values for insulation as well as taking into account sun angles, wind rose diagrams and local climate.

**Community:**

*Canon:* We will strive to create a sense of pride and ownership for residents of the community.

*Pressure:* To create a dense community of stripped- down units in order to bring the cost per unit down.

*Risk:* To create narrow, dark public spaces that would promote unsafe or illicit activity.

*Risk:* Create harsh industrial looking structures that are too impersonal.

*Measure:* Compliance with this canon will be indicated by lower employment turnover rates and reduction in crime.

**Personal Relationships:**

*Canon:* We will maintain respectful and selfless relationships with team members, sponsors and clients in order to deliver the best possible product.

*Pressure:* To want one's own project ideas to ultimately be used over another member's idea.

*Risk:* To not offer full support to someone else's idea.

*Risk:* To have a prideful and competitive attitude to the detriment of the final product.

*Measure:* Compliance with this canon will be determined by whole-heartedly supporting the design choices chosen by the consensus of the group.

**Moral/Spiritual Values:**

*Canon:* We will strive to provide dignity and choice to residents of the community.

*Pressure:* To cut costs by not providing sufficient amenities to each living space.

*Risk:* By assuming that the clients' are satisfied with their current lifestyles, we will not give them the option of modern living conveniences.

*Risk:* Only allowing for one type of living unit which doesn't take into account for different housing needs or desires.

*Measure:* Compliance of this canon will be determined by design groups providing multiple unit options each having standard amenities.