PREFAB
& MODULAR CONSTRUCTION
This concept utilizes a number of prefabrication ideas for a typical residential suite and showcases the opportunities for increasing the net usable floor area for the occupants. The net area gained for a typical one bedroom unit is in the range of 10 square feet. This net area is true value add to the occupant or can be used to reduce the gross constructible area of the building - resulting in a savings to the developer.

The concept incorporates the following other value added solutions:

- Quality of construction and finishes - consistent quality
- Reduced construction labour on site
- Reduced construction schedule
- Marketing advantage of more space for occupants in a unit with prefab components versus traditional build
- Repeatable units, multiple floors and multiple buildings should net a savings in construction costs

For a typical high-rise residential floor plate of approximately 8,000 square feet, the net usable area gained by these prefabrication concepts is between 110 to 120 square feet per floor.

Initial project may be more costly due to prototype costs

Acceptance by the trades and unions in the construction labour marketplace

Use of alternative partitions and special designed PREFAB components reduces typical wall thicknesses to gain usable area or reduce overall floor plate

**Value Add per Floor**

Reduce overall floor plate by +170 sf within same usable area utilizing PREFAB or gain more useable space

+170 sf per floor

**Where Area is Gained / Saved**

Use of alternative partitions and special designed PREFAB components reduces typical wall thicknesses to gain usable area or reduce overall floor plate

+10 sf per unit
10 IN 1
LESS IS MORE
LESS BUILDING MATERIAL
SPEED TO MARKET
DESIGN INNOVATION

INTELLIGENT FABRIC
PLUG AND PLAY / FRIENDLY
VENDOR NEUTRAL
DUMB BECOMES SMART
BUILDING ‘TALKS’
FIRST STEP TO ‘ONE BRAIN’

LOW VOLTAGE
SAFE
ENERGY EFFICIENT
UTILIZES LESS BUILDING MATERIAL
IOT COMPATIBLE
UNIVERSAL
FROM CORE TO FF&E
The Intelligent Structural Panel is a “10 in 1”, prefabricated / modular smart building component that integrates structure, electrical, IT, security, audio visual, key HVAC and other systems all into one building component.
Intelligent Structural Panel

In floor sensors to guide the visually impaired

Intelligent sprinkler heads connected back to ISP panel to monitor performance, control discharge location and close valves at accidental discharge locations

Radiant heat generated from the core of the panel

Wired or wireless connections to floor panels

Finished ceiling, free of clutter and surface mounted devices

Light fixtures ‘plugged’ into one of many multiple locations within the ISP panel – ‘plug and play’ installation

ISP shear wall (structural) that connects with floor panels

Finished ceiling, free of clutter and surface mounted devices

In floor sensors to guide the visually impaired

Wired or wireless connections to floor panels

+ QUASAR + C3P0E + STEPHENSON
WZMH + STEPHENSON
Intelligent Stressed Skin Panel
Thin Modular Partition