

BUILDING SYSTEM COMPARISON

TYPE	DESCRIPTION	ADVANTAGES	DISADVANTAGES
<p>DURALITE BUILDING SYSTEM Special RC Frame System with DURALITE Infill</p>	<p>Integrated RC frame with DURALITE (Wood Wool Cement Board) infill to walls and partitions with plaster finish</p>	<ul style="list-style-type: none"> - Lightweight construction - Reduction of labour - Faster construction - Lower construction costs - High thermal insulation - Easy structure convertibility (extension/renovation). - Finish similar to or better than conventional 	<ul style="list-style-type: none"> - New and unfamiliar system
<p>CONVENTIONAL SYSTEM Reinforced concrete structure with brick Infill</p>	<p>Sub & super structure formed of reinforced concrete with brickwork infill to walls and partitions with plaster finish</p>	<ul style="list-style-type: none"> - Wide acceptance - Durable and long lasting - Adaptable to most structures and architectural layouts - Fire resistance - Rot resistance - Termite resistance - Easy structure convertibility (extension/renovation). 	<ul style="list-style-type: none"> - Heavy structure required - Heavy foundation required - Labour intensive construction - Brick to column dry joint failure - High thermal transmission - High construction costs - Long construction period
<p>CONVENTIONAL SYSTEM Reinforced concrete structure with lightweight block Infill</p>	<p>Sub & super structure formed of reinforced concrete with lightweight block Infill to walls and partitions with skim coat/plaster finish</p>	<ul style="list-style-type: none"> - Lightweight construction - Slight reduction of labour - Slightly faster construction - Lower construction costs - Some thermal insulation - Easy structure convertibility (extension/renovation). - Fast to skim coat/plaster 	<ul style="list-style-type: none"> - Block to column dry joint failure - High construction cost - Long construction period - Joinery connection problems - Skim coat cracking

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<p>TUNNEL FORM C.I. RC Shear wall/floor with brick internal partitioning</p>	<p>Cast insitu reinforced concrete shear wall as external wall and party wall with brick, sand/cement brick internal partions</p>	<ul style="list-style-type: none"> - Fast to build - Lower construction costs - 	<ul style="list-style-type: none"> - Heavy foundations - Heavy lifting equipment required - High thermal transmission
<p>STUD FRAMED CONSTRUCTION Light Weight Metal Frame</p> <p>Timber Framed</p>	<p>Light weight metal stud framing with external/internal cladding</p> <p>Timber stud framing with external/internal cladding</p>	<ul style="list-style-type: none"> - Lightweight construction. - Minimal labour usage. - Faster construction. - Lower construction costs. - High thermal insulation. <ul style="list-style-type: none"> - Lightweight construction. - Minimal labour usage. - Faster construction. - Lower construction costs. - High thermal insulation. 	<ul style="list-style-type: none"> - Hollow sounding walls - Joints cracking: <ul style="list-style-type: none"> • Insects nesting in cavity • Water seepage & ingress - Easy to break into the building <ul style="list-style-type: none"> - Frame attack by termites - Non fire resistance - Hollow sounding walls - Joints cracking: <ul style="list-style-type: none"> • Insects nesting in cavity • Water seepage & ingress - Easy to break into the building
<p>PREFAB TYPE SYSTEMS Honey-comb Composite</p> <p>Reinforced Expanded Poly Styrene</p>	<p>Cardboard honey-comb core between mineral bonded panels</p> <p>Wire mesh reinforced EPS finished with structural plaster layer</p>	<ul style="list-style-type: none"> - Lightweight construction. - Minimal labour usage. - Faster construction. - Lower construction costs. - High thermal insulation. <ul style="list-style-type: none"> - Lightweight construction. - Minimal labour usage. - Faster construction. - Lower construction costs. - High thermal insulation. 	<ul style="list-style-type: none"> - Non fire resistance - Non conventional appearance - Joints cracking: <ul style="list-style-type: none"> • Insects nesting in honey- combs. • Water seepage and ingress - Hollow sounding walls <ul style="list-style-type: none"> - Non fire resistance - Joints cracking: <ul style="list-style-type: none"> • Insects eating & nesting in EPS. • Water seepage and ingress - Unable to demolish walls for extension/renovation.