

2020

Modular Building Specifications

Education: Classrooms & Training / Daycare: Classrooms & Nursery
Business: Office & Administrative / Assembly: Worship & Conference
Health Care: Clinics & Medical

Modular Building Specifications:

Base
Mid-Grade
Premium
Elite

2015 International Building Code:

Chapter 3 Use and Occupancy Classification – edited and summarized

The following types of buildings are able to be built off site and assembled on site utilizing modular construction.

		Base	Mid-Grade	Premium	Elite
A - Assembly	A-2 Banquet Halls, Casinos, Nightclubs, Restaurants, Cafeterias A-3 Community Halls, Funeral Parlors, Libraries, Places of Worship, Pool and billiard parlors, Waiting areas in transportation terminals	x	x	x	x
B - Business	Office, Professional or service-type transactions, including storage of records and account, Airport traffic control towers, Ambulatory care facilities, Animal hospitals, Banks, Barber and beauty shops, Civic administration, Clinic, Outpatient, Electronic data processing, Food processing, Laboratories, Post Offices, Print shops, Professional services, Radio and television stations, Training and skill development facilities.	x	x	x	x
E - Education	Classrooms, Daycares over 2 ½ years of age	x	x	x	x
I - Institutional	I-1 Alcohol and drug centers, Assisted Living facilities, Congregate care facilities, Group houses, Halfway houses, Residential board and care facilities, social rehabilitation facilities. I-2 Foster care facilities, Detoxification facilities, Hospitals, Nursing Homes, Psychiatric hospitals. I-3 Correctional centers, Detention centers, Jails, Prerelease centers, Prisons, Reformatories. I-4 Adult day Care, Child day care 2 ½ years or less.	Type-II Non-Combustible Contact Us to Discuss			
R - Residential	R-1 (transient) Boarding houses Congregate living families, Hotels, Motels. R-2 Dormitories, Live/Work units.	x	x	x	x

Construction Type:

		Base	Mid-Grade	Premium	Elite
II - Non-Combustible		Contact Us to Discuss			
VB - Wood		x	x	x	x

Floor:

		Base	Mid-Grade	Premium	Elite
Frame	12" Outrigger Frame w/Cross members	x			
	12" Perimeter Steel Main Beams		x		
	12" Perimeter Steel Main Beam "Direct Deck"			x	x
Bottom	1 Mil Cross-woven polypropylene fabric under flooring	x	x	x	x
Insulation	Un-faced Fiberglas (thickness per code)	x	x	x	x
Joists	2 x 8 @ 16" On Center Longitudinal	x	x	x	
Decking	Single layer 3/4" T&G OSB underlayment	x	x		
	Double layer 3/4" T&G OSB underlayment			x	x
	Fortacrete structural panels are high strength reinforced cement panels			x	x
Finish	1/8" Vinyl tile (12" x 12"), (Armstrong)	x	x		
	26oz Commercial carpet	x	x	x	x
	Knight Premium Flooring quartz			x	x
	Ceramic Tile			x	x

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Exterior and Interior Walls:					
Studs	2 x 4 or 2 x 6 #2 SPF @ 16" On Center, single top plate & single bottom plate	x	x		
	6" x 18ga Steel studs @ 16" On Center & 6" x 18ga Steel track			x	x
Interior	1/2" Gypsum	x	x		
	5/8" Type X Fire Rated Gypsum			x	x
Covering	Vinyl Covered Wall Paper applied to the gypsum	x	x		
	Mud Tape and Paint			x	x
Insulation	Krafted Fiberglas (thickness per code)	x	x	x	x
Structural Sheathing	7/16" OSB	x	x		
	5/8" Dens-glass			x	x
Moisture Sheathing	Building wrap	x	x	x	x
Exterior Siding	Aluminun.019 Textured or Flat Panels	x			
	Smart Panel: Engineered Wood Product in 8" groove panels		x		
	Vinyl: Different size lap and textures available		x		
	Hardi Panel 8" groove / Flat / or stucco		x		
	Duratemp: Genuine plywood veneer interior core and hardboard face		x		
	Steel: 26 gauge High rib steel siding and trim in various profiles			x	
	Hardie Reveal Panel with design flexibility and high end aesthetic			x	
	EFIS				x
Interior Trim:					
Base	Vinyl Covered Batten Strip	x			
	4" Vinyl cove base throughout, 6" Vinyl cove base in bathroom		x		
Corner	Vinyl covered battens	x	x	x	x
	Mud Tape and Paint				
Ceiling Wall	Vinyl covered battens	x	x	x	x
	"White" Suspended ceiling wall angle for T-Grid ceiling				

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Roof:					
Mate Line	(1) Layer 1-1/2", 2.0 LVL (Max span 30'-0" typical)	x	x		
	Steel Truss clear span (Max span 60' 0" typical)			x	x
Rafters	2 x 8 or 2 x 10 Roof rafters @ 16" oc spacing with ledge to LVL or roof truss	x	x		
	18 ga x 8" Steel roof rafters @ 16" oc spacing bolted to truss			x	x
Insulation	Un-faced Fiberglas (thickness per code)	x	x		
	Un-faced Fiberglass Batts w/2" Rigid foam roof grade board			x	x
Sheathing	7/16" OSB w/ 1/4" Dens Deck Or 7/16 Mule-Hide FR Deck	x	x		
	5/8" Fire treated plywood sheathing w/ 1/4" Dens Deck			x	x
Roofing	.045 EPDM Rubber roof (black)	x			
	.060 EPDM Rubber roof (white)		x		
	.090 EPDM Rubber roof (white)			x	x
	Shingles			x	x
	Steel: 26 gauge High rib steel siding and trim in various profiles			x	x
Gutters	Aluminum J-Rail along length with site install Aluminum Gutters		x	x	x
Ceiling	1/2" Textured Gypsum Sea Spray Ceiling Board	x			
	2x4 Acoustic suspending ceiling		x	x	x
Grid	Donn DX Ceiling Grid - USG		x	x	x
Windows:					
Type	2/0 x 3/0 – Bronze aluminum framed single hung vertical sliding	x			
	3/0 x 4/0 - "White" vinyl framed single hung vertical slider, w/Fiberglass insect screens		x		
Glazing	"LOW E" double insulated glass	x	x	x	x
Trim	Vinyl covered wood return & casing	x	x	x	x
	Wood Painted return & casing				
Blinds	1" Vinyl mini blinds	x	x	x	x

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Interior Doors:

		Base	Mid-Grade	Premium	Elite
Size / Type	3/0 x 6/8 Hollow core pre-finished wood grain	x			
	3/0 x 6/8 Solid core pre-finished wood grain		x	x	x
Frame	Wood Prefinished Jamb	x			
	Steel Painted Jamb		x	x	x
Hinges & Door Trim	Standard	x			
	Upgraded		x	x	x
Levers	Lever set – Grade 2	x	x		
	Lever set – Grade 1			x	x

Exterior Doors:

		Base	Mid-Grade	Premium	Elite
Size / Type	3/0 x 6/8 - Pre-hung 20ga Commercial steel door w/18ga steel frame 5" x 20" Vision Panels	x	x		
Size / Type	6/0 x 6/8 – Bronze Aluminum Frame Commercial Glass Doors		x	x	x
Hinges & Door	Standard	x			
Trim	Upgraded		x	x	x
Closer	Door Closer, Tell #12641 (Grade 2) or equal	x	x	x	x
Panic Bar	Panic hardware, Tell #8300BE (Grade 2) or equal		x	x	x
Levers	Lever set – Grade 2	x	x		
	Lever set – Grade 1			x	x

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HVAC:					
Equipment / Wall Mount	Bard - THE WALL-MOUNT™ AIR CONDITIONERS (50HZ) GREEN REFRIGERANT R-410A Models W24A to W70A 21,200 Btuh (6.21 KW) – 59,000 Btuh (17.28 KW) Right Side Control Panel 50Hz	x			
Equipment / Wall Mount	Bard - The Wall-Mount™ Variable Capacity Environmental Control Units GREEN REFRIGERANT R-410A The Bard Variable Capacity ECU design is a world-class machine designed to operate from - 40F to +131F (-40C to +55C) outdoor temperature range.	x	x	x	x
Equipment / Wall Mount	Gas / Electric - 36,000 BTU (3 Ton) Roof top mounted HVAC units w/12kw				
Equipment / Wall Mount	Gas / Electric – Two – Stage Air Conditioner	x	x	x	x
Supply / Return	F/G in ceiling w/24" x 24" adjustable diffusers	x	x	x	x
Exhaust	150-cfm exhaust fan (Can be as low as 70 cfm)	x	x	x	x
Thermostat	7-Day Programmable heat/cool	x	x	x	x

Plumbing:					
Supply	PVC pipe & fittings	x	x		
Supply	Type 'L' copper pipe & fittings			x	x
Waste	Schedule 40 PVC pipe & fittings Or Cast Iron no hub	x	x	x	x
Lavatory	ADA Accessible wall hung china	x	x	x	x
Faucet	Single Control Lavatory Faucet Extra Long Metal Lever Handle	x	x		
Faucet	Electronic Faucet – Brass Construction			x	x
Toilet	Low Consumption Elongated Bowl ADA Compliant	x	x	x	x
Toilet	Low Consumption Child Height Bowl – Day Cares	x	x	x	x
Urinal	Low Consumption Vitreous China		x	x	x
Urinal	Zero Water – Zero Flush			x	x
Bar Sink	15" x 15" Stainless steel coffee bar sink w/8" gooseneck faucet		x		
Kitchen Sink	24" x 24" Fiberglass service sink w/8" swivel faucet		x	x	x
Water Cooler	Wall-mounted bi-level water cooler with softly rounded corners and edges		x	x	x
Water Heater	Single point complaint hand washing heater per sink	x			
Water Heater	Tank type w/plastic water heater pan - Compact		x	x	x
Water Heater	Tank type w/plastic water heater pan - Standard		x	x	x

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Restroom Accessories:					
TP Holder	Single roll toilet paper holder	x	x	x	
Soap	Surface Mounted Soap Dispenser		x	x	x
Paper Towel	Surface Mounted Paper Towel Dispenser		x	x	x
Mirror	18" x 30" Framed Mirror	x	x	x	x
Grab Bar	Stainless steel grab bar, Sized per accessibility code	x	x	x	x
Urinal screen	Wall mounted enameled steel urinal screen		x	x	x
Partitions	Enameled steel modesty partitions		x	x	x
Service	120/240V Single phase / 3 Wire (AB Phase with neutral)	x			
	120/208V Three phase / 4 Wire (ABC Phase with neutral)		x	x	x
Panel	Various brands. Each module has (1) sub-panel 100-150 amp single phase typical	x	x	x	x
Lights	5.625 W x 48 L x 3.187 D surface mounted	x			
Lights	2 x 4 Four-tube grid mounted fluorescent lights w/T-8 lamps or LED fixtures		x	x	x
Raceway	Romex / MC cable, Per NEC Code (#12 AWG Minimum)	x	x	x	x
Receptacles	120V/15A Duplex "White" & GFI near plumbing and at HVAC	x	x	x	x
Switch	120V/15A "White" Toggle switch, as needed (Dual switched per IECC)	x	x	x	x
Sensor / Wall	Wall Mounted occupancy sensor		x	x	x
Sensor / Ceiling	Ceiling mounted occupancy sensor		x	x	x
Exit / Light	Rustproof Vandal-Resistant Wall/Ceiling Luminaire	x	x	x	x
Emergency	Dual head exit/emergency light w/ 90 Minute battery backup	x	x	x	x
Voice / Data / Security	Locations w/Single gang boxes and 1/2" flexible conduit above ceiling for equipment to be installed on site	x	x	x	x
Fire Alarm	Locations w/Single gang metal boxes and 1/2" EMT conduit to above ceiling for equipment	x	x	x	x
Kitchen Furniture:					
Countertop	7'-0" x 25" deep laminate w/4" backsplash		x	x	x
Cabinets	Light medium oak 42" Sink base cabinet - 42" Base and Wall cabinet		x	x	x
Clarifications:					
	The specific geographic region and occupancy of the building may require a variance of these specifications.	x	x	x	x
	These specifications "or equal" are typically used by Modular Genius Inc. and are used as the bases for the proposal and floor plans below.				
	Education – Classrooms / Training Daycare – Classrooms / Nursery Business – Office / Administrative Assembly – Worship / Conference Health Care – Clinics / Medical	x	x	x	x