

COMPETENCY AREA	USER INTERFACE	
Category	Matrix #	Knowledge
Startup Options	100	Familiar with interface and use
Menus		Familiar with Menu organization
		Knowledge of info available in menus
		Awareness of tool families (submenus)
		Paste - Special Functions
Toolbars		Familiar with parent-child buttons
		Familiar with drop-down tools
		Understand what a toolbar configuration is
		Know how configs can affect work flow
		Ability to customize toolbars
		Edit toolbar changes based on object
Checks		Plan Check Use
		Spell Check Use
Templates		How to change default template
		How to create a new template
		Saving and using custom templates
File Management		Save and Retrieve Plans
		Knowledge of the Chief folder paths
		Data folder path and contents
		Effective Folder Structure for plans and layouts
Reset To Defaults		Understanding of scope and use
Delete Objects		Understanding of scope and use
Preferences		Understanding that Preferences are global
		Appearance
		Contextual Menus disabled effect
		Toolbars - ability to change from dropdown
		Colors
		Adjust colors to enhance interface
		Font
		Library Browser
		Text and page setup
		General
		Folders
		New plans
		Layers
		Unit conversions
		Time Tracker
		Architectural
		Select Room Before Wall in 3D effect
		Edit
		Marquee select differences
		Cross Hair Settings
		Behaviors
		Snap Properties
		material list
	Report Style	
	Master list	
	Categories	
	Render	
	Reset Options	
View and Zoom Tools		Use of Zoom Tools and scroll wheel
		How to Pan the display
		Swapping views
		Tiling Windows
		Aerial view
		Closing active windows
		Default Behavior

Edit Behaviors	Alternate Behavior
	Move
	Resize
	Concentric
	Fillet
	Edit Object Parts
	Rotate / Resize about Current Point
Selecting Objects	How To click on an object to select
	Shift click, ctrl click and shift click drag
	ctrl + A to select all
	Select Next Object
	Edit Area
Snap Settings	Select Same Type
	Object Snaps
	Angle Snaps
	Grid Snaps
	Bumping / Pushing
Special Use Tools	Extensions
	Plans Database
Help	Time Tracker
	Familiar with Contents and Use

COMPETENCY AREA DEFAULT SETTINGS

Category	Matrix #	Knowledge
General	200	Understanding Defaults are plan specific
Dynamic Defaults		Understanding what object specifications are affected
Floor Defaults		Understanding use and availability
Plan Defaults		General Settings
		Grid Settings
		Allowed Angles

COMPETENCY AREA LIBRARY/PROJECT BROWSER

Category	Matrix #	Knowledge
Library Browser	300	
		Adding Library Objects
		Adding Materials, images and Plant images
		Managing User Library
		Library Search
		Adding new libraries
Project Browser		Copying items to new libraries
		Locating Saved Items in Project Browser
Symbol Importing		Symbol Assistant and Import 3D Symbol
Library Preferences		Reset Library Browser Settings
		Adjusting appearance and placement
Special Use Tools		Color Chooser
		Images (Build Menu)
		pasting images as backdrop, image, material, or picture
		Plant Chooser
	Material Painter - Modes	

COMPETENCY AREA WALLS

Category	Matrix #	Knowledge
Wall Defaults	400	Resize about
		Show Wall length when editing
		Auto Rebuild attic walls
		Default wall type thicknesses
		Selecting default interior and exterior wall types
		Default thickness for fence, railing, wood frame and invisible walls
	Selecting default pony wall components	

	setting pony wall alignment
	Height of lower pony wall
	showing lower pony wall in plan
Wall Specifications	Adjusting wall angle and length
	specifying a wall as foundation or railing
	effects of selecting various Options
	double wall options
	specifying radius of curved walls
	adding wall coverings
	adjusting materials
Wall Types	Defining Wall Types
	Editing Wall types
	Creating New Wall Types
	Main Layer
	Dimension To
	Alignment of pony walls
	Insert and delete layers
	Build platform to
Wall Editing	Edit in 3D
	Wall Edit tools
	Change line/arc
	Reverse Layers
	Connect Walls
	Input Wall length
	Continuous Wall Drawing
	Make arc tangent
	Positioning with dimensions
	Hatch Wall
	Edit handles
	Same wall type
Special Walls	Curved Walls
	Pony Walls
	Railings
	Attic Walls
	Room Dividers / Invisible Walls
Trim Tools	Corner boards
	Quoins
	Molding line and molding polyline
	3D molding line and 3D molding polyline

COMPETENCY AREA		WINDOWS / DOORS	
Category	Matrix #	Knowledge	
Door Defaults and Specification	500	Editing Style, appearance and shape	
		door types	
		Door library	
		opening indicators	
		swing and handing	
		Double Wall options	
		Radial Casing	
	Labels		
Window Defaults and Specification		Editing Style, appearance and shape	
		window types	
		window library	
		opening indicators	
		Double Wall options	
		Default Level - level	
		Radial and parallel Casing	
	Labels		
Special Applications		Bay-bow-box Windows	
		Corner windows - ignore casing	
		pass-through / niche	
Placing		Moving Using Dimensions	
		Centering on Object	

Editing	Custom Muntins
	Mulled Units
	Automatic
	Manual
	Select Same Type
	Replace from Library
	Add to library

COMPETENCY AREA	CABINETS
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Category	Matrix #	Knowledge
Cabinet defaults and specifications	600	Editing Style, Components, Shape and Materials
		Special (Cabinet Types)
		Cabinet Library
		Cabinet Labels
Cabinet Tools		Base Cabinet
		Wall Cabinets
		Full Height Cabinets
		Soffits
		Shelves
		Partitions
		Custom Countertops
		Holes in Custom Countertops
Adding Library Objects to Cabinets		Appliances
		Plumbing
		Lighting

COMPETENCY AREA	ROOMS
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Category	Matrix #	Knowledge
Material Defaults and Materials	700	Settings and effect
Room Definition		Settings and effect
		Room Types
		Floor and Ceiling height
		Room labels - area vs. dimension
		No Ceiling
		Tray Ceilings
		Room polylines
		Floor Structure
		Moldings
		Wall Coverings
Polygon shaped room		creating different sized and shaped polygon rooms
Stair Specification and settings		Adjusting riser height
		winders
		Adjusting appearance and structure (Style tab)
		Adjusting balusters and newels (Newels/Balusters Tab)
Stair Editing Tools		Changing handrail profile
		creating automatic stairwell
		manually created stairwell
		flaring stairs
		adding starter treads
		Walk line and subsection boundaries
Stair Tools		room underneath a stair
		curved stairs
		one click
		manually curving
		wrapped stairs
		click stairs
		adding landings - locked / unlocked
		Custom shaped landings
Space Planning		stair sections
		Ability to use the Space Planner Assistant
Fireplaces		Use of room boxes
		In Wall
		Freestanding

		Library
COMPETENCY AREA		FOUNDATIONS
Category	Matrix #	Knowledge
Foundation Defaults	800	Settings and effect
		Derive from first floor
		stem wall with footing
		Monolithic Slab
		Piers
		Drawing manually
		Stem wall and footing alignment
		Room specification effects on foundations
		slabs and slab tools
		editing piers and pads
COMPETENCY AREA		DIMENSIONS
Category	Matrix #	Knowledge
Dimension Defaults	900	"Show" setting effects
		Inaccurate Dimension uses
		Height and sizing
		Reach and Separation settings
		Locate Object Settings
		Extension Settings
Manual Dimension Tools		Font and Layer Settings
		Manual Dimension
		End To End Dimension
		Angular Dimension
		Interior Dimension
		Point to Point Dimension
		Baseline Dimension
		Running Dimensions
Automatic Dimension Tools		Centerline Dimension
		Auto Exterior Dimensions
		Auto Interior Dimensions
		NKBA Auto Dimensions
		Auto Elevation Dimensions
		NKBA Auto Elevation Dimensions
Temporary Dimensions		Auto Story Pole Dimensions
		Displaying
		Setting Preferences
COMPETENCY AREA		FRAMING
Category	Matrix #	Knowledge
Framing Defaults	1000	Sub floor structure
		lap or butt
		Blocking / bridging
		Use Framing reference
		Use Wall Framing Material
		Build wall framing details from exterior
		Top Plates / Bottom Plates
		Mitre ends of angled walls
		Trimmers
		Header sizes
		Post and Beam defaults
		Roof material and structure settings
		Angled dormer hole
		Defining Trusses
		Rafter
		Truss
		Kingpost
		End Truss
		Drop hip truss
		Energy Heel
		Reduce Gable
		Attic Truss
	Sloping Flat Truss	

Manual Framing tools	Force Rebuild
	Lock truss envelope
	No special snapping
	Roof Beam
	Joists
	Floor/Ceiling Truss
	Floor/Ceiling Beam
	Post with footing - without footing
	Framing reference marker
	Bearing line
	Joist direction line
	Framing Tool (CAD Box tools)
	Wall Bridging tool
	Cross Block and insulation detail tools
Editing Framing	Wall detail and editing members
	Mitering ends with filet tool
	Effect of retain framing setting
	Editing framing members in 3D
	Extend, trim and make fence

COMPETENCY AREA MULTIPLE FLOORS

Category	Matrix #	Knowledge
Floor Defaults and adding Floors	1100	Setting Default for subsequent floors
		Adding floors
		inserting floors
		exchanging floors
		deleting floors
		copying floors to another floor
		Reference display

COMPETENCY AREA DECKS

Category	Matrix #	Knowledge
Deck Specifications and settings	1200	Deck Railings
		Deck Edges
		Deck Planking
		Deck Joists
		Deck Support
		Polygon shaped decks
		Multi Level

COMPETENCY AREA ROOFS

Category	Matrix #	Knowledge
Build Roof Settings and Options	1300	Roof Layers
		Make roof baseline polylines
		Ridge Caps
		allow low roof planes
		Auto rebuild roofs
		Use existing Roof Baselines
		retain manually drawn roof plane
		retain edited automatic roof planes
		ignore top floor
		trusses (no birdsmouth)
		Raise/Lower from Ceiling Height
		Same roof height at exterior walls
		Same height eaves
		Segment angle at curved wall
		Minimum alcove
		Rafter Tails
		Boxed Eaves
	Roof Plane Settings	
		Curved Roofs
		Baseline Angle
		Display one floor up/down
		Locating roof plane intersections
		Editing Roof Baseline polylines

Setting Roof Directives in walls	Roof Options
	Pitch Options
	Roof Returns
	second pitch for upper roof plane
	Lower wall type if split by butting roof
Roof Tools	manually drawn roof plane
	manually drawn ceiling planes
	Truss base
	Gable roof line
	join roof planes
	move to be coplanar
	break line
	Transform replicate
	skylights
roof hole	
Gable over door or window	
Dormer Defaults and Dormers	Auto Floating Dormer vs. Auto Dormer
	Manually drawn dormer

COMPETENCY AREA	CAD TOOLS
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Category	Matrix #	Knowledge
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CAD Defaults	1400	Line length and angle display format
		Show arc centers and ends
		Fill framing members
		use line for framing

CAD Tools		Points -Input point - delete temp points
		Lines - input line - with arrow - Sun angle - north pointer
		Continuous line drawing
		drawing by entering coordinates
		Input CAD Line, End point location - Start Point and Num Style
		Arcs - with arrow, input arc
		Arc creation modes
		Input Arc,Direction, Radius, Extension and Num Style
		Circle - Oval - Ellipse
		Boxes/Framing
		Spline
		Plan Footprint
		Autodetail
		CAD Block Management
	CAD Detail Management	
	CAD detail from view	
	CAD to walls	

CAD edit tools		Copy/Paste
		Sticky Mode
		Reflect About Object
		Copy/Paste in place
		Transform Replicate
		Multiple copy
		Setting Primary and secondary offset
		Evenly distribute copies
		Accurate Move
		Make Parallel
		Selected edge or entire polyline
		Point to point move
		Add to library
		Center Object
		Reflect about object
		Move To Front of Group
		Break Line
		Single Click vs double click
		Trim Objects
		Extend Objects
		Convert to Spline
		Polyline Union, Intersection and Subtraction
		Convert Polyline
		Change Line/Arc
		Make Fence
		Record Walkthrough Along Path
		Fillet Two Lines
	Setting Radius	

	Chamfer line
	Convert Curve to Polyline
	Convert Spline to Polyline
	Advanced Splines
	Coordinate System
CAD Object Specification	Line Style
	Layer
	Line Color
	Line Style
	Line Weight
	Drawing Group
	Bumping
	Display options
	Arrow
	Fill Style
	Custom Patterns
	Polyline Information
	Points
	Sun Angle / North Pointer
	Spline - New Segment Angle
Text Defaults and specification settings	Text size and scaling
	Inserting a text macro
	rotate text with plan
	preview appearance
	Tabs - box - grid
	Alignment
	Sizing bounding box
	bounding box margins
	Creating Hyperlinks
	Spell check
Text Tools	Text Line with arrow
	Leader Line
	Callouts
	label
	Options
	Markers
	text
	Marker Types
Pasting Text and tables From other applications	
Snaps	Object Snaps
	Angle Snaps
	Grid Snaps
	Bumping / Pushing
	Extensions
COMPETENCY AREA	TERRAIN
Category	Matrix # Knowledge
Terrain Perimeter	15800 creating automatically and manually Terrain Specifications
Road, Sidewalk and Driveway	Settings and effect
Terrain Tools	Building and clearing Terrain
	Elevation data
	Terrain Modifiers
	Terrain Features
	Garden Beds
	Water Features
	Stepping Stones
	Walls and Curbs
	Roads and Sidewalks
	Plants
Sprinklers	
COMPETENCY AREA	CAMERAS AND 3D SETTINGS
Category	Matrix # Knowledge
Camera Defaults	1600 Settings and effect

3D Settings	General Options
	Render view options
	Vector view options
	Backdrops
Orthographic View Tools	Full and Floor Camera
	Overview Cameras
	Cross Section and Elevation Cameras
	Framing Overview
Perspective View Tools	Full and Floor Cameras
	Overview Cameras
	Render View Options
	Adjusting Lighting
	Ray trace view settings
Camera Navigation tools	Mouse, Keyboard and slider tools
	Walkthrough along Path

COMPETENCY AREA	LAYERS / LAYER SETS
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Category	Matrix #	Knowledge
Layer Set Defaults and Management	1700	Layer Set Defaults
		Active layer set control
		Layer set management
		Layer Display Options
		Export / Import layer sets
		Layer Painter
		Active CAD Layer
		Creating New layers and layer sets
	Annotation Sets	

COMPETENCY AREA	LAYOUT
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Category	Matrix #	Knowledge
Layout Templates	1800	Creating Layout Template
Layout Tools		Navigation In layout
		Modifying layout pages
		Managing Layout Files
Sending Views To Layout		Scaling
		View and layer set options
		Sending Camera Views
Editing Layouts		Project Information
		Using CAD and Text in Layout

COMPETENCY AREA	PRINTING
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Category	Matrix #	Knowledge
Page Setup	1900	printer paper and drawing sheet relationship
		default printer setup
		correct drawing scale - layout vs. plan
		line weight scaling function
		Changing and config of printers
		create custom drawing sheet
Scale to fit		Scaling a drawing to fit on specific sheet
Center Sheet		centering a drawing on a specific sheet
Print Preview		using print preview
Print Dialog		using print range
		using scaling
		using check plot
		printing an image
		printing a model

COMPETENCY AREA	ELECTRICAL
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Category	Matrix #	Knowledge
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Electrical Defaults	2000	Setting Default items for each tool/location
Electrical Tools		Outlets
		Lights
		Switches
		Electrical Connections
		Auto Place Outlets
Electrical Library		Editing Symbol Data
		Creating and editing 2D blocks
		Editing Stretch Zones
		Editing Component Information

COMPETENCY AREA	IMPORT / EXPORT	
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Category	Matrix #	Knowledge
Import	2100	Drawing
		Selecting file, objects, CAD blocks and Hatch entities
		Selecting layers to import
		Mapping layers
		Drawing unit
		Unit conversions (Preferences)
		Pictures, Metafiles and Backdrops
		Room Planner files
		Wall Definitions
		Line Style Definitions
		Layer Sets
		Terrain Data
		GPS Data
		Hotkeys
	Annotation Sets	
	Default Settings	
Exporting		Entire Plan
		Current View
		All Floors
		3D Model - DWG, DXF, 3DS, STL, DAE
		REScheck
		VRML
		Pictures, Metafiles
		Wall Definitions
		Layer Sets
		Hotkeys
		Annotation Sets
Special Use Tools		Screen Capture - 3D views
		Copy Region as Picture - 2D views

COMPETENCY AREA	MATERIALS LIST	
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Category	Matrix #	Knowledge
Material List Types	2200	Calculate from all floors
		Calculate from Area
		Calculate From Room
		Materials Polyline
Material List Tools		Update To Master
		Update From Master
		Export Material List
Schedule Defaults		Setup columns and objects to include
		Labels

COMPETENCY AREA	TROUBLESHOOTING USER ERRORS	
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Category	Matrix #	Knowledge
Walls	2300	Main layer effect on framing
CAD Blocks		X Y Scaling
Windows/doors		Changing the Default level effect
CAD		Layer effect on lines in a polyline
