

PRINCIPLES OF FURNITURE AND JOINERY DESIGN

**Coursework 4**

**Plan, Design and Cost of a Kitchen to suit floor plan**

**Cillian Kinahan**

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## Introduction

On completion of visiting several kitchen workshops and suppliers, I gained a better insight into present kitchen designs from mass produced kitchens to bespoke designs. From viewing these kitchens and on close inspection I could visualise the thought and detail that goes into designing and manufacturing a kitchen and the abilities that some designers have to create a design to not only meet the specifications of the client but also their budget. Although I carried out these visits I still went and researched kitchen designs on the web. To me this was very beneficial as it gave me a better understanding to other kitchen designs and layouts which I did not get to observe while undertaking my visits.

After completing my research I had to narrow down my design ideas to what I wanted to base my kitchen around. With many different styles and designs to choose from, I chose to base my kitchen on a contemporary style with some traditional style contained within. While researching I observed that many kitchens followed in the same colour scheme with units been made from pine with cream walls, or units been an off white with the room been warmer colours such as reds and browns. I aimed for mine to be different trying to keep it cool and natural in colour. To achieve this I finished with my walls and floor as a grey colour and my units off white in colour topped with a black worktop I also chose to keep the roof, windows, door and mouldings white to help make the overall finish of the kitchen attractive. While most of the cabinet doors in my kitchen were solid I did add a number of them which contained glass. By doing this I thought these doors would reflect light around the room making it brighter while also showing off items within the presses e.g. fine china and other decorative pieces. By doing this colour scheme I felt made the kitchen stand out with the black and white contrast working with each other and standing out off the grey surroundings. I also felt it made the room more spacious which I wanted due to the small dimension specifications of the room. I also placed my kitchen on two wall rather than 3 or 4 as I did not want the units spaced out over the entire room where on entry feels very enclosed and not a lot of space for movement.

There was many factors which I had to consider when designing my kitchen, these fall under the following headings;

### Working Triangle

The working triangle was very important when designing my kitchen and had to be thought out before doing any design. Having a good working triangle means the movement through the kitchen is done with ease. On wall "A" I placed my sink clearly due to the fact this was where my waste pipe was situated. I also placed the dish washer next to this for ease when washing up so items can be loaded from the sink to the dishwasher without travelling a great distance. It also helped here as I could connect my waste pipe from the dishwasher into the same waste for my sink. On the same wall I placed my fridge. I chose to put this in the corner where it was out of the way from any heat source and covered in on two sides by external walls meaning it will always remain cold. For my hob and cooker I chose to place them on wall "B" toward the end. This was clearly so grease and dirt when cooking was kept to the one area of the kitchen, it also meant that other people within the kitchen had room to work in and would not be interfered with when preparing food or doing cleaning. I feel this is a clear working triangle as it is laid out neatly efficiently and in no way is effected with obstructions such as tables and islands. On wall "D" I had a window so to make use of this I chose to place a breakfast bar, this I feel was important as it added a feature to the room which can be used for a decorative piece or also a seating area when having meals.

### Style

I wanted the style of my kitchen to be eye catching but yet not to pronounced to turn people away from been in it. I feel with the colours I chose to use and the layout of the units I will achieve this. I did not want a kitchen that was too common so I tried to keep things simple and add details were possible. I feel by adding the seating area people will sit in the room rather and entering the room doing what they have to do then leave. It may seem cold on appearance but if kitted out with bright items e.g. delft, flowers, appliances, seats etc. the room would be rather inviting.

### Complexity

With this design I could have been as creative as I wanted to be. I did not want to create a kitchen to wild where bright colours were present or stacks of presses were in place. I chose to keep things simple but yet attractive which I feel works best. A steady flow of units on two walls I feel is all that was needed in this room anymore and the room may become crowded and darkened. For my units I kept everything simple I wanted everything to flow with one another where one piece complements another this is important due to a lot of time been spent in a kitchen.

### Manufacturing Process

The manufacturing process of this kitchen would be rather simple due to its simplicity of detail and layout and due to the fact of where it will be purchased. As this is an Ikea kitchen, instructions will be attached to all individual carcasses meaning step by step instructions of assembly. Placing the units in place is also quite easy as all units are attached to a rail which is firstly attached to the wall and then the units mounted to them.

### Material Cost

The material cost for this kitchen I feel is of a nice figure. To receive all materials and appliances needed for this kitchen at a price of under € 7000 is quite good. If working with a customer and they give you a bigger budget you could advance with the design using nicer layouts and materials and appliances.

I carried out my research for my kitchen in Ikea.

**Items Required**

	Unit No	Base Units	Carcase Size
No			<b>W X D X H(mm)</b>
<b>1</b>	1	METOD High Cabinet for Fridge/Oven (white)	600 x 600 x 2000
<b>4</b>	2-7-10-12	METOD Base Cabinet Frame (White)	600 x 600 x 800
<b>3</b>	3-4-11	METOD Base Cabinet For Dishwasher/Oven/Sink (white)	600 x 600 x 800
<b>2</b>	5-9	METOD Base Cabinet Frame (White)	400 x 600 x 800
<b>1</b>	6	METOD Base Cabinet Frame (White)	1280 x 680 x 800
<b>1</b>	8	METOD Base Cabinet Frame (White)	800 x 600 x 800

	Unit No	Wall Units	Carcase Size
No			<b>W X D X H (mm)</b>
<b>4</b>	13-14-16-17	METOD Wall Cabinet Frame (White)	800 x 370 x 800
<b>1</b>	15	METOD Wall Cabinet Frame (White)	200 x 370 x 800
<b>1</b>	18	METOD Wall Cabinet Frame (White)	400 x 370 x 800

	Unit No.	Base Unit Doors	Dimensions	Style/Material
No.			<b>W X H (mm)</b>	
<b>1</b>	1	High Cabinet	600 x 1200	Bodbyn 18mm

		Door		MDF
<b>2</b>	1-6	Base Cabinet Door	600 x 800	Bodbyn 18mm MDF
<b>10</b>	2-3-7-10-12	Base Cabinet Door	600 x 400	Bodbyn 18mm MDF
<b>1</b>	4	Base Drawer Front	600 x 200	Veddinge 18mm Veneered MDF
<b>1</b>	4	Base Drawer Front	600 x 400	Veddinge 18mm Veneered MDF
<b>1</b>	4	Base Drawer Front Low	600	Utrusta 18mm Veneered MDF
<b>5</b>	5-9	Base Drawer Front	400 x 200	Bodbyn18mm MDF
<b>3</b>	8-9	Base Cabinet Door	400 x 600	Bodbyn 18mm MDF
<b>1</b>	8	Base Drawer Front Low	800	Utrusta 18mm Veneered MDF
<b>1</b>	9	Base Drawer Front Low	400	Utrusta18mm Veneered MDF
<b>1</b>	11	Base Cabinet Door	600 x 400	Bodbyn 18mm MDF

	Unit No.	Wall Unit Doors	Dimensions	Style/Material
No.			<b>W X H (mm)</b>	
<b>4</b>	13-17	Wall Cabinet Glass Door	400 x 600	Bodbyn 18mm MDF
<b>4</b>	13-17	Wall Cabinet Drawer Front	800 x 100	Bodbyn18mm MDF
<b>4</b>	14-16	Wall Cabinet Door	400 x 800	Bodbyn 18mm MDF

1	15	Wall Cabinet Door	200 x 800	Bodbyn 18mm MDF
1	18	Wall Cabinet Glass Door	400 x 800	Bodbyn 18mm MDF

## Appliances

### [From Ikea](#)

Eldslaga Gas Hob Stainless Steel 510mm x 730mm €275.00

Article Number: 702.780.56

Rutinerad Oven Stainless Steel 594mm x 560mm x 589 €450.00

Article Number: 702.451.84

Vindrum Wall Mounted Extractor Hood Dark Grey 900mm x 515mm x 755mm €300.00

Article Number: 502.446.56

### [Other Appliances Sourced from Power City](#)

Beko Fully Integrated Dishwasher 800mm x 600mm x 550mm € 279.95 x 1

Beko 10 Cu.ft. Fully Integrated Fridge Freezer 1770mm x 540mm x 535mm €379.95 x 1

Dimplex Microwave €55.95 x 1

### Extras

Stornas Bar Table Black 1270mm x 700mm € 200.00 x 1 Article Number: 702.176.52

Olofstorp Storage Unit Black 800mm x 400mm x 920mm € 200.00 x 1 Article Number:  
102.394.64

Fasto Rail Wall Panel 1200mm € 10.00 x 1 Article Number: 602.519.34

Limhamn Wall Shelf Stainless Steel 600mm x 200mm € 12.00 x 3 Article Number:  
401.777.18

Fastbo Wall Panel Tile 600mm x 500mm € 12.00 x 1 Article Number: 302.270.78

Faglavik Handle Black 116mm € 6.00 x 19 Article Number: 702.225.59

Forbatträ Plinth White 2200mm x 80mm € 16.00 x 3 Article Number: 002.054.45

Hallestad Worktop Black with Metal Edging 2460mm x 38mm € 80.00 x 3

Article Number: 402.021.57

Metod Legs 80mm 4 Pack € 6.00 x 12 Article Number: 402.055.99

Metod Suspension Rail Galvanised 80mm € 11.00 x 6 Article Number: 602.056.64

Nyttig Fil 440 Charcoal Filter 2 Pack € 20.00 x 1 Article Number: 502.457.45

Nyttig Tub 150 Flexible Pipe for Fan € 15.00 x 1 Article Number: 902.502.59

Orrnas Handle Stainless Steel 170mm € 9.00 x 2 Article Number: 702.361.51

Veddinge Cover Panel White 620mm x 2200mm x 1 € 38.00 Article Number: 702.344.68

Veddinge Cover Panel White 620mm x 800mm x 1 € 12.00 Article Number: 502.054.43

Veddinge Cover Panel White 390mm x 860mm x 1 € 8.00 Article Number: 802.344.44

Veddinge Cover Panel White 390mm x 2400mm x 1 € 36.00 Article Number: 702.054.42

Maximera Drawer Medium White 600mm x 600mm x 3 € 26.00 Article Number: 202.214.49

Maximera Drawer Medium White 400mm x 600mm x 4 € 20.00 Article Number: 402.214.48

Maximera Drawer High White 600mm x 450mm x 1 € 34.00 Article Number: 602.046.31

Maximera Drawer Low White 600mm x 370mm x 1 € 19.00 Article Number: 302.046.37

Maximera Drawer High White 600mm x 400mm x 6 € 37.00 Article Number: 902.046.39

Maximera Drawer Low White 800mm x 600mm x 2 € 28.00 Article Number: 402.046.27

Maximera Drawer Low White 600mm x 400mm x 2 € 17.00 Article Number: 602.214.47

Maximera Drawer Low White 800mm x 370mm x 4 € 24.00 Article Number: 802.046.30

Boholmen 1 ½ bowl insert with sink drainer Stainless Steel 900mm x 500mm € 70.00 Article



Number: 101.142.18

Atlant Water Trap x 1 € 30.00 Article Number: 402.155.22

Glittran Kitchen Mixer Black € 120.00 Article Number: 502.256.10

Hinges X 34

Joiners x 6

**Drawings**

Elevation looking in at wall "A"

Elevation looking in at wall "B"





Corner view showing all units, seating area, windows and door.



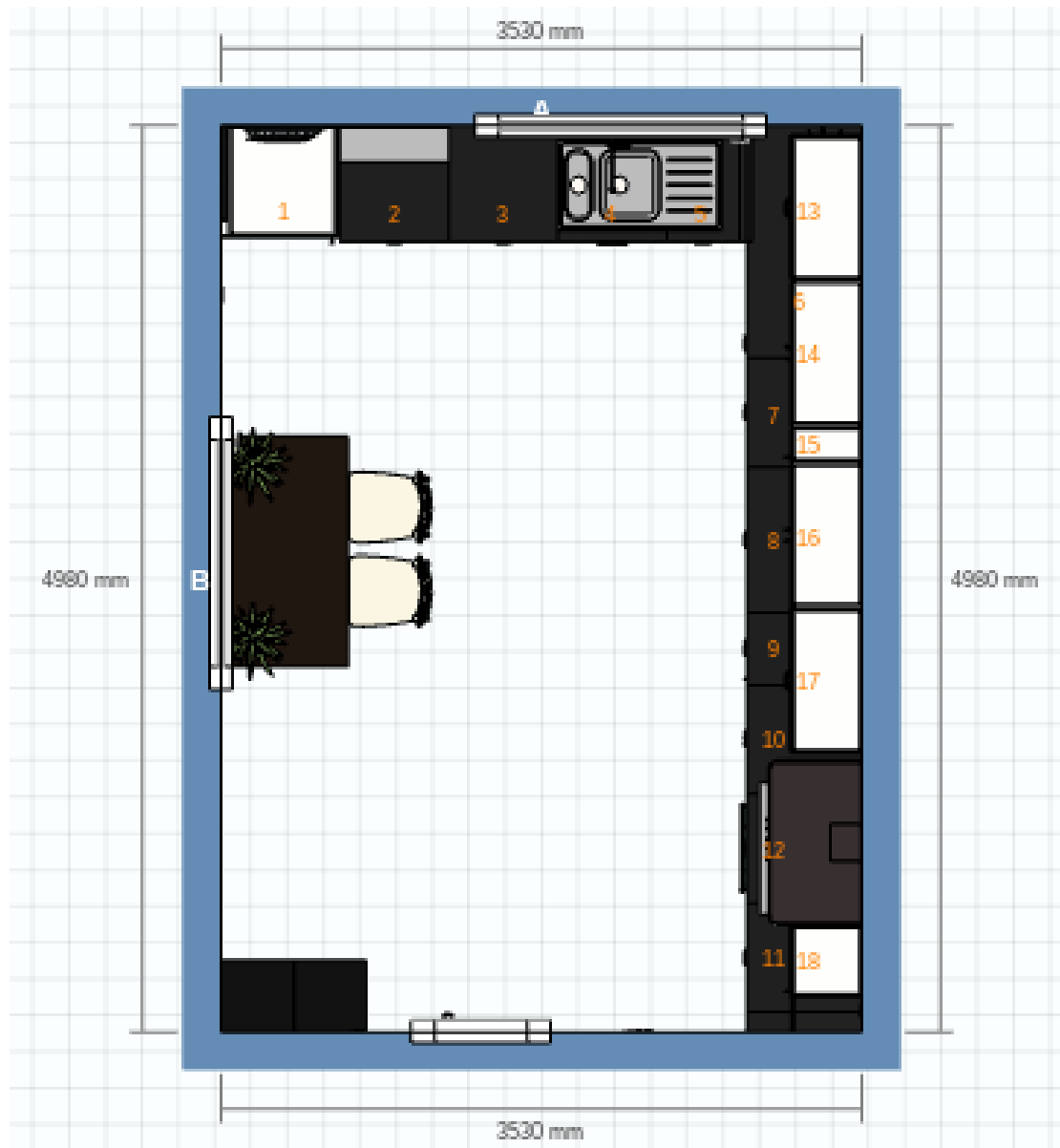
Image shown view of wall "D" where seating area, and fridge cabinet is present



View from corner of wall "A" and "B" showing walls "C" and "D".

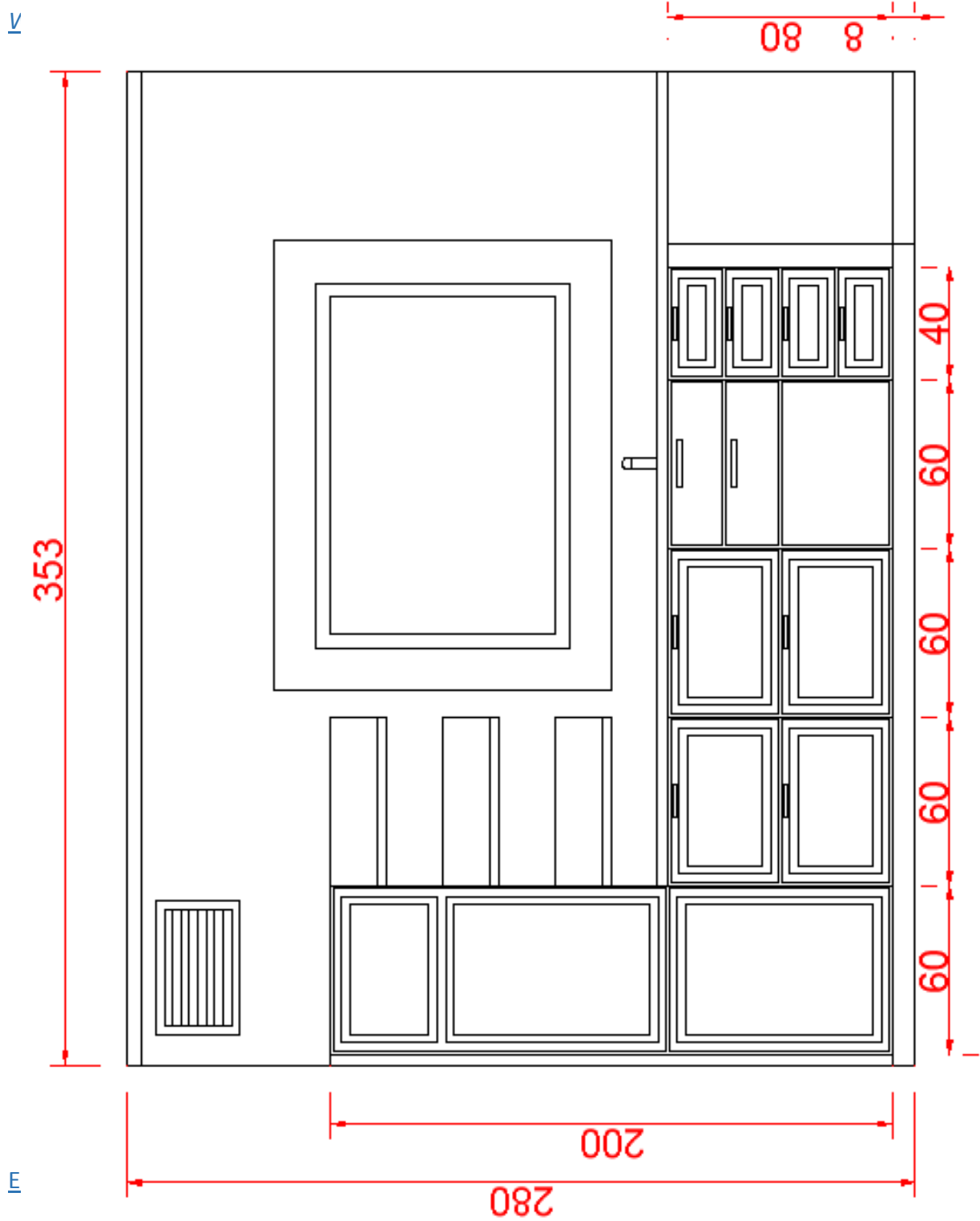


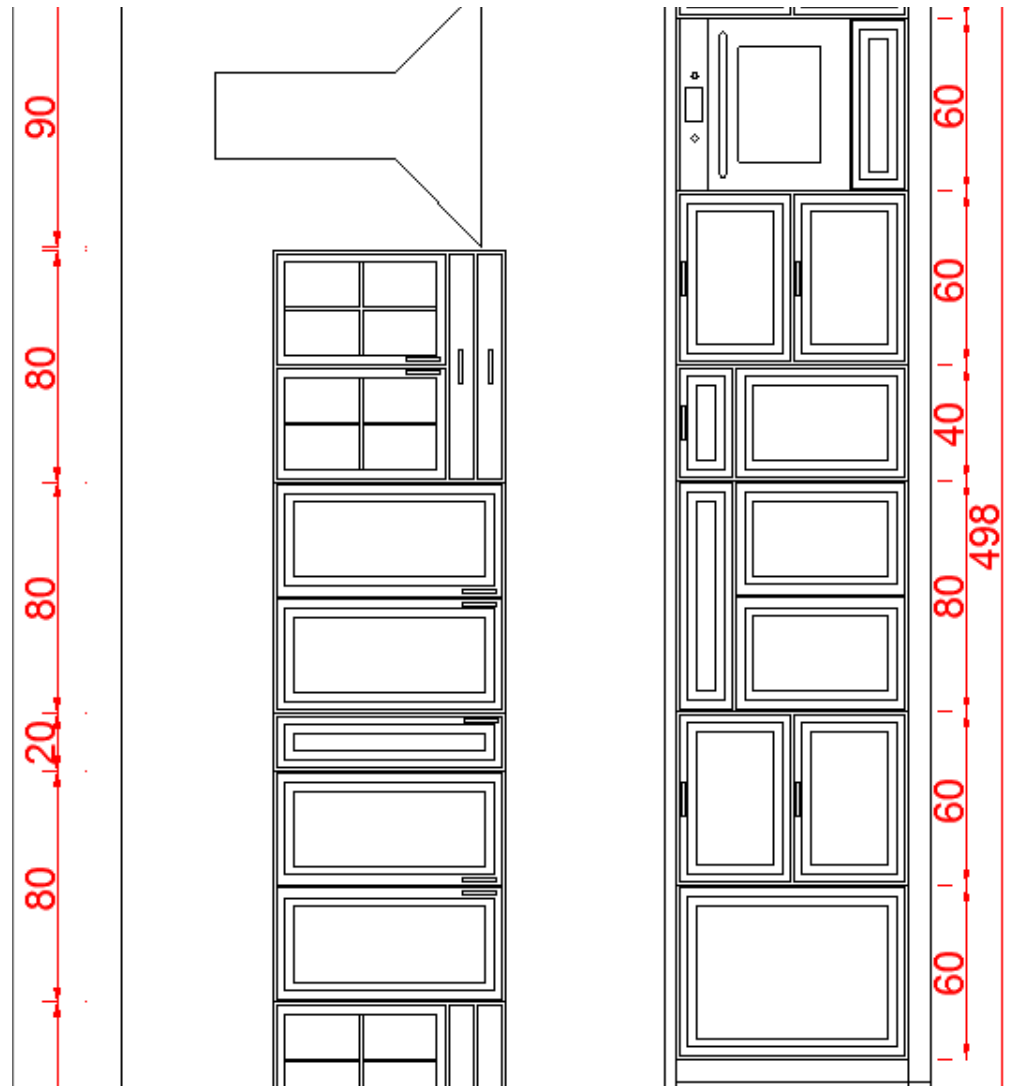
3D View of Kitchen



Plan of Kitchen Showing Layout Of all Components

Elevation



Wall B**Final Costing**

(All prices include carcasses, doors, shelf, hinges, feet and drawer fixtures)

Unit No.	Description	Price
1	Metod High Cabinet	€ 219.00
2	Base Cabinet With Drawers	€ 139.00
3	Base Cabinet For Dishwasher	€ 91.00
4	Base Cabinet For Sink	€ 140.00

<b>5</b>	Base Cabinet With Drawers	€ 170.00
<b>6</b>	Base Corner Unit	€ 134.00
<b>7</b>	Base Cabinet With Drawers	€ 139.00
<b>8</b>	Base Cabinet	€ 172.00
<b>9</b>	Base Cabinet	€ 124.00
<b>10</b>	Base Cabinet With Drawers	€ 139.00
<b>11</b>	Base Cabinet For Oven	€ 94.00
<b>12</b>	Base Cabinet With Drawers	€ 139.00

Unit No.	Description	Price
<b>13</b>	Wall Cabinet With Drawers And Glass Doors.	€ 189.00
<b>14</b>	Wall Cabinet	€ 106.00
<b>15</b>	Wall Cabinet	€ 54.00
<b>16</b>	Wall Cabinet	€ 106.00
<b>17</b>	Wall Cabinet With Drawers And Glass Doors.	€ 189.00
<b>18</b>	Wall Cabinet	€ 75.00

Extras	Price
<b>Stools</b>	€ 120.00
<b>Storage Unit</b>	€ 200.00
<b>Bar Table</b>	€ 200.00
<b>Wall Panel</b>	€ 12.00
<b>Wall Shelves</b>	€ 36.00

<b>Worktop</b>		€ 240.00
<b>Other Extras</b>		€ 473.00
Appliances		<b>Price</b>
<b>Oven</b>		€ 450.00
<b>Hob</b>		€ 275.00
<b>Extractor Fan</b>		€ 300.00
<b>Fridge</b>		€ 379.95
<b>Dishwasher</b>		€279.95
<b>Microwave</b>		€ 55.95
Installation Cost		€ 1000
Total		<b>€ 6,440.85</b>

## Appendix