

Construction Cost Consultants
Quantity Surveyors
Project Management

**Cost Study of 3 Bedroomed
Semi Detached House**

Prepared on Behalf of

Irish Home Builders Association

31st May 2012



Cost Study of 3 Bedroomed Semi Detached House

Introduction

Following a request from The Irish House Builders Association, *Walsh Associates Chartered Quantity Surveyors* undertook a study as to the cost of construction of a typical 3 bedroom semi-detached house. The costs are to reflect a unit which would be built at current construction costs and to a standard that complies with all current and relevant building regulations.

Walsh Associates is an established Quantity Surveying Practice and has 10 years' experience in all aspects of residential development construction throughout Ireland.

Background to the Construction Costs

To undertake the cost exercise we took the design for a typical 3 bed room semi-detached house which is the most common residential unit constructed in Ireland. The house is built of masonry construction consisting of brickwork to the front elevation with blockwork cavity wall construction to side and rear elevations. The exterior is finished in plaster and a paint finish.

The dwelling meets the 2011 *Part L* building regulations and energy requirements. Costs include for 100mm hi grade cavity wall insulation; 300 mm quilt insulation to the roofs. The units have an air tight membrane with wall ventilation. A heat recovery system of air ventilation is not included. The units are fitted with Solar Water heater to provide renewable energy in accordance with the building regulation requirements. The building would be constructed to a BER performance of B1 or higher.

Prior to the introduction of *Dept of Environment* guidelines (2010), the floor area for a 3 bed semi-detached house unit was approx. 95 sqm (1022 sqft). To comply with current standards the size has increased to 110 sqm (1,189sqft). The recent changes have increase the size of a typical unit between 10% - 15%.

The units are finished internally with a plaster and paint finish throughout and the dwelling is fitted with a modern kitchen, utility room, wardrobes to each bedroom and a fire place. An allowance of €1,500 has been made for tiling to wet areas.

The units have a low pressure hot water heating system (gas or oil fired) and thermostatically controlled radiators; water services are supplied to kitchen, bathrooms and other wet areas.

The units are fitted with power and lighting, smoke alarms and a security system.

The garden areas to the houses have been finished and seeded and an allowance has been made for driveways, footpaths surrounding the house and site boundary walls and railings etc.

It is necessary to apportion the infrastructure works such as road, drainage incoming services etc to this house. In undertaking this study we looked at the current costs for a similar 100 unit development and applied the costs on a pro rata basis. The cost include for water attenuation tanks, but not water recycling.

We have identified site indirect costs which include scaffolding Site Supervision, Health & Safety, Small tools, power, site accommodation, site security; Site & Building Insurance; Homebond Insurance.

Other Related Costs

All developments have to make an allowance Part V (Social & Affordable Housing) which is 20% of the development value of the site. In this exercise we have allowed €5,000.00 which would indicate that the land value of the unit is €25,000. In addition there are planning contributions attached to a grant of planning permission. An allowance has been made of €15,500 which is in line with current charges. However these amounts can vary depending on the local authority where the unit is being constructed.

From the outset consultants such as Architects, Engineers are involved with the planning application, detailed construction design site inspection and certification on completion.

When selling houses fees are required for sales agents and solicitors. A show house is constructed to assist sales in conjunction with marketing and advertising campaign.

Bank finance is required for the initial site purchase. This remains in place during the planning process and the construction stage and is paid off on completion of the sale of the house. We have allowed an amount of €7,000 per unit but this can vary depending on the duration or the loan and the rate charged for the finance.

VAT is not shown as this is a cost on the sale of the unit. An amount of 13.5% is withheld from the sales price to cover vat.

A "*Margin of Risk*" of 15% of the costs is applied. This margin of risk is to allow for cost increases or sales price deflation. Without a margin of risk of 15% or more, then a financial institute would not consider funding the development.

Cost Study of 3 Bedroomed Semi Detached House

Item	Cost	Cost/sqft
House Costs (Floor Area 1,189 sqft)	€	
Foundations and Floor slab	€6,600	€5.55
Masonry Works including budget for features to front elevation	€14,343	€12.06
Carpentry Materials & Labour incl Stairs, doors, stud partitions, skirting boards etc.	€11,302	€9.51
Roof trusses, roof finishes (concrete tile), rainwater goods	€7,839	€6.59
Windows and External Doors	€6,320	€5.32
Plasterwork and Painting and budget for tiling	€14,524	€12.22
Heating and Water Services	€7,837	€6.59
Electrical Installation (incl security alarm)	€3,658	€3.08
Kitchens, Wardrobes & Fire places	€9,092	€7.65
Insulation up grade to Part L , BER, Air Tightness membrane, tests, supervision of air tightness	€5,068	€4.26
Renewable Energy Requirements (Solar Panels)	€5,016	€4.22
Sub Total House Cost	€91,598	€77.04
External Works		
Drainage Services Around House	€2,090	€1.76
Boundary walls and fences, metal gates etc	€3,675	€3.09
Footpaths and Paving around House, driveways etc	€4,788	€4.03
Topsoil and seeding to Gardens	€620	€0.52
Sub Total External Woks	€11,173	€7.64
Site Development Works		
Site Clearance, topsoil removal, adjusting site levels	€1,145	€0.96
Site Enclosures, site boundaries, entrance piers, sub stations etc.	€1,687	€1.42
Roads, footpath, play areas, allowance for road widening at entrance	€4,788	€4.03
Foul and surface watermain and drainage; including Local Authority Fees	€3,748	€3.15
Site services including Power, Phone, TV Providers, Public Lighting, gas supply	€2,043	€1.72
Landscaping of Public Areas, Play fittings, seating, bollards etc.	€1,642	€1.38
Sub Total Site Development Works	€15,053	€12.66
Site Indirect Costs including Scaffolding, Site Supervision, Health & safety, Small tools, power, site accomadation, site security; Insurance; Homebond Insurance	€6,850	€5.76
Building Contingency for Unforeseen Items	€5,000	€4.21
Overall Construction Total	€129,674	€107.30
Other Costs		
Financial Contributions and Local Authority Bonds (see notes on costing)	€15,500	€13.04
Part V Contribution to Local Authority	€5,000	€4.21
Showhouse/ Advertising & Marketing / Sales & legal Fees	€8,000	€6.73
Consultant Design Fees (excludes additional supervision)	€6,200	€5.21
Site & Building Finance	€7,000	€5.89
Sub Total Other Costs	€41,700	€35.07
Margin of Risk: Amount to cover profit / sales variables (15%)	€25,706	€21.62
Overall House Cost	€197,080	€165.75

Notes on Costs

The amount charged for Planning Contributions can vary from between local Authorities.

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The cost of upgrading the building in line with current Part L regulation is approx. €12,000 (excl vat). This includes for condensing boilers, increased insulation standards, air tightness, valve controls on radiators, low energy light fittings and improved glazing standards.

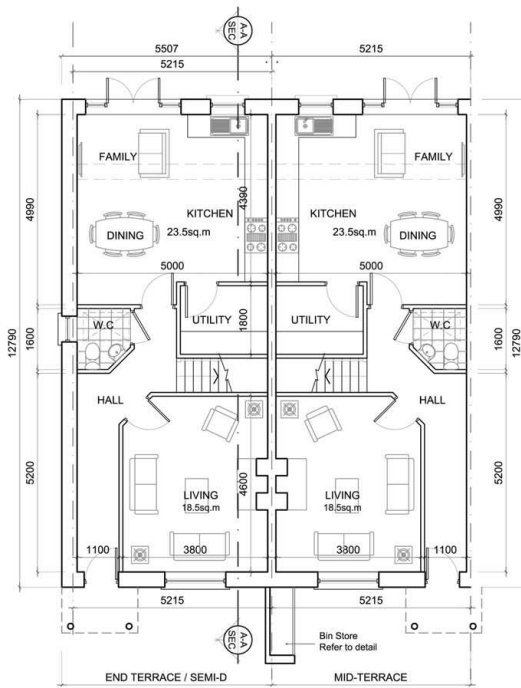
The costs allow for work to be carried out by registered contractors and sub contractors, who are in compliance with industry and statutory conditions of employment.

Conclusion

From the above table the construction cost is €197,080 (excl vat) which excludes land costs.

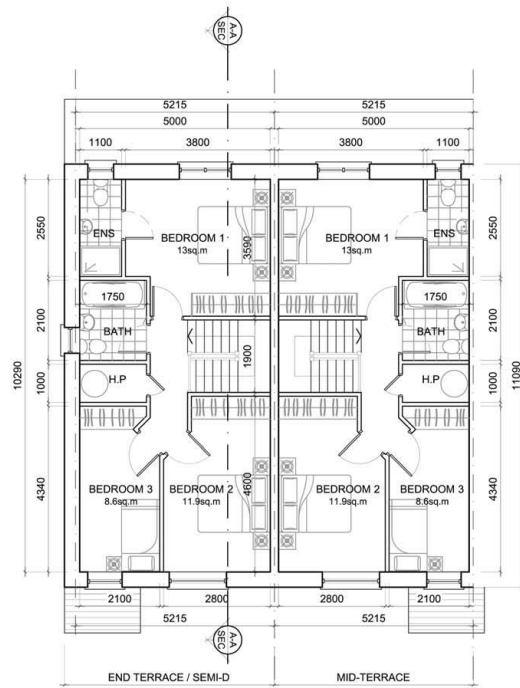
Vat of 13.5% is charged on the **"Sales Value"** of the house, therefore, the minimum sales value of the house is €223,685.80 so that a *"break even"* at the construction costs of €197,080 as outlined above is achieved.

Typical layout



GROUND FLOOR PLAN

59.5m²
OA 110.5m² / 1189sq.ft



FIRST FLOOR PLAN

51m²