Company Profile

GEM Group comprises of GEM Joinery, GEM Construction & GEM Development. Founded on the 12th June 1978, established as one of Ireland’s leading companies in the area of

- Architectural Joinery Manufacture
- Bespoke Joinery Services
- Contracting
- Development

GEM Group directly employs highly qualified and experienced professionals. Key to our success has been management’s ability to encourage employees on every level to gain all relevant expertise in their given field, while at the same time underlining the importance of concentrated and focused teamwork. GEM Group complies with all relevant Standards and we demand strict adherence to our ‘Best Practice’ policy. As part of our continued improvement we were awarded ISO 9001:2008, ISO 14001:2004 & OHSAS 18001:2007 by NSAI in June 2010. These three systems have been aligned to form the Integrated Management System which is managed by our Quality Health Safety & Environmental Department.

GEM JOINERY

GEM Joinery is a leading specialist architectural joinery company located in Longford with offices in Dublin and the UK. Over the years the company has undertaken many significant projects in the hotel, education, healthcare, retail, public and private sectors.

Full in-house design and schedule facilities combined with a state of the art 25,000 sq. ft facility; allow the craftsmen produce and deliver only the highest quality product. The manufacturing plant has the most advanced plant and equipment in modern joinery production with fully automated computerised cutting and machining centres. Our staff has an extensive knowledge of all aspects of design, manufacture & fitting. We source wood and other materials from all over the world to create the highest quality finish.

Areas of Expertise

GEM Joinery offers the following areas of expertise to clients:

- The ability to be cost effective in our pricing with savings as a result of our efficiencies.
- Large and medium sized contracts with on time delivery and ability to co-ordinate projects successfully with an experienced project management team.
- Assist and advise in the design and delivery of large-scale projects. We regularly work closely with Architects and Quantity Surveyors to streamline the approach to projects.
- A Project Management Team with capabilities to monitor standards, deliveries and qualities.
- Technical assistance in the areas of design, material and increased product life.
- Solutions by providing expertise and cost reductions for our customers. We are in a position to audit projects and suggest cost saving solutions.
- Refurbishment of listed Buildings.
- A network of sub-supply companies enables us to offer a wide range of services with specialisation in specific areas.

All our work is handmade to measure by genuine craftsmen and carried out to architectural and design specification to the highest quality standards utilising a combination of traditional and modern techniques in our own fully equipped workshop. We work hard to achieve client satisfaction and have always enjoyed recommendations and repeat business, we enjoy building long term relationships and ever increasing understanding of what each client’s preferences and requirements are.
GEM JOINERY & GEM CONSTRUCTION

GEM Joinery and GEM Construction operate separately, serving different aspects of the construction process with particular skill sets and resources being applied to the differing sections of any construction project. However GEM Construction & GEM Manufacturing also merge for different contracts to pool these resources and provide a complete turnkey service which has significant advantages to Clients as follows:

- Offering a turnkey manufacturing and fitting service for joinery
- Integrate joinery into the structure and inclusion of connected non joinery elements
- Streamlined coordination of complex joinery into complex building projects
- Utilising senior construction site management experience of between 10 and 30 years to manage joinery installation including programming, site management, and document control
- Availability of specialist equipment to complete setting out, material handling and access to works
- Supplying a subcontract service which reflects and understands the requirements of the Main Contractor
- Procure and Manage Non joinery Subcontract packages to integrate with the joinery package installation

We have recently completed the joinery aspect of the Auditorium in the Convention Centre Dublin which GEM Group completed utilising the resources of both Construction and Manufacturing. The project was managed by an expert construction team and manufactured and fitted by the manufacturing team. The client CMP Ltd together with many industry experts have remarked on the high level of professionalism demonstrated by GEM Group in the achievement of completing the Auditorium.
Company Profile

GEM Joinery can offer the following:

**Standard Range of Supply or Supply & Fit Joinery**

- 30min, 60min, 90min fire doors in timber frames or metal frames.
- Acoustic doorsets
- Pre hung door sets
- Skirting, Architrave and sheeting.
- Cladding

**Bespoke Joinery to Client and Architects requirements**

- Architectural Mouldings
- Custom made & fitted furniture
- Wall Paneling
- Acoustic Paneling
- Reception Area Furniture.
- External Joinery (Windows, and Doorsets) / Wall Cladding
- Bay Windows and Box Windows.
- Glazed Screens
- Bespoke Furniture
- Hotel complete fit-outs

**Supply & Fit Projects**

- Design Facility - To accommodate Architects' Specification and Drawings, Site Measure, Provide AutoCAD Shop Drawings for Approval & Manufacture exactly to drawing details.
- Scheduling - Provide workshop Schedules.
- Tool Room - State of the art, on site Tool Room for machining Cutters for new moulding and also match mouldings on existing buildings.
- Production - using state of the art computer aided technology.
- Assembly - by skilled craftsmen
- Pre finishing facility to client’s requirements.
- Site Fitting - Specialist team of in house site fitters.
Table of Contents

SECTION 1  
Joinery Process

SECTION 2  
Featured Project - Convention Centre Dublin

SECTION 3  
Project Experience

SECTION 4  
Client List & References

SECTION 5  
Quality Health Safety & Environmental
SECTION 1

Joinery Process
GEM Joinery Process:

**Design Office**
- Our experienced team of Designers liaise with Client & Architects to bring original design concept thru to build ability for site fit.

**Tool Room**
- State of the art Tool Room which allows the manufacture of machining cutters for new mouldings. We also match mouldings on existing buildings

**Timber Stores**
- We stock an extensive range of species of timbers; Cherry, Walnut, Iroko, Mahogany, Maple, Ash, AW Oak, E Oak, Softwoods
Saw Mill
- Timber arrives to the sawmill in a graded format for machining in preparation of component manufacture.

Manufacturing Plant
- The timber is now machined and prepared for manufacture of final product on fully automated manufacturing line with state of the art technology.

Production
- Timber arrives fully finished sized and labeled for assembly on fully automated production line with state of the art technology.
Assembly
• Skilled Craftsmen working on the assembly line

Dispatch
• GEM Manufacturing lorry being loaded ready for dispatch having final load cross checked
Site Process:

Site Delivery
- GEM Manufacturing has the capacity to utilise our own internal plant department and are able to provide telehandlers / mobile cranes for unloading / lifting operations on site.

GEM Project Management
- GEM Project Management Team of Contracts Manager, Project Manager, Engineers, and Quantity Surveyors manage each project from start to finish.
Quality Finished Product:

Site Fit
• Quality finished product fitted on site by our specialist in house fitters after going through the GEM Manufacturing quality processes

Gallen CS, Secondary School, Ferbane, Co. Offaly

Taoiseach's Office

Quality, Experience, Ambition
SECTION 2
Featured Project
Convention Centre Dublin
Convention Centre Dublin - Dublin

Project: Convention Centre Dublin
Architect: Kevin Roche John Dinkeloo & Associates
Value: €4,000,000
Description: Gem Group consisting of Gem Joinery and Gem Construction were awarded the contract for the fit out of the main Auditorium in the Convention Centre Dublin (CCD) in December 2008 by CMPL, a joint venture project between Treasury Holdings and John Sisk & Sons. The project presented the following challenges to be addressed and overcome by Gem over the course of the contract.

1. Design a structural suspension system to support the profiled acoustic timber ceiling to meet the requirements of the CCD and Kevin Roche John Dinkeloo & Associates (KRJDA) Architect’s.
2. Design and install a climatically controlled heating system prior to the installation of any acoustic timber panelling. The purpose of this system was to maintain the correct air temperature and relative humidity to protect all timber materials during the construction period until such time as the main air conditioning systems were installed by the main contractor and commissioned.
3. Design, manufacture and install all hardwood timber profiles to house the acoustic timber panelling to meet the requirements of the design as presented by KRJDA.
4. Provide a detailed programme for the implementation of all works, detailing the multiple interfaces with all other specialist contractors to ensure that the project was completed in line with our clients’ overall building programme.
The Convention Centre Dublin (CCD)  
Design and Contract overview for Gem Group

Gem Group consisting of Gem Joinery and Gem Construction were awarded the contract for the fit out of the main Auditorium in the Convention Centre Dublin (CCD) in December 2008 by CMPL, a joint venture project between Treasury Holdings and John Sisk & Sons. The project presented the following challenges to be addressed and overcome by Gem over the course of the contract.

1. Design a structural suspension system to support the profiled acoustic timber ceiling to meet the requirements of the CCD and Kevin Roche John Dinkeloo & Associates (KRJDA) Architect’s.

2. Design and install a climatically controlled heating system prior to the installation of any acoustic timber panelling. The purpose of this system was to maintain the correct air temperature and relative humidity to protect all timber materials during the construction period until such time as the main air conditioning systems were installed by the main contractor and commissioned.

3. Design, manufacture and install all hardwood timber profiles to house the acoustic timber panelling to meet the requirements of the design as presented by KRJDA.

4. Provide a detailed programme for the implementation of all works, detailing the multiple interfaces with all other specialist contractors to ensure that the project was completed in line with our clients overall building programme.

Structural Suspension System

The design and profile of the internal walls and ceilings of the Auditorium is complex as can be seen in the scaled model in figures 1 & 2 below. These profiles which are necessary to absorb and reflect the sound in the Auditorium required Gem to provide a structural backing to allow these profiles to be formed. The walls were constructed using a combination of preformed timber profiles and metal studwork. The ceiling profiles were more complex and needed to be suspended from the main building structure. Gem in consultation with the Project Engineers, O’Connor Sutton Cronin (OCSC) utilized the main steel roof trusses which spanned the full width of the Auditorium in conjunction with the Tegral Comflor 70 profiled metal roof deck to hang the ceiling structure. This in turn would support the hardwood timber profiles and timber acoustic panels.

Gem in conjunction with Masonry Fixings designed a system of tension rods formed from Silka M12 threaded steel bar at 1200mm centres from side wall to side wall and 2400mm centres from front to back within the Auditorium. These tension rods were anchored into the Tegral Comflor 70 metal deck with Fischer FZEZ II, 14 x 40 M12.
high performance steel anchors. A series of pull out tests were carried out by an independent company to ensure that the anchors met the loading requirements and had an adequate factor of safety for the loadings applied.

From the tension rods a grid of Silka 41 x 41mm Uni-Strut steel profiled members were installed at 1200mm centres in both directions. These members extended from side wall to side wall within the Auditorium to provide additional lateral longitudinal bracing above the acoustic timber panelling prior to any timber work being installed to help stabilize the overall structure.

Figure 1 Auditorium Side wall Profile

Figure 2 Auditorium Ceiling Profile
To form the ceiling profile itself, Gem utilized the Gypsum Gyproc suspended ceiling system which hung from the Uni-Strut structure above. A series of 25 x 25 x 0.55mm gauge Gypsum rigid frame angle hangers were attached to the Silka 41 x 41 metal profiles at 1200mm centres. The angles were fixed using 2 number 13 x 5.5mm Gypframe weafer head drywall screws.

![Figure 3 Cross Section of Suspension System](image1)

To the bottom of the angled hangers were fixed Gypframe MF 7 (26 x 80 x 0.9mm gauge) metal channel profiles at 1200mm centres. In the opposite direction to provide bracing and also a support for the timber ceiling was fixed Gypframe MF 5 (15 x 45mm) top hat sections. See figures 3 and 4.

![Figure 4 Plan of Suspension System](image2)
The acoustic timber panelling both reflective and absorptive had to be fixed to a timber substrate to ensure that the acoustic properties of the boards were maintained in service. To ensure this, Gem installed a 22 x 44mm breathed timber softwood batten to the underside of the MF 5 top hat section as shown in figure 5.

![Diagram](image)

**Figure 5 Lambri Topline Fixing Detail**

The installation of the metal suspension ceiling system which formed the main ceiling profile was equally challenging in terms of design, detail and installation, especially working around the multiple service disciplines; however with the in house design and experience of Gem Construction, a suitable platform for the installation of the timber acoustic panelling was achieved on programme ready to be handed over to Gem Manufacturing for timber installation.

**Climatic Controlled Heating system**

The timber acoustic panelling selected for the Auditorium for both the walls and the ceilings was a Lambri Topline steamed beech panel. This panel is an engineered board manufactured using a combination of fire rated profiled MDF and steamed beech veneer. The product has been used on similar projects throughout the world; however the panel requires the correct conditions for both installation and in service in terms of moisture, temperature and relative humidity. The Lambri specification outlines a recommended relative humidity (RH) between 45% and 65% at a temperature of approximately 18 degrees Celsius (°C). As the Auditorium had no air conditioning system installed at time of installation Gem had to design, install, maintain and monitor over the duration of the contract a be-spoke climatically controlled system that could meet the requirements of the Lambri panels to ensure that the perfect product was handed over to the end user, the CCD.
There were various obstacles in relation to the design and installation of such a system. The main concerns were:

- The volume of the Auditorium
- Closing the space as various external walls had not been completed
- The stage and fly towers were open and provided additional unwanted air volumes to be controlled
- A number of other specialist contractors required access to the Auditorium
- Collected and discharging the unwanted moisture

Gem looked at various options, but concluded that a pressurized system would need to be adopted to meet the stringent requirements of the Lambri specification. In orders to achieve this atmospheric condition Gem employed the services of Watkins Hire who have experience in providing controlled climatic solutions.

The following outlines the sequence of works and the materials/equipment used to climatically control the Auditorium to allow the Lambri acoustic panels to be installed.

Through Watkins Hire Gem provided 6 number Munters desiccant 1800m³/hr dehumidifiers at selected locations around the Auditorium. Some of these locations are identified on the accompanying figures 6.

*Figure 6 Climatic Control System Level 3*
These desiccant dehumidifiers force warm dry air into the Auditorium space expelling the colder damper air which would have the potential to damage the finished timber panels. In order to achieve the above, the Auditorium was required to be closed off and sealed at all locations to prevent the ingress of damp cold air. Gem had to close off all formed openings as described on the attached drawings. This includes all openings to floors, service ducting or builders works openings. It was established that the more sealed the Auditorium was the better the performance would be from the dehumidifiers. The building also needs to be sealed generally from the exterior, which was undertaken by the main contractor CMPL.

Each dehumidifier was fitted with a humidistat which allowed the RH to be checked on a daily basis. The Auditorium was also fitted with a number of thermometers in key locations which recorded the room temperature in Celsius. The humidistat’s will control the dehumidifiers over a 24 hour period and the dehumidifiers will be switched on automatically as and when required to do so in order to achieve the required conditions.

The dehumidifiers will as a result of the process expel water vapour or moisture from the machines. For Health & Safety reasons, this water was collected in water storage tanks located at agreed positions. These water tanks were emptied as required over the duration of the contract. The tanks have a capacity of 1000 litres and are 1m x 1m x 1m in size. It was estimated that initially the dehumidifiers may produce 5litres/hr; however this would reduce as the process continues and the air dries out.

The heating requirement was produced from the dehumidifiers which at full capacity produced 18kw’s of heat. This was supplemented as necessary at various stages in the contract as external weather conditions varied using 18kw 3 Phase electric heaters.

The above climatic controlled system remained in place until the main contractor had installed and commissioned the main air conditioning system for the building. The system as designed proved to be very successful as it had the flexibility to be configured to suit the conditions internally within the building and also the externally weather conditions. The system was monitored by site management twice daily to ensure that the correct range of both temperature a relative humidity were being maintained.
11 November, 2010

Gem Manufacturing
Athlone Road
Longford
Co Longford, Ireland
Attention: Kieran Rigney/Kevin Fay

Dear Kieran and Kevin,

Now that the project is complete I would like to take this opportunity to personally thank you for the professionalism and dedication Gem brought to the Conference Centre to make it what it is.

Understanding that we are from the United States and given the complexity of the joinery I must say I was initially concerned about your credentials but you immediately allayed any fear I had and continued to impress me throughout the installation - the finished product is a testimony to your firm and employees.

As you know all projects have a certain amount of anxiety therefore when someone brings a quiet intelligence to the process it really stands out - I thank you for your tremendous and valued effort.

If I can be of any help in the future please don't hesitate to use my name or contact me - you will get a glowing recommendation.

Thank you and give my best to all my friends at Gem.

Best regards,

[Signature]

Jon Carr
Project Architect
SECTION 3

Project Experience
Google European Headquarters - Dublin

Project: Google European Headquarters
Architect: Camenzind Evolution (Switzerland) & Henry J Lyons (Ireland)
Value: €3,000,000 (estimated)
Description: Initially GEM were awarded phase 1 for design, supply and installation of the specialist joinery and micro kitchen contract. This involved detailed design to develop the architect’s conceptual ideas for the project. The project included all elements from floor finishes to bespoke curtain installation. GEM achieved the strict programme requirements and completed phase 1 on budget and within time.

As a result of our performance on phase 1 GEM have now secured the specialist Joinery and micro Kitchen contract for Google’s new European Headquarters in Dublin’s tallest building. Work has commenced with design and we will be installing product on the 1st 3 floors within the next few weeks.
New Student Centre London School of Economics - London

Project: London School of Economics
Architect: O’Donnell & Tuomey Architects
Value: €2,000,000
Description: The New Students’ Centre will be the first new building at LSE for more than 40 years. It will be constructed on the site of the current St Philips buildings within the campus and gives every indication of being an exemplary piece of architecture that is innovative, sustainable and inspirational, and which will be at the forefront of ‘Contemporary Westminster’. The striking building design is by Irish architects O’Donnell & Tuomey, supported by an excellent design team. GEM Group have been awarded the design and installation of the complete external timber facade and entrance canopy. This involves design of all elements of the jatoba hardwood curtain walling system to CWCT test standards, including bespoke fixing system. The canopy design includes mild steel, jatoba, and glass to be a focal point of the entire building programming for this complex installation of the façade on a restricted London site and the interface of same with the building management system for control of both heating and ventilation. We are also currently in negotiations for the internal fit-out package.
Project: Convention Centre Dublin  
Client: John Sisk and Sons  
Architect: KRJDA

Description: Supply and fit out of internal joinery including:
- Acoustic steamed beech panels fit out to ceiling, walls, stage and Orchestra Pit Pit to the Auditorium,
- Acoustic steamed beech panels fit out to ceiling, walls in meeting rooms
- 1 hr & 1/2 hr fire doors & non fire doors in steamed beech
- Demountable doors in steamed beech
- Feature Walls to Front of House
- Acoustic Steam beech doors

Project: Backweston Food Safety Centre  
Client: PJ Walls  
Architect: OPW

Description: Supply and fit of internal joinery including:
- Multi veneered door sets
- A W Oak Fire rated screens,
- Solid Ash Dricon fire rated Class O Ceilings,
- Solid Ash Dricon fire rated Class O kidney type wall panelling,
- A W Oak fire rated Class O panelling,
- Solid Oak Radiator housings

Project: Ferbane School  
Client: Pierse Contracting  
Architect: Henry J Lyons

Description: Supply and fit of internal joinery including:
- Large ASH bespoke screens and frames finished black
- 1HR, 1/2hr and non fire ash doors
- acoustic ash doors
- ash paneling to atrium and PE hall.
- solid ash linings to windows.
- supply and fit of all internal acoustic and fire rated glass.
- Skirting to stair well, curved skirting to SNU area, skirting to all areas.
- Cedar to external gates.

Project: Banagher School  
Client: Pierse Contracting  
Architect: A&D Wejchert & Partners Architects

Description: Supply and fit of internal joinery including:
- Large ASH bespoke screens and frames finished black
- 1HR, 1/2hr and non fire ash doors
- acoustic ash doors
- MDF paneling to atrium of buildings.
- MDF linings to windows
- supply and fit of all internal acoustic and fire rated glass.
- Skirting to stair well, curved skirting to SNU area, skirting to all areas.
Project: Timberyard Apartments  
Client: Townlink Construction  
Architect: O’Donnell & Tuomey  
Awards: RIAI Award “Best Housing 2009”  
Description: Supply and fit of external joinery including large FSC iroko bespoke screens inward and outward opening bespoke windows and doors Cladding to full elevations of buildings that interfaces with screens

Project: Killiney House, Dublin  
Client: Townlink Construction  
Architect: O’Donnell & Tuomey  
Awards: RIBA Award 2008 (The sleeping giant)  
Description: Supply and fit of external joinery including Building involved complex geometries that required complex joinery both inside and outside of the building Large FSC iroko bespoke sliding doors incorporated in large screens, Inward and outward opening windows and doors, Large pivot doors Internal solid iroko furniture

Project: Sean O’Casey  
Client: PJ Hegarty  
Architect: O’Donnell & Tuomey  
Awards: AAI Special Award in 2009  
Description: Supply and fit of internal furniture including Reception Desks/Podium A W Oak Stage

Project: Longford Courthouse  
Client: Michael McNamara & Company  
Architect: Deaton Lysaght Architects  
Description: Supply and fit of internal courtrooms from steamed beech and mahogany including Reception Desks Courtroom seats Judges Benches Scrolled handrails to match existing Public Counters
Project: Cherry Orchard National School
Client: Townlink Construction
Architect: O'Donnell & Tuomey
Awards: RIBA European Award 2007
Description: Supply and fit of internal and external joinery in FSC Angelim Pedra including Large bespoke screens, Inward and outward opening windows and doors, Large bespoke curved screens

Project: Kildare Council Offices
Client: Pierse Contracting
Description: Supply and fit of internal Maple Furniture including Reception Desks Be Spoke Office Desks Fit Out of Council Chamber Public Counters

Project: Backweston State Laboratories
Client: Pierse Contracting
Architect: OPW
Description: Description of works, Supply and fit of internal joinery including, Multi veneered door sets A W Oak Fire rated screens, Solid Ash Dricon fire rated Class O Ceilings, Solid Ash Dricon fire rated Class O kidney type wall panelling, A W Oak fire rated Class O panelling, Solid Oak Radiator housings

Project: Ranelagh Multidenominational School
Client: Pierce Healy Developments
Architect: O'Donnell & Tuomey
Description: Supply and fit of internal and external joinery including Large iroko bespoke sliding doors incorporated in large screens, Inward and outward opening windows and doors, Large pivot doors
Project: O2 Head Office
Client: Pierse Contracting
Architect: Burke Kennedy Doyle Architects
Description: Supply and fit of internal joinery including
Steamed Beech veneered fire and non fire rated door sets.
A W Oak veneered fire and non fire rated door sets.
Formica fire and non fire rated door sets

Project: Citibank Offices
Client: Pierse Contracting
Architect: Scott Tallon Walker
Description: Supply and fit of internal joinery including
A W Oak veneered fire and non fire rated door sets.
A W Oak fire rated Class O panelling.
Large Oak bespoke fire rated screens

Project: Dundrum Town Centre
Client: John Sisk & Sons
Architect: Burke Kennedy Doyle Architects
Description: Supply and fit of external & internal joinery including
Large iroko bespoke screens and doors,
Shop fronts.
Formica fire and non fire rated door sets

Project: Urban Institute U.C.D.
Client: U.C.D.
Architect: Grafton Architects
Description: Supply and fit of external & internal joinery including
Large iroko bespoke screens,
Inward and outward opening bespoke windows and doors
Project: Eileen Gray Exhibition Collins Barracks
Client: OPW
Architect: OPW
Description: Supply and fit out of internal joinery including Large bespoke Exhibition show cases

Project: Dunshaughlin Civic Centre
Client: O'Hare McGovern
Architect: Grafton Architects
Description: Supply and fit of iroko external & internal joinery including Large iroko bespoke screens windows and doors

Project: Clasach Centre for Traditional Arts
Client: Rohcon
Architect: Deaton Lysaght Architects
Description: Supply and fit of iroko external joinery including Large bespoke screens, External windows and doors

Project: Westmeath Civic Offices Mullingar
Client: Westmeath County Council
Architect: Bucholz McEvoy Architects
Description: Coloured glass clad reception desks, Motor Tax desk & library reception desk. FSC certified Iroko curtain walling c/w motorized vents linked into main BMS system. PEFC certified external cedar cladding
Project: ERI. University College Cork
Client: University College Cork
Architect: Bucholz McEvoy Architects
Description: Iroko curtain walling louvered with and inward opening shutters to concrete frames building.

Project: SAP Galway
Client: SAP
Architect: Bucholz McEvoy Architects
Description: Iroko curtain walling c/w motorized vent birch plywood boxes linked into main BMS system. External iroko windows. Internal fit out of all door sets and wall panelling.

Project: Limerick Civic Offices
Client: Limerick County Council
Architect: Bucholz McEvoy Architects
Description: Internal fit out of all door sets and wall panelling
Project: Cork Medical Centre
Client: John Cleary Developments
Architect: Coughlan DeKeyser Associates CDA & Devereux Architects

Description: Supply of Steamed Beech internal joinery including.
None fire, 30min, and 60min Steamed Beech Doors to Metal Frames.
None fire, 30min, and 60min Steamed Beech Doors With Solid Steamed Beech Frames.
Feature Solid Steamed Beech Handrails to Balconies on all levels and Link Bridge.
11 November, 2010

Gem Manufacturing
Athlone Road
Longford
Co Longford, Ireland
Attention: Kieran Rigney/Kevin Fay

Dear Kieran and Kevin,

Now that the project is complete I would like to take this opportunity to personally thank you for the professionalism and dedication Gem brought to the Conference Centre to make it what it is.

Understanding that we are from the United States and given the complexity of the joinery I must say I was initially concerned about your credentials but you immediately allayed any fear I had and continued to impress me throughout the installation - the finished product is a testimony to your firm and employees.

As you know all projects have a certain amount of anxiety therefore when someone brings a quiet intelligence to the process it really stands out - I thank you for your tremendous and valued effort.

If I can be of any help in the future please don’t hesitate to use my name or contact me - you will get a glowing recommendation.

Thank you and give my best to all my friends at Gem.

Best regards,

Jon Carr
project architect
26th June 2009

Reference

To Whom it concerns,

I would like to take this opportunity to highly recommend GEM Manufacturing in their application for new work.

O’Donnell + Tuomey have been Architects for many projects on which GEM Manufacturing were subcontractor for the external and internal joinery, recently including a University Laboratory Building, private housing, a new exemplary school in Cherry Orchard Dublin and an award winning social housing scheme in Dublin.

Each project that they have worked on with us has been an individual and unique piece of design, challenging both ourselves and GEM in many ways. For example, the House in Killiney had complex geometries that required complex joinery both inside and out. The social housing, Timberyard, had double height timber insulated screens as part of the external wall makeup. With each project we have found GEM Manufacturing to be responsive, imaginative in resolving issues and joiners of excellence.

We have worked successfully and repeatedly with long standing members of their staff. In the course of several years working with them, GEM Manufacturing have kept up a high standard of craft, management, coordination of their team and programming and are professional in their approach to work.

We are happy to recommend GEM Manufacturing and provide further specific information if requested.

Yours Sincerely

[Signature]

Jeana Gearty
Associate
RE: GEM MANUFACTURING

29th June 2009

To Whom It May Concern,

This is to confirm that Grafton Architects have had the pleasure of working with Gem Manufacturing for the supply and fitting of bespoke timber windows and internal linings on a number of complex projects. These include The Urban Institute of Ireland, Dunshaughlin Civic Offices and the Boland House Clyde Lane.

The quality of the product was of the highest order with a meticulous attention to detail being carried throughout the project. We found Jim O Reilly's experience and knowledge invaluable on these and other projects.

We would have no hesitation in recommending Gem Manufacturing for projects requiring high quality internal or external joinery.

Yours Sincerely

Philippe O Sullivan MRlAI
To whom it may concern,

Bucholz McEvoy Architects strongly recommend the services of Mr. Jim O’Reilly, GEM and GEM Group respectively.

To date, GEM have been appointed as a specialist sub-contractor to a number of construction projects which required a multitude of joinery disciplines; these include the procurement of bespoke furniture, curtain walling, window manufacturing as well as several external and internal joinery finishes. Furthermore, we have been very pleased with the high quality of workmanship, attention to detail and technical expertise provided to services rendered to date. We have enjoyed and continue to enjoy a very professional working relationship.

We can confirm that GEM group have been involved on the following construction projects carried out to date:

1. Limerick County Council, Dooradoyle, Limerick
2. SAP Galway, Ballybritt, Galway
3. ERI, University College Cork
4. Westmeath County Council, Mullingar.

Yours Sincerely,

Merritt Bucholz
Director
SECTION 5
Quality Health Safety & Environmental
Integrated Management System

GEM Group Policies:

GEM Group policy statements have been written so as to be compatible with the organisations activities and services and the environmental and occupational health and safety standards and specifications set by the International Standards Organisation.

The company has defined the following in the policies:

- Its commitment to continual improvement in Quality, Occupational Health, Safety and Environmental performance;
- A framework for setting Quality, Occupational Health, Safety and Environmental objectives; and
- Its commitment across all levels of the organisation to prevent pollution, comply with current applicable legislation and to a process of continual improvement with client satisfaction and confidence.

The company policies have been communicated to all employees and are on display at public locations throughout the company sites. Employees have been made aware of their obligations and the company ensures that all employees understand the policy and that it is circulated to outside agencies (such as clients, regulatory and public bodies).

The policies have been approved by senior management of GEM Group and are reviewed for continued relevance at management meetings and amended if the organisational goals or regulatory requirements change.

The GEM Group Policies are maintained up to date and are available from the GEM Group website; www.gemgroup.ie

Integrated Management System (IMS):

The Company has always operated within a defined and successful management system structure. To enhance this, in August 2009, the Company embarked on a project to gain formal approval to ISO 9001:2008, model for quality assurance in production and installation. The company achieved certification in June 2010.

The skills and capabilities associated with this system’s approach to quality management enabled the company to develop and constantly improve the combined ISO14001 and OHSAS 18001 Safety and Environmental Management System.

GEM is publicly committed to putting health and safety first on all of its projects. GEM is also committed to minimising its impact on the environment so far as is reasonably practicable. The company is dedicated to developing and maintaining a culture of safety, and environmental awareness and responsibility within its organisation through:

- leading by example;
- providing adequate resourcing;
- promoting relevant training; and
- by making the necessary systems and management procedures available

To this end the company operated a formally documented system to manage the health and safety hazards and environmental impacts associated with its activities.

These systems have been aligned to form the integrated ISO 9001:2008, OHSAS 18001:2007 and ISO14001:2004 - Integrated Management System (IMS) outlined in this document.