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All information contained herein E&OE.
1.0 Origins of Partnering

The impetus for Partnering largely stems from Sir Michael Latham’s report, Constructing the Team (2), published in 1994. This examined ways of improving the construction procurement process by moving away from the traditional adversarial approach towards a more constructive system of procurement based on identifying common objectives within the whole supply chain and finding mutually supportive methods of achieving these objectives.

Latham’s ideas were carried forward by the 12th working group of the Construction Industry Board, set up in July 1995, which resulted in the publication of Partnering in the Team (1) in 1997. This important publication laid out the basic principles of Partnering and, through actual case studies, showed how Partnering theory can successfully be put into practice.

1.01 What is Partnering?

Partnering is not a term invented by construction’s spin doctors to paper over the industry’s problems. Neither is it a new form of construction contract. In fact, Partnering is a rigorous and structured procedure designed to create improved business relationships in the construction procurement process.

The clearest definition of Partnering can be found in the introduction to Partnering in the Team (1). “Partnering is a structured management approach to facilitate team working across contractual boundaries. Its fundamental components are formalised mutual objectives, agreed problem resolution methods, and an active search for continuous measurable improvements.”

Sir Michael Latham (2) underlines the key factors on which Partnering succeeds or fails. “Partnering includes the concepts of teamwork between supplier and client, and of total continuous improvement. It requires openness between the parties, ready acceptance of new ideas, trust and perceived mutual benefit.”

It can be seen from this that there are three clear strands to Partnering: mutual objectives, problem resolution and continuous improvement.

However, before any of these three clear strands can be identified and actioned on any given project, the correct preconditions must apply. The critical factor is total commitment to the principles and processes of Partnering on the part of every member of the construction team, from the client right down to the component manufacturers and specialist sub-contractors. If this occurs it will be the Partnering agreement, whether formal or informal, that drives the relationship between the parties involved in the project, rather than the contract documents.

Partnering, therefore, should be seen as a structured and objective discipline separate to, but not exclusive of, other good management practice. It provides a strong framework that allows good long-standing business relationships, including preferred supplier relationships, to develop and grow.

1.02 When is Partnering Appropriate?

Partnering can be the basis of any construction project. Obviously the benefits are most clearly seen on large scale projects, such as new hospital or commercial developments, but the principles of Partnering can be equally applied to smaller projects.

The fundamental precondition is not scale or location, but the mindset of the management and staff of the whole team. Partnering is only appropriate, and will only succeed, when the management of the organisations concerned believe in the principles of Partnering. This means having a belief in the honesty and integrity of individuals from the other organisations involved, a willingness to be open about their own contribution, a commitment to meet the challenges of any project and determination to continuously improve working practices. Partnering is predicated on empowering employees, trusting their decisions and listening to other members of the construction team and acting constructively on their feedback.

Above all, perhaps, for Partnering to succeed, the client must have total belief in its principles and processes, and ensure that its views are shared by every member of the contract team, especially the main contractor. This is vital because it is in the interfaces between client and main contractor, and main contractor and specialist subcontractors, that traditional construction contracts so often founder, resulting in costly and damaging litigation and financial disputes.

Partnering is most appropriate for high value, high risk projects. There is a long history of mutually-beneficial cooperation in the construction industry when the economic
environment is good and when things are going well, most clearly evidenced by preferred supplier arrangements and negotiated contracts. However, these arrangements tend to break down when the economic conditions are harsher or when things go wrong. Partnering, through its early establishment of mutual objectives and on-going conflict resolution strategy, allows this same spirit of co-operation to be maintained when things go wrong by creating a tangible sense of team working among all the parties involved. This makes it ideally suited to high value, high risk projects where the potential dangers of litigation and financial penalisation are magnified.

2.0 The Principles of Partnering

There are three clear principles of Partnering: mutual objectives, problem resolution and continuous improvement.

2.01 Mutual Objectives

Defining clear and actionable mutual objectives at the outset of a project is the cornerstone of Partnering. These goals need to be tangible and should be subjected to measurement and benchmarking to prevent Partnering leading to the development of cozy business relationships, reduced exposure to market forces and a tendency to carry under-performing team members.

These mutual objectives need to be kept under review throughout the project, via feedback from project meetings and effective communication across the team.

The benefits of Partnering are cumulative, so that strategic alliances are more advantageous than single project arrangements. This means that all parties, especially the principals, need to set long term, realistic goals; with the target of sustained, reasonable profitability for all members of the team.

The basis for these mutual objectives must be mutual trust and confidentiality. An open book arrangement, which allows each party to review and understand the business requirements of other members of the team, reduces the risk of corruption and encourages respect for other team members.

Partnering, therefore, is best implemented by a team of businesses with similar cultures, which highlights the importance of the pre-contract evaluation process.

Early Partnering projects tended to be based on a formal Partnering agreement which all parties were required to sign.

Such agreements would contain clauses covering all (or some) of the following areas:

- Completion scheduling
- Cost control
- Design safety
- Quality across the complete design and construction process
- Sensitivity to the needs of the local community
- Environmental diligence
- Respect, trust and fair treatment of all other members of the team
- A process of continuous improvement
- Sharing of cost-savings resulting from project improvements
- Implementation of jointly-agreed dispute procedures

It is now more common, especially since successful Partnering agreements tend to roll on from contract to contract, for this formal agreement to be omitted. Instead, the Partnering process becomes rooted in the bonds of trust established during earlier contracts, and the feedback from the continuous improvement process. Partnering thus becomes a virtuous cycle, removing the need for much unnecessary bureaucracy, especially during the design and tendering stages. As all the members of the team become more comfortable with the openness required in partnering, and more aware of the needs of other team members, the formal Partnering agreement becomes largely obsolete. Instead, the increase in job satisfaction, and the removal of financial insecurity, resultant from Partnering tends to increase every member’s commitment to the process, and helps to drive forward continuous improvement.

2.02 Problem Resolution

Problem resolution is often the area where commitment to Partnering is first challenged. Successful Partnering relies on a systematic approach to problem resolution. The basic strategy is to eliminate problems before they occur. This means, for instance, early consultation with critical subcontractors to ensure a smooth work flow on site. Above all, however, the key is a fundamental change in the mindset of the whole construction team. In the crucial site meetings, which should be chaired or supervised by a client
representative, all parties should be encouraged to seek solutions, rather than to apportion blame. Problems should be resolved as quickly as possible at the lowest possible level. This means that companies must empower their representatives to make decisions on the company’s behalf and then trust the individual’s judgement. Any conflicts should also be approached on the basis that all parties have equal rights, so the relative size and financial muscle of the two parties does not become an issue.

The Partnering solution to problem solving is thus based on common sense. It is reinforced by the general acceptance among the construction industry that adversarial attitudes waste both time and money, and greatly detract from job satisfaction. They can also jeopardise quality since the adversarial approach tends to lead to each party doing the least possible to fulfil their contractual obligations, whereas mutual support would generally prove beneficial to all parties.

2.03 Continuous Improvement

Continuous improvement is probably the least obvious, but potentially greatest, benefit of Partnering. As we have noted earlier, the benefits of Partnering tend to be cumulative. Strategic alliances are formed which can run smoothly over successive contracts. Lessons learnt on one project, therefore, are carried forward to the next. Improvements to the procurement process and site operations are made and built upon. Relationships are strengthened. For continuous improvement to work effectively, it is vital that quantifiable targets are set, progress recorded and overall performance measured against set targets. The targets can cover a wide range of areas, such as speed of construction, contract costs, community relations, site safety, or build quality. The ultimate aim should always be the same: identifying and aiming for best practice. One of the benefits of Partnering is that it is not now more generally accepted that competition is not the only way to achieve best value for money. A good example is the full and early consultation encouraged by Partnering that not only cuts costs but can also shorten the construction cycle. Once again, these benefits are cumulative.

3.0 Selecting the Team

Successful Partnering relationships rely on establishing a complete team of partner companies and individuals who share a commitment to the process and have compatible business cultures. Essentially, the management of each company in the team (or individual consultant or specialist) should believe that the route to sustainable competitive advantage lies in empowering their employees to deliver to their capabilities. The process of selecting the members of the construction team, therefore, must be rigorous, covering not only quality and price, but also company ethos and employment practices. It is also important to evaluate the effectiveness of the management’s communication to ensure that board level commitment to Partnering is reflected at the grassroots of an organisation.

Every member of the construction team has something to gain from Partnering, as the following sections highlight.

3.01 Partnering: The Client’s Perspective

Superficially, the Client has little to benefit from Partnering. After all, following a normal contract, the contractor commits to build an agreed structure for an agreed fee in an agreed time frame. If the project is late, penalty clauses are activated. If the project runs over budget, it is somebody else’s problem. If serious disputes arise, there is always recourse to the courts.

However, this is too simplistic a view. The adversarial, tender-based process involves considerable time and cost for the client and, ultimately, rarely achieves its true objectives.

More and more clients are realising that Partnering offers significant benefits, once the groundwork has been undertaken. Deciding to go down the Partnering route does involve considerable commitment from the client, notably in the evaluation of potential team members. This will, at best, involve an evaluation of possible main contractors, in order to find a shortlist with a proven track record and a comparable commitment to Partnering.

For BAA, for instance, this exhaustive process involves advertising in the EC journal, sending out questionnaires to all respondents, evaluating the responses, drawing up a shortlist, and then sending out a more detailed questionnaire to the selected companies. From this process a revised shortlist of companies is generated, which is subjected to internal scrutiny before a final list of companies is visited by BAA’s representatives and assessed on their enthusiasm for Partnering and general professional competence, leading to a final set of approved suppliers. This process is repeated in all the main consultant categories, such as architects, structural engineers, M&E
consultants, etc., and also for selected specialist contractors. As Paul Corbett of BAA comments, “You need to be pretty focused and systematic to undertake an exercise on this scale. We are asking our partners to undertake a sea-change in thinking. It's not about what you have done, but what you can deliver in the future. However, the benefits if you get the process right are enormous. We try to keep teams together to get the cumulative benefits of Partnering, and to match expertise to project types.”

Tony Giddings, of developers Argent, also believes that Partnering has much to offer the client. “The tendering process can be a colossal waste of time. To make any procurement process work successfully, you need a result that gets you into bed with the right people. Tendering doesn’t give you this. You can end up with the wrong people and tender prices that are outside the budget. It is far better to get the right people on board, set a budget and then work together as a team to get the best possible building for that budget. There will be problems, but if we all take ownership of these problems and work together we can drive out the culture of blame. We have found that the more buildings you do with the same team, the fewer the mistakes. With traditional tendered contracts you are always re-inventing the wheel, which is no way to generate continuous improvement. We have also got our average construction time down for, say, an 80,000 sq. ft commercial development on a greenfield site from 18 to 12 months, largely through detailed consultation with committed members of the design and supply side at the planning stage.”

Tendering still has a role for the client, especially when entering new or difficult areas where it can be hard to set a budget. But, as Tony Giddings comments, “Why go through this process again when there is no need?”

The main benefits:

- Cuts pre-contract lead-in
- Reduces unnecessary administration and tender evaluation
- Improves quality of pre-site discussions
- Shortens total development period
- Cumulative benefits of teamworking improves built quality
- Facilitates utilisation of sub-contractor expertise
- Allows expertise to be matched to specific projects
- Reduces post-contract disputes and litigation

3.02 Partnering: The Main Contractor’s Perspective

In a traditional contract the main contractor is at the sharp end. In a competitive tender situation, up-front costs are high with no guarantee of success. If the tender is successful, cost must then be squeezed out at every stage of the project, usually by adopting a very hard stance with sub-contractors. A great deal of administration has to be invested in site disputes, often involving design detailing or site access disputes that could have been designed out at the planning stage.

As Chris Gilmour of HBG Construction noted in an article about Number Five Brindleyplace, a Partnering project for Argent (3): “Assembling the team at the beginning was key to the success of the project. The site manager was appointed along with planners, buyers and key sub-contractors and suppliers before the outline design was complete. The next step was a full briefing of the entire team to ensure they all had a common understanding of what the project objectives were. Workshops were held to create a team culture. Over a period of five months designs were developed, programmes tested and costs examined. At one point the cost plan reached £16.5 million yet with much hard work and innovation the project cost was reduced to £14.3 million, £200,000 less than the target. The savings were shared between HBG, the design team and the tenant. Number Five was both started and completed on the days laid down in the schedule. The final account was agreed on the day of practical completion and HBG Construction and all its sub-contractors profited.”

Argent’s deep commitment to Partnering is unusual among clients, but the experience gathered during the multi-stage development of Brindleyplace offers an object lesson in the potential benefits for contractors. Here Argent underwent a two-stage tender process from which two contractors, Wimpey (now Tarmac Construction) and Kyle Stewart (now HBG Construction), were selected from an initial shortlist of six to tender for Number One on a full design and build basis. While Tarmac won the contract, the client was so impressed with the presentations of both parties that HBG was promised the next phase on a Partnering basis. The tendering process had uncovered two potential partners for Argent for the whole development. As a result, Tarmac has undertaken Numbers One, Two, Four and Six Brindleyplace, while HBG has completed Numbers Three, Five, Seven and Nine, plus the café.
In keeping with Partnering’s ability to match expertise with challenge, Norwest Hoist was awarded the contract for the multi-storey car park and, later, the Crescent Theatre.

The overall success of this approach is that no contract sum at Brindleyplace has exceeded the cost plan, no final account has exceeded the cost plan set for the project, no claim has been received, and no major delays have been experienced: all this over 25 separate contracts, worth over £300 million, spread over a 17 acre site.

Partnering, therefore, provides certainty for the contractor. By providing an environment where everyone from the design team through to the specialist sub-contractors actively co-operate to achieve the project’s objectives, the contractor is able to concentrate on construction issues and less on conflict management and cost control. That is not to say that Partnering implies a laxness regarding costs - the input of the team means that less money is wasted during construction. This allows buildings to be built on time, at competitive prices, thus enabling all parties to make a fair profit. Contractors are also able to benefit from the strong team relationships Partnering fosters, which progressively benefit each project the longer the team stays together.

The time and money effectively wasted during competitive tendering can now be focused into the pre-planning stage. Contracts run following Partnering principles have found that although the early involvement of contractor and specialist sub-contractors carries a cost and requires a project management fee, the total fee costs on Partnering projects are actually below the market norm because, when work actually commences on site, it proceeds smoothly compared to traditional competitively tendered projects.

The main benefits:

- Removes a lot of the uncertainty surrounding major projects
- Allows better workload planning
- Obviates the need for costly and time consuming tender presentations
- Increases staff morale and motivation
- Allows main contractor to fully utilise sub-contractors’ skills
- Enhances relationship between designer and contractor
- Cumulative benefits of teamwork improve built quality
- Reduces post-contract disputes and litigation

3.03 Partnering:
The Designer’s Perspective

Of all the members of the construction team, architects are likely to experience the least direct impact from Partnering. Possible benefits should stem from early consultation and liaison with both main contractors and specialist sub-contractors.

Perhaps the greatest benefit for the architects and other members of the core design team lie in the early involvement of sub-contractors. Too often in projects, positive inputs from subcontractors cannot be adopted because irreversible decisions preventing their implementation have already been made. In Partnering projects it is easier for key packages, such as curtain walling, to be partnered, thus enabling the supplier’s and sub-contractor’s expertise to be assimilated into the overall design process at an early stage. This allows the design team to take a strong overview of the concept in the knowledge that the scheme will not hit unforeseen snags during implementation on site.

This reassurance concerning buildability and suitability of material selection also allows the design team to concentrate on other important concepts. Typical are green issues such as embodied energy, life cycle costing, low maintenance and environmental impact studies.

Project designers can also gain much from the pre-site workshops common in Partnering projects. These not only allow the whole team to take stock, review the project plan and formulate the best building programme, but also allow specialist sub-contractors and suppliers an insight into the overall design concept, which can have a significant impact on commitment levels, by providing a context for individual partnerships within the team.

Despite the profession’s reputation for arrogance, architects are highly attracted to the idea of Partnering. In market research carried out by B&M for Kawneer, 68% of a representative sample of 180 UK architects were in favour of the Partnering concept and would welcome a more open, co-operative approach to contracts.

The main benefits:

- Reinforces the links between designer and contractor
- Encourages positive input from specialist sub-contractors
- Provides an ideas forum for key material suppliers
• Frees time for important peripheral design issues
• Cumulative benefits of teamworking facilitates full realisation of design concept
• Reduces post-contract disputes and litigation

3.04 Partnering: The Sub-contractor’s Perspective

In many ways, Partnering has most to offer the specialist sub-contractor. In traditional adversarial contracts, it is the sub-contractor who most often feels at the sharp end. As well as the up-front costs of preparing detailed tender documentation, it is not unusual for one major project to represent 6 to 12 months turnover for the sub-contractor. If the project costs are escalating, it is the sub-contractor’s margins that get squeezed. One defect action or retained payment can cause the company to fail. This situation is exacerbated by the fact that many specialist sub-contractors are only consulted late in the day, when key design decisions which adversely affect their element of the project have already been completed. Such problems are compounded by pressure from following trades or delays in earlier construction phases, which can all impact negatively on their ability to perform their role to their full ability.

Partnering, with its emphasis on early consultation and active encouragement of positive feedback from the whole team, allows specialist sub-contractors to use their expertise to the benefit of the project as a whole. The framework for conflict resolution also allows day-to-day site access problems and other inevitable contractual conflicts to be resolved before they become a serious problem. Most importantly of all, the pre-site workshops allow all the budgetary issues to be raised early in the construction cycle. With the open book approach, contractors and clients are far more aware of the basis for sub-contractor’s costings. As these workshops should resolve the majority of foreseeable site difficulties, even if the overall project costs have to be cut to meet the budget, the sub-contractor is able to re-engineer its element so as to preserve margins. As Partnering stresses the benefits of sustained relationships, it is in everyone’s interest for all parties, including the sub-contractors, to achieve reasonable profits. This is in marked contrast to traditional contracts where the main contractor, under pressure from cost over-run, inevitably squeezes the sub-contractor’s margins.

In short, true Partnering emphasises value above cost. Partnering also treats all members of the team as equals, and acknowledges their areas of expertise. Many sub-contractors are finding that as the concepts of Partnering become more accepted they are able to be more choosy about the work for which they will tender. The emphasis is less on lowest cost and more on value engineering; getting the best possible building at a competitive price.

Multi-phase Partnering agreements, like Brindleyplace, are particularly beneficial to specialist sub-contractors. The security they provide allows for much more efficient workload planning, and gives the reassurance to allow for capital investment and expansion of the workforce.

Alan Quarly of specialist fenestration and curtain wall contractor Glamalco sums up the prerequisites and the potential of Partnering for the specialist sub-contractor. “In my view Partnering can be achieved only when the client is committed to it and drives the project, calling for total involvement with all major trades. At Brindleyplace, the client, Argent Group, with the main contractors, Carillion and HBG, have allowed the specialist sub-contractors to do what they do best - provide a service based on their own individual expertise.”

The main benefits:

• Provides the security needed to allow investment
• Utilises sub-contractors’ expertise in the project planning stage
• Allows main contractor to better appreciate the sub-contractor’s perspective
• Improves relationships throughout the supply chain
• Helps sub-contractors preserve profit margin
• Reduces site disputes
• Increases staff morale and motivation
• Enhances built quality through the cumulative benefits of teamworking
• Reduces post-contract disputes and litigation

3.05 Partnering: The Material Supplier’s Perspective

From the outside it may seem as if Partnering would have little impact on the material supplier’s business. However,
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<th>Project</th>
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<th>Installer</th>
<th>System</th>
<th>Contract value</th>
<th>Specification</th>
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<tr>
<td>Tesco Extra, Newcastle</td>
<td>Gordon White &amp; Hood</td>
<td>S Dudley &amp; Sons Ltd</td>
<td>Kawneer Series 1200 curtain walling</td>
<td>£504,000</td>
<td>1200 curtain walling curved and faceted head and cill to follow wave affect of upper and projecting roof.</td>
</tr>
<tr>
<td>Ashwood &amp; Maplewood, Chineham Business Park, Basingstoke</td>
<td>Scott Brownrigg &amp; Turner Ltd</td>
<td>CAP Aluminium Systems Ltd</td>
<td>Kawneer Series 1200 curtain walling and 1200S structural silicone glazing</td>
<td>£610,000</td>
<td>Ribbon fixed light glazing incorporating feature aerofoil light shelf fixed to mullions with full height structurally glazed screens to entrances.</td>
</tr>
<tr>
<td>UGC Cinema Complex, Glasgow</td>
<td>Atkins Walters &amp; Webster</td>
<td>Pendant Aluminium Ltd</td>
<td>Kawneer Series 190 doors, Kawneer Series 1200 curtain walling and Kawneer Series 501 Casement windows</td>
<td>£1,200,000</td>
<td>This 13 storey new build structure in the heart of Glasgow city centre, boasts Europe’s tallest cinema complex. Kawneer curtain walling was used throughout with unique faceted detail using single mullions. Kawneer’s 501 Top Hung Casements provide ventilation to the public circulation areas.</td>
</tr>
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<td>Project</td>
<td>Eight Brindleyplace, Birmingham</td>
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<td>-------------------------</td>
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<tr>
<td>Architect</td>
<td>Sidell Gibson Partnership</td>
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<tr>
<td>System</td>
<td>Kawneer Series 1200 curtain walling, Kawneer Series 1200S structural silicone glazing and Kawneer Series Tilturn windows</td>
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<td>Contract value</td>
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<tr>
<td>Specification</td>
<td>Customised curtain wall bays were developed for the offices of this multi use building. Other features include punched window units incorporating a special brise soleil aerofoil, entrance curtain wall spanning seven floors, and balcony doors into the apartment area curtain walling.</td>
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<td>Installer</td>
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<td>System</td>
<td>Kawneer Series 1640 and 1200 curtain walling</td>
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<td>Contract value</td>
<td>£1,400,000</td>
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<td>Specification</td>
<td>Complete overclad of an existing concrete frame structure utilising Kawneer curtain wall wall systems.</td>
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<tr>
<td>Architect</td>
<td>Weedon Partnership</td>
</tr>
<tr>
<td>Installer</td>
<td>Exterior Profiles Ltd</td>
</tr>
<tr>
<td>System</td>
<td>Kawneer RS-100 Rainscreen system and Kawneer Series 1200 curtain walling</td>
</tr>
<tr>
<td>Contract value</td>
<td>£3,000,000</td>
</tr>
<tr>
<td>Specification</td>
<td>A custom-designed rainscreen cladding system was developed for the state of the art Design &amp; Engineering Centre which met all of the criteria within the architect’s design and performance specification, as well as the stringent quality requirements.</td>
</tr>
</tbody>
</table>
it is now startling to be appreciated that Partnering can both improve relationships between the supplier and the main contractor or specialist sub-contractor, and also unlock a vast pool of knowledge and expertise for the design team. Many material suppliers are also adopting a Partnering approach with their component or service providers, further extending the benefits of Partnering through the whole supply chain.

Kawneer, as a specialist supplier of curtain wall and fenestration systems, applies a Partnering philosophy to its network of approved installers. However, as with the relationship between contractor and client, material suppliers like Kawneer find that once the bonds of trust have been established between manufacturer and installer formalised agreements are rarely necessary.

As Kawneer’s sales director, Malcolm John, comments. “Without this bond of trust, people get defensive when a problem occurs and look for someone to blame. When this trust exists, people get together to try and find a solution to the problem.”

For specialist manufacturers like Kawneer, Partnering is a two-way process. Its customers, i.e. its nationwide network of installing dealers, have first to meet the strict commercial tests of experience, location and probity, and then make a clear commitment to continuing training. In return, Kawneer provides the systems development and project support needed by installers at the tendering stage. This is followed through by technical support on site, and the willingness to design and fabricate bespoke components, where necessary to meet a project’s particular needs.

Like all successful Partnering agreements, successful business relationships between material suppliers and their clients must be based on transparency, trust and a mutual recognition of each other’s expertise and business needs. This is fostered by the open book approach, which recognises that both parties need to make a fair margin if onward investment in training, product development and other essential areas are to be sustainable.

As with sub-contractors, manufacturers of specialist systems, such as curtain walling, gain from the early consultation fostered by Partnering. This will highlight simple modifications which can be made to the concept design, in relation to the framing system for example, which can reduce fabrication and installation costs. When the material suppliers are considered part of the project team and encouraged to provide positive feedback to the project workshops, they are able to utilise their unsurpassed knowledge of their sector for the greater benefit of the project as a whole.

If this message is also effectively communicated to the manufacturer’s workforce, it has the added advantage of allowing another link in the supply chain to take ownership of the project; improving productivity and helping to drive through quality improvements.

This factor is very important, believes Kawneer’s managing director, Kelvin Goodacre. “It is important that everyone is aware of their individual contribution to the company. When this country’s magnificent cathedrals were being built, all the quarrymen and masons knew what their efforts were leading towards. This informed their work, and gave them a sense of achievement. That is what we are trying to achieve at Kawneer. We devolve every action down as far as possible. If a paint sprayer notices a problem, he can shut down the production line. It is about trusting and empowering all staff. The same occurs on major projects. We appoint a team to handle each project and control the supply chain by keeping it in house. This means that we involve more people with the customer than would otherwise be the case. This allows individuals to fully understand their impact on a project. This, in turn, drives improvements across the board, from fabrication to communication.”

Kawneer actively applies the Partnering principle to its key component and service suppliers. Fundamentally, the differences between this and the conventional approach are those of attitude and commitment; creating open, mutually beneficial relationships based on trust, integrity and long-term commitment, rather than price and price alone. The most obvious manifestation of this Partnering approach is that it is not just sales and marketing departments that communicate, but also technical, logistics and accounts functions. Cross company visits and training are encouraged to get workforces better acquainted with the needs and pressures of the supplier partner. Expertise and market intelligence is pooled, allowing both parties to make better informed investment decisions.

Kelvin Goodacre sums up what is needed to make Partnering work. “Management must truly believe that the company’s people are honest, want to do things that are valued and are motivated by challenge. Then they must trust their staff and empower them. They must then find partners with a similar business ethos.
Partnering has a structured methodology but fundamentally it is about the mindset of every individual in the team. If everyone believes in the Partnering process it will work.”

The main benefits:

- Provides the security needed to allow investment
- Utilises manufacturer’s expertise in the project planning stage
- Motivates staff and reduces staff turnover
- Empowers individuals and allows them to reach their potential
- Recognises the need of all parties to preserve reasonable margins
- Enhances built quality through the cumulative benefits of teamworking
- Generates the widest feedback into the product design process

4.0 Best Practice in Partnering

It is not the purpose of this White Paper to provide an exhaustive account of best practice in Partnering, as these can be found in the publications listed under 8.03 Further Reading. However, this section does provide an overview of the key stages in any successful Partnering arrangement.

4.01 Contracts

Partnering can be applied with any of the main procurement methods, such as design and build, management contract, etc. It does not remove the need for a modern form of contract, such as JTC98, but the spirit in which the works are undertaken should minimise the need to resort to the contract. As Tony Giddings comments, “We sign the contract and then it is put in the bottom drawer and forgotten.”

4.02 Early Consultation

The greatest benefits of Partnering occur when the team is brought together at the earliest possible stage. Ideally this should be at the feasibility or concept design stage.

4.03 Compatible Cultures

All parties need to be wholly committed to the concept of Partnering. Companies need compatible business cultures, and each partner should ideally have a Partnering champion charged with communicating the benefits to the entire workforce, particularly the project team.

4.04 Workshops

This is an important component of any Partnering project, regardless of how often the team has worked together. Ideally, the workshop should be held at a neutral venue and run by an independent facilitator. All the key individuals, from the client to the materials suppliers, should attend and positive feedback be encouraged. The workshop agenda may include defining a mission statement, presenting the concept and brainstorming any potential problems, agreeing a conflict resolution procedure and, possibly, drawing up a formal Partnering charter.

4.05 Project Meetings

Open, inclusive project meetings should be held at regular intervals, chaired by either the client or an independent facilitator. Again constructive feedback should be encouraged, conflicts resolved as rapidly as possible, and positive ideas fed back into the continuous improvement cycle.

4.06 Benchmarking

Competition has a place within Partnering, but it should be used selectively in a manner that encourages enhanced efficiency. Benchmarking should be used as widely as possible to provide a quantitative measurement of delivered value.

4.07 Post-contract Review

All partners should be encouraged to take part in an exhaustive post-contract review, where project difficulties and the delivered solutions can be reviewed as part of the continuous improvement cycle.

5.0 On the Road to Partnering

Despite the interest shown in exemplar Partnering projects like Brindleyplace, and the successful execution of Partnering projects by clients such as Slough Estates, the Rover Group, Boots, SmithKline Beecham, Whitbread, Tesco, NatWest Properties, Southern Water, Staffordshire County Council and many more, true Partnering remains the exception. There are many reasons for this. Some clients believe that cost control will suffer under what they presume to be a less rigorous, less competitive environment. Others are wary of fraud. Some believe that Partnering can lead to under-performing companies being carried. Perhaps more serious is the in-built machismo of the construction industry. Many individuals seem to relish the adversarial nature of the business and see it as a
challenge to impose their will. Even if the management of a company is convinced of the benefits of Partnering, it can be a long hard road to disseminate the message down to the site.

Conversely, many involved in the industry find it more comfortable to be led rather than to lead. The openness and responsibility that comes with Partnering can be off-putting, which tends to reinforce the dictatorial stance of some contractors.

As a result of these negative pressures, coupled with the manifest advantages of Partnering in its broadest sense, several diluted forms of Partnering arrangements are now common.

5.01 Client Specification

This is a common approach of large corporations, especially those based in the USA. Here contractors, subcontractors and systems suppliers work to a highly detailed design handbook. This removes a lot of the potential areas of confrontation from a contract, but does not bring the benefits of positive feedback one finds with true Partnering.

5.02 Preferred Suppliers

Many main contractors operate preferred supplier arrangements, often with up to six subcontractors in each specialist market sector. Such a system provides a lot of the continuous improvement benefits of Partnering and also holds out the promise of secure work flow and long term stability. When undertaken as part of a conventional contract, this arrangement works well for both parties until there is a problem on site, such as cost over-run, time penalty or structural defect. Then the hierarchical power structure reasserts itself and the sub-contractor is often left exposed and vulnerable. However, some companies, especially those with large property portfolios, are developing preferred supplier status. This sees clients outlining build programmes to suppliers, thereby allowing them to plan for fluctuations in demand.

5.03 Supply Chain Clusters

This is really Partnering in microcosm. While Partnering may not exist from top to bottom of a contract, it is not uncommon for certain parts of the project to be delivered by a supply chain cluster operating along Partnering lines. This may encompass a specialist facade contractor and a curtain walling manufacturer, or a structural engineer, piling contractor and steelwork fabricator. These cluster groups can improve standards within their chosen field, but may not be able to make the fullest possible contribution to the project as a whole.

5.04 Partnering Preferred

Some contractors use a commitment to Partnering as part of the selection process, while still awarding the contract on the basis of a competitive tender. The aim is to try and get the best of both worlds, but this process is more likely to end up destroying the trust on which true Partnering flourishes.

5.05 Supply Chain Management

The science of supply chain management is in many ways sympathetic to, rather than an alternative to, Partnering. It involves detailed analysis of the supply chain, rationalising the number of suppliers in each category (based on health & safety policies, training, quality systems certification, financial probity etc.) and setting guidelines for relationships with component suppliers. The aim is to concentrate the workload in fewer companies of proven standards, and to ensure traceability back through the supply chain; the kind of system that the car manufacturing industry has employed for many years. As the usage of factory-finished building elements, such as bathroom pods, grows, this form of contract control is steadily gaining in importance.

5.06 Task-specific Construction Teams

There are also signs that the kind of continuous improvement found by staged Partnering projects is now starting to affect how certain types of building are procured. Teams of designers, contractors, specialist subcontractors and materials producers are emerging who specialise in individual building types, such as hospitals, airports, car parks, hotels, leisure centres, etc. These contracts may, or may not, be run on Partnering principles, but the concentration of expertise and the ability for constructive feedback bring many of the same benefits. BAA, for example, has task-specific groups within its Partnering framework. Some are experts in shell and core or fit-outs, others do retail buildings or tenanted buildings, etc.

6.0 Conclusion

Studies cited by the Reading Construction Forum (4) concluded that project-specific Partnering could result in
cost savings of between 2 and 10%, while strategic Partnering could save up to 30%. The main benefits are effectively summed up by Colin Munce, Procurement Manager, South West Water. “By involving contractors earlier we can not only improve design and buildability, but also reduce lead times and internal cost. The open culture and agreement of mutual objectives means that we have much greater confidence that project objectives will be delivered within budget and programme constraints.”

Martin Rogers, Divisional Director, Kyle Stewart (now HBG Construction) underlines the key point. “Partnering means trust, commitment, openness, integrity mutual goals and objectives, and being responsive. Partnering needs to be client-led with commitment at the highest level.”

Partnering rightly recognises that construction need not be a confrontational business. It provides a vision of a better method of construction procurement. For clients it offers the possibility of higher quality buildings delivered on time at a competitive price. For contractors it offers an end to the time-consuming and expensive tendering process, allowing them to concentrate on their core business of profitable construction management. For architects it offers a clear conduit to a massive pool of expertise, without compromising their design freedom. For subcontractors it provides security and recognition of their expertise, while for material suppliers it provides a means of driving improvement and forging sustainable business relationships.

Partnering is a business philosophy whose time has come. Only hidebound tradition is now holding back its widespread adoption by the construction industry.

7.0 Acknowledgement

7.01 The Author

Joe Simpson, 42, has been a construction journalist for twenty years. He started his career at RCI, and later edited both Building Products and Building Refurbishment before founding his own publishing company of which he is still a director. In recent years Joe has been freelance Technical Editor of Building Design, and founder Editor and Publisher of ECO magazine.

Joe currently works as a freelance journalist, as well as editing Tile UK and a number of industry reports. He also lectures to the RIBA, local authorities and other professional bodies on a range of subjects from sustainable construction to new roofing technology.

8.0 Sources of Information

8.01 Trade Associations and Research Bodies

Centre for Window and Cladding Technology
University of Bath, Claverton Down, Bath BA2 7AY Tel: 01225 826541

Aluminium Federation
Broadway House, Calthorpe Road, Five Ways, Birmingham B15 1TN Tel: 0121 456 1103

Council for Aluminium in Building
(Architectural Aluminium Association, Aluminium Windows Association, Patent Glazing Contractors Association)
191 Cirencester Road, Charlton Kings, Cheltenham, Gloucestershire GL53 8DF Tel: 01242 578278

Glass & Glazing Federation
44-48 Borough High Street, London SE1 1XB Tel: 0207 403 7177
## 8.02 Relevant Standards

<table>
<thead>
<tr>
<th>Standard</th>
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<tbody>
<tr>
<td>BS EN 755</td>
<td>Aluminium Alloy Extrusion</td>
</tr>
<tr>
<td>BS EN 485</td>
<td>Aluminium Alloy Sheet</td>
</tr>
<tr>
<td>BS 1161</td>
<td>Specification for aluminium alloy sections for structural purposes</td>
</tr>
<tr>
<td>CP 118</td>
<td>The structural use of aluminium</td>
</tr>
<tr>
<td>BS 8118</td>
<td>Design Code for structural uses of aluminium</td>
</tr>
<tr>
<td>BS 5286</td>
<td>Specification for aluminium-framed sliding glass doors</td>
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<tr>
<td>BS 4873</td>
<td>Specification for aluminium alloy windows</td>
</tr>
<tr>
<td>BS 5516</td>
<td>Code of Practice for designing and installing of sloping and vertical patent glazing</td>
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<tr>
<td>BS 1615</td>
<td>Method for specifying anodic oxidation coatings on aluminium and its alloys</td>
</tr>
<tr>
<td>BS 3987</td>
<td>Specification for anodic oxide coatings on wrought aluminium for external architectural applications</td>
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<td>BS 6496</td>
<td>Specification for powder organic coatings on aluminium</td>
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<td>BS 4842</td>
<td>Specification for liquid organic coatings on aluminium</td>
</tr>
<tr>
<td>BS EN 12373</td>
<td>Aluminium and aluminium alloys. Anodizing</td>
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<tr>
<td>prEN 12152</td>
<td>Curtain Walling. Air permeability. Performance requirements and classifications</td>
</tr>
<tr>
<td>prEN 12153</td>
<td>Curtain Walling. Air permeability test methods</td>
</tr>
<tr>
<td>prEN 12365</td>
<td>Building Hardware. Gaskets and weatherstripping for doors, windows shutters and curtain walling</td>
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<tr>
<td>BS EN ISO 10077-1</td>
<td>Thermal performance of windows, doors and shutters - simplified method</td>
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<tr>
<td>BS EN ISO 10077-2</td>
<td>Thermal performance of windows, doors and shutters - numerical method</td>
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<tr>
<td>prEN 12412</td>
<td>Windows, doors and shutters. Determining thermal transmittance by the hot box method</td>
</tr>
<tr>
<td>BS EN 1026</td>
<td>Windows and doors. Air permeability test methods</td>
</tr>
<tr>
<td>BS EN ISO 14683</td>
<td>Thermal bridges in building construction. Linear thermal transmittance</td>
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<tr>
<td>BS EN 673</td>
<td>Glass in building. Determination of thermal transmittance Calculation method</td>
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<td>BS EN 674</td>
<td>Glass in building. Determination of thermal transmittance Guarded hot plate method</td>
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<td>BS EN 675</td>
<td>Glass in building. Determination of thermal transmittance Heat flow meter method</td>
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<tr>
<td>BS EN ISO 8990</td>
<td>Thermal insulation. Determination of steady state transmission properties</td>
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<tr>
<td>BS EN ISO 12567-1</td>
<td>Thermal performance of windows and doors - Determination of thermal transmittance</td>
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<td>BS EN ISO 6946</td>
<td>Thermal components and building elements. Thermal resistance and thermal transmittance</td>
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<tr>
<td>prEN 13947</td>
<td>Thermal performance of curtain walling</td>
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<tr>
<td>BS EN ISO 10211-1</td>
<td>Thermal bridges in building construction</td>
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<td>BS EN 1027</td>
<td>Windows and doors. Watertightness test method</td>
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<td>Windows and doors. Resistance to windload test method</td>
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<tr>
<td>prEN 2207</td>
<td>Windows and doors. Air permeability classification</td>
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<tr>
<td>prEN 12208</td>
<td>Windows and doors. Watertightness classification</td>
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<tr>
<td>prEN 12210</td>
<td>Windows and doors. Resistance to windload classification</td>
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8.03 Further Reading

Partnering in the Team
Construction Industry Board
A report by Working Group 12 of the Construction Industry Board

Constructing the Team
Sir Michael Latham
Brindleyplace: A model for urban regeneration
Ian Latham & Mark Swenarton

Trusting the Team: the best practice
guide to Partnering in construction

Partnering in the public sector: a toolkit for the implementation
of post-award, project-specific partnering on construction projects

The Properties of Aluminium & Its Alloys
Guide to the Specification of Windows
Fundamentals of Building Construction: Materials and Methodology
ISBN: 0-471-18349-0

Aluminium Extrusions: A technical design guide
Advanced Uses of Aluminium Extrusions in Commercial Fenestration
Aluminium Structures: a guide to their specification and design
ISBN: 0-471-05385-6
The Practical Design of Structural Elements in Aluminium
ISBN: 0-291-39798-0
Aluminium in Building
Architectural Metals: a guide to selection, specification and performance

Guide to the design of thermally improved glazing frames (guide)
The effect of edge details on heat transfer through insulated panels (guide)
Thermal performance and condensation risk (standard)
The influence of frame design on the thermal performance of advanced

Glazing.
ISBN 0-051-4504-6-x
Glass and Thermal Insulation (technical bulletin)
A guide for the assessment of thermal performance of Aluminium Windows
Glass Fact
The Building Regulations Explained and Illustrated
ISBN 0-632-03234-0
CIBSE Guide A: Environmental Design (weather data)
ISBN 0 900953 96 9
CIBSE Guide C: Reference Design (theory of heat transfer)
ISBN 0 900953 31 4
Heat losses through windows
Windows in Buildings
ISBN 07506 42092
Envelope design for buildings
ISBN 07506 28545

Thomas Telford 1997
HMSO 1994
Right Angle Publishing Ltd 1999
Centre for Strategic Studies in Construction
Reading 1995
European Construction Institute
Loughborough 1997
Aluminium Federation
Aluminium Window Association
Author: Edward Allen
Author: Howard Spencer, AEA
Aluminium Extruders Association
Authors: J Randolph Kissel
& Robert L Ferry
Author: John W Bull
Author: John Lane
Author: L William Zahner

CWCT
CWCT
Solar Energy Society
Pilkington Glass
CAB
Saint Gobain - Solaglas
V Powell-Smith & M Billington
CIBSE 1999
CIBSE 1986
BRE 1993 IP 12/93
Authors: N Abodahad, J Kubie & T Muneer, Butterworth-Heinemann
Author: W Allen, Butterworth-Heinemann
8.04 Kawneer Contact File

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www.kawneereurope.com

London Office
Tel: 0207 409 1422
Fax: 0207 409 1466
www.kawneereurope.com

Technical Literature

- Finishes & Services
- Shopfronts & Framing Systems
- Non Thermal and Thermal Framing Systems
- Door Systems
- 505 Swing Door
- 1200 Series Curtain Wall Systems
- RS-100 Rainscreen System
- Patent Glazing Systems
- 1600 Curtain Wall
- Sliding Windows
- 500 Series Windows
- Econ Windows
- Econ 75 TS Top Swing Window
- Patio Doors