

# Case Study Leamouth North

In late 2007 charlesrichconsultancy assisted Wilson James analyse and propose a strategy for the construction logistics at Leamouth North

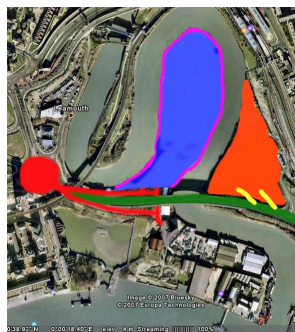
Leamouth North is a major residential development by Ballymore Group on a very confined peninsular site (the former Pura Food Factory) with limited access. It is complicated by the fact that it was not possible to construct basements, therefore to accommodate parking and other ancillary services a three-level above grade podium was required on which are to sit 9 residential towers of between 20 and 28 storeys each.

Charles Rich Consultancy has a strategic alliance with Wilson James, a construction logistics contractor, to provide strategic consultancy services so that Wilson James can then provide detailed consultant services to cover the construction logistics of any development.

Ballymore is a developer which constructs its own developments without the use of a construction manager or main contractor, therefore throughout the consultancy we were in constant discussion with Ballymore's planners and construction managers.

The first task was to analyse the risks and then to see how these could be mitigated. Once the options and strategies had been identified then the logistics of the site could be proposed, including site traffic management, craneage and hoisting locations and strategies, materials handling, location of site accommodation both on site and in the adjacent area and to develop a project implementation plan such that the logistics could be tendered either as a complete package or in specialised packages.

The key to the site (blue in the diagram) was its inaccessibility and its lifeline via the Lower Lea Roundabout; if this was not to be available would the site would be isolated. The site marked in red is that of the access shaft for the construction of Crossrail, putting further pressure on the site's lifeline.



Our proposed strategy to overcome this was to minimise the use of the roundabout and on-site congestion by significantly reducing the amount of traffic needing access to the site.

Our proposals involved the use of a consolidation system, where materials are delivered to a secure warehouse where they are stored and called off by the trades on a just-in-time basis with no more than three days of materials are on-site at anyone time.

This system significantly reduces waste, over-ordering and the need for on-site storage. Our proposals combined this with the use of a marshalling yard where all vehicles requiring access to the site reported, including non-consolidated items such as concrete, structural steel etc. The payloads of the vehicles would be checked and any QA documentation approved and only when this was done and the site was ready to receive the vehicle, including having the craneage and hoists ready and manned for unloading, would the consignment be forwarded to site.

Our proposals included a logistics management strategy, on-site materials handling strategies, including siting of cranes and hoists, and a detailed Logistics Implementation Plan, which could form part of the tender documentation for the logistics packages. We also analysed and made recommendations regarding on-site concrete batching and bar-bending, use of river transport, waste management strategies and on an on-site logistics village.

**The output of the consultancy was a comprehensive report which identified the risks and proposed mitigation measures, provided proposals for the operation of the site and a Project**

# Case Study Stratford City

In 2007 charlesrichconsultancy assisted Wilson James to provide London and Continental Railways with proposals for a site-wide construction traffic management plan for the initial period of construction.

London and Continental Railways was a stakeholder in respect of the moth-balled Stratford City Station, but it also had the land drawdown rights from the Government before the landholdings passed to the individual landholders. These included Lend Lease, which was developing the Athletes' Village, Westfield which was developing Stratford City shopping centre and the Olympic Development Authority. In addition the moth-balled station had to be maintained as the emergency access and egress from the Cross-Channel Rail Link, Network Rail required access to its railway lines and Skanska Grant Rail was constructing the extension to Docklands Light Rail.

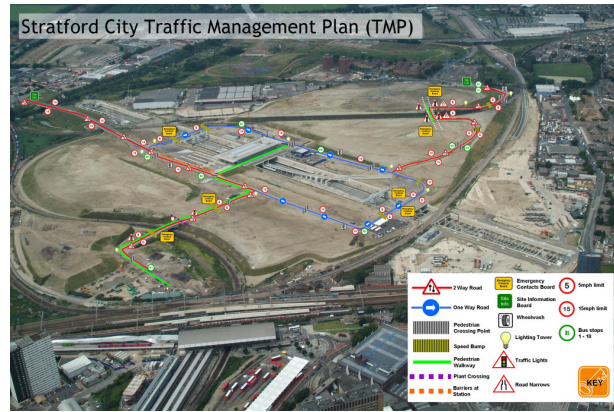
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The scope of the study was to review and make recommendations for a site wide management plan to cover the first six to nine months of on site activities which were primarily earthworks, piling, construction of bridges, substructures and railway-related activities.

In addition to this certain routes for emergencies relating to the existing railway operations needed to be, not only maintained, but to be available at all times.

It involved discussion and understanding of the requirements and likely operations of the various stakeholders on the site and the integration of these in to the overall traffic plan. Inevitably the plan may not have been the best outcome for every stakeholder, so that compromises will have to be agreed so that the plan has the full support of all stakeholders.

The recommendations for the Traffic Management Plan were designed to reduce the potential risks associated with the movement of vehicles, mobile



plant and pedestrians site-wide at Stratford City Project.

This plan also identified an effective delivery management system to cope with the demand imposed at this stage of the project, highlighting recommendations for further implementation required at later stages.

The report also identified the integration of the emergency procedures within the stakeholders' current arrangements.

We recommended that a Central Traffic Management Team (CTMT) be based on the project to implement the Traffic Management Plan and to manage its implementation.

It was clear from the report and group discussion with the stakeholders that a site-wide traffic management plan was needed and that its requirements needed to be implemented consistently across all land/site holdings.

We recommended that, both for management and health and safety reasons, a single organisation needed to take responsibility for it and have the authority to make decisions which can be implemented without question. This was extremely important not only in emergency situations, but in the day-to-day running of the plan.

**The output of the consultancy was a report and recommendations for managing traffic on the site for the period in question and the period beyond, together with a comprehensive Traffic Management Implementation Plan.**

# Case Study

## Gazprom HQ

**In August 2007 charlesrichconsultancy assisted Wilson James in a study of site logistics for Bovis Lend Lease on behalf of Gazprom regarding its proposed new headquarters in St Petersburg**

Charles Rich Consultancy has a strategic alliance with Wilson James, a construction logistics contractor, to provide strategic consultancy services so that Wilson James can then provide detailed consultant services to cover the construction logistics of any development.

The proposed business centre comprised approximately 2m ft<sup>2</sup> of low rise buildings and basement and a 1m ft<sup>2</sup> tower. The basement retaining walls being the edge of the site.

The consultancy involved a visit to St Petersburg to evaluate and produce a report on the possible use of a Logistics Centre (LC) for the construction of Okhta Public and Business Centre Development. During the visit the development site was visited as were two possible sites for an LC. The routes to these sites from the main arterial road were reviewed together with the routes to the development site.

The project was in the early stages of design development, therefore much of the key information needed to carry-out volumetric studies related to programme of key material supplies was not available; however there was sufficient information to establish the need for an LC and recommend a location.

The report examined the factors which needed to be taken in to account and concluded that an LC would be a key factor in the ability to construct the project to cost and programme.

A sound logistics plan and detailed pre-planning will be the keys to the successful realisation of the development. An LC cannot operate in isolation from the on-site logistics, which must be as efficient in materials handling on-site as the LC is in getting the materials to the site. Our experience is that it is absolutely essential that both are integrated otherwise the benefits of the LC will be lost and the investment wasted. We therefore recommended that the on site logistics (material distribution and traffic control) should report to the



LC and be separate from the general contractor.

We looked at various options for locating the LC both within the Okhta Centre site and on the two sites which Gazprom indicated would be available for purchase. We concluded that the site at Site 1 would be best from a technical point of view as it had a number of existing facilities, including access to the national rail network, and would need the least amount of work and offer the greatest flexibility in the future.

The site offered the opportunity to quickly establish concrete batching facilities, cement and aggregate storage and rebar facilities. This would be particularly important as the supply of good quality cement is difficult to secure, therefore a good buffer stockholding would be essential.

However, there were more commercial opportunities for subsequent development of site 2 so that, although it might be more costly and take longer to establish than site 1, in the long term it could give Gazprom a better return.

The report also identified a number of commercial opportunities for exploiting an LC ,although we recommended that these should be regarded as optional.

**The output of the consultancy was a comprehensive report and recommendations for the provision of a Logistics Centre to support the construction of the new headquarters building, which included analysis of requirements and pay back for Gazprom.**

# Case Study Cardiff St David's

## Logistics Implementation Plan.

During 2007 charlesrichconsultancy assisted Wilson James in the preparation of proposal documents and presentations to help them secure the contract for the provision of a comprehensive logistics service for the works. In particular, this input was focused on external and internal access routes, traffic management, vertical transportation of men and materials, the effects of the project phasing on these issues, the use of off site areas for materials storage, marshalling and forwarding and site housekeeping.

Charles Rich Consultancy also has a strategic alliance with Wilson James, a construction logistics contractor, to provide strategic consultancy services so that Wilson James can then provide detailed consultant services to cover the construction logistics of any development.

This scheme is for a major redevelopment in the centre of Cardiff. Supported by a 2 -level basement, the project entails the construction of a large retail centre over 3 levels. Abutting the retail centre on the east side is a large multi – storey car park, and over the retail spaces, mainly along the western flank, are apartments of up to 8 levels above the top of the retail facilities.

On completion, the scheme will provide approximately 90,000 m<sup>2</sup> of retail and residential facilities, 3000 car parking spaces, a number of ancillary facilities such as a new library and a community centre.

There are considerable traffic and operating restrictions on the site, brought about by its location in the centre of Cardiff and proximity to existing retail facilities, cinemas, hotels and the International Arena. In addition, the project abuts an existing retail centre, known as St David's 1, which is undergoing major refurbishment in parallel to the construction of the new centre. As the existing centre remains trading, one of the challenges in the new project is to ensure that the works on the existing centre can be undertaken without undue disruption or be interfered with by the new construction on St David's 2.



The project is under the overall control of Bovis Lend Lease, which is Construction Manager for the management of both St David's 1 & 2 projects.

Within the project scope, there are complex phasing and access requirements to allow access for retail fitting out and end – user requirements, which in turn require the completion and trading of the retail spaces before the residential portions of the works have been completed.

Following the submission of the proposals, presentations and discussions, Wilson James was selected as the preferred logistics contractor for the project. We were then involved in refining the draft proposals, and in particular agreeing access and hoisting arrangement to suit the complex construction handover requirements, to allow the Wilson James team to agree the logistics plan and implement the proposals on site.

**The outputs of the consultancy were access strategies and logistics diagrams and proposals that assisted Wilson James in being selected as the preferred logistics contractor for the project, followed by assistance to Wilson James to confirm the appointment and complete the proposals for workable and efficient access strategies for the works**

## Case Study Technical Assurance Services

**charlesrichconsultancy is an approved subconsultant of Cyril Sweett on a four year framework agreement with OGC buying.solutions to provide technical assurance services to public and third sector clients.**

Appointments can be made through the OGC Buying Solutions Technical Assurance Services framework agreement with Cyril Sweett without the need to go through the time-consuming OJEU procedures.

### Services

Through the framework the following services can be provided:

- Business case development
- Procurement, contract and OJEU advice
- Management support
- Project and programme reviews
- Performance measurement and benchmarking
- Post project evaluations
- Project monitoring
- Independent client designer role
- Audits
- Technical building inspections
- Setting-up and administering of measured term contracts
- General independent advice

### Benefits

**Saves time:** The framework agreement was awarded after rigorous EU-compliant procurement process with OGC buying.solutions, so there is no need to place notices in OJEU.

**Saves money:** It is estimated that this procedure saves 77 days and associated costs in buying the services.

**Makes buying easy:** Urgent requirements can be called-off quickly and easily, safe in the knowledge that we have passed the OGC's rigorous quality assessment.



### Who uses OGC buying.solutions

Any UK public sector contracting authority or service provider acting on its behalf can utilise OGC buying.solutions framework agreements including:

- Central government departments and agencies
- Local government
- Education
- NHS
- Non-departmental public bodies
- Prison service
- Police
- Fire service
- Charities and not for profit organisations
- MOD

### Calling-off our Services

All you need to do is contact either Charles Rich or Charles McSweeney who will help you make the arrangements:

**Office Of Government Commerce**  
**[www.ogcbuyingsolutions.gov.uk](http://www.ogcbuyingsolutions.gov.uk)**  
**e [custcare@ogcbs.gsi.gov.uk](mailto:custcare@ogcbs.gsi.gov.uk)**  
**t Customer services desk: 0845 410 2222**

**Charles Rich**  
**Charles Rich Consultancy**  
**e [charles@charlesrich.eu](mailto:charles@charlesrich.eu)**  
**t 020 7520 9277**

**Charles McSweeney**  
**Cyril Sweett**  
**e [charles.mcsweeney@cyrilsweett.com](mailto:charles.mcsweeney@cyrilsweett.com)**  
**t 020 7061 9121**

**The framework agreement provides a quick, easy and straight-forward way of buying technical assurance services in the public sector without the need for lengthy EU procurement procedures.**

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