



RAIL



About Us



EWL is an Engineering Company which specialises in Project Management, Engineering and Infrastructure Management Consultancy

EWL is managed by experienced Directors, and all of them have more than 30 years experience in Design and Construction of Civil Engineering and Building Projects and Project Finance.

EWL has its own personnel specialising in Project Management, Design Management and Construction Management. The company profile of EWL and its management capabilities is provided on our web-site, which outlines the specialist nature of EWL within the railway environment.

This includes the following:-

- Project Management and specialist Railway advice to non rail clients.
- Design, Build, Finance, Operate and Transfer (DBFOT) of Infrastructure Projects.
- Strategy and Planning advice.
- Project Finance.
- Green/Sustainable /Carbon Free advice.

In addition we also undertake the following specialist services to the other sectors of the engineering industry.

- Project Management
- Independent Audits
- Project Reviews
- Due Diligence
- Supplier Competency Checks
- Joint Venture Partnerships

Back-up and Support Staff

EWL has access to all Standards, Codes of Practices, Eurocodes, Research and Technical papers available in Europe, U.K., and U.S.A. which usually suffices for most projects undertaken by the firm.

EWL has also formed associations with long established large firms to enhance it's capabilities of providing total Client satisfaction irrespective of the size of the projects which may be undertaken.

Joint Ventures / Collaborations / Strategic Alliances / Partnering

As required, EWL will form Joint Ventures/Collaborations/Strategic Alliances with other specialist organisations to ensure that any project undertaken is resourced with the high level of professional staffing required, to back up and complement its own resources, This provides any Client with a quality product to the prescribed specialist specification, including on DBFO, BOOT type of projects.

Sub Consultants

If required, EWL has its own sub consultancy agreement which applies to any sub consultant it employs to undertake any section of a project. This ensures that the Client receives the end product to the prescribed specification and that control of the Project is maintained and undertaken by EWL



Project Management

- Initial Strategy Stage
- Scheme Identification Stage
- Feasibility Stage
- Planning Stage
- Funding Stage
- Design Stage
- Construction Stage
- Operation Stage

Specialist services in:

- Strategic Advice
- Planning Management
- Project Management
- Design Management
- Commercial Management
- Construction Management
- Safety Management
- Quality Management
- Environmental Management

EWL has a specialist Project Management Division with the experience and resources to undertake effective project management on behalf of Clients on a wide range of civil engineering and building projects for all schemes, from scheme identification stage through to commissioning.

EWL's project management personnel are suitably qualified and experienced staff with the necessary enthusiasm and drive to ensure the satisfactory completion of any type of project. Back-up facilities are available whether the management services are based in the head office or any of the U.K branch offices.

Having been involved in so many large multi-disciplinary projects EWL has built-up detailed and efficient systems for organising, planning and costing of any project and for controlling their performance. These systems combined with all of EWL undisputed design and construction supervision capability in a wide range of multi – disciplinary projects, including civil, structural, environmental and architectural projects makes EWL eminently capable of providing project management services on any project no matter how large or small, simple or complicated.

The project management role in some occasion has covered only in-house study and design activities and subsequent site supervision using the wide range of expertise in the technical divisions of EWL. However, EWL's project management role can also cover the co-ordination and direction of a team made up of external specialities and sub - consultants for large development projects.

On certain large and diverse projects on which the Client has appointed several consultants, each being responsible for administration, design and supervision construction of a major but distinct portion of a project EWL as a Project Manager, have co-ordinated the programme and interfacing of all the individual Consultants and Contractors, including acting as a Management Contractor.





Transport Consultancy

Strategic Advice

EWL offer our clients informed strategic advice. We believe that our specialist railway team, in particular our high-speed rail experience, gained over the past 50-years gives us the ability to make in-depth, objective and trusted judgements. We continue to advise governments and the rail industry throughout the world on their strategic rail investments.

Transportation Appraisals, Business Cases and Funding Options

Securing the funding and investment for transport solutions require to demonstrate value for money and financial sustainability. For public and private sector projects, value for money is obtained by investing in measures which best meet social, economic and technical requirements which are specific to that project. We provide the strategies, analysis of current problems and opportunities, by demonstrating a fit with policy aims, including risk identification.

Our team includes experts in stakeholder engagement; transport planning, modelling and forecasting; economic, safety, environmental and financial analysis; scheme design technical assessments, costing; and business case preparation.

EWL have been advising Clients and have expertise to help clients secure funding and approvals for a large number of schemes and programmes including Local Sustainable Transport Fund applications, High Speed Rail, National commuter rail networks, major transport schemes, and Metro-link projects.

Public Transport Development Strategies and Feasibility Solutions

Our transport planning and engineering skills are combined on all of our projects to develop evidence based public and private transport development strategies; balancing the requirements of the corridors served, policy goals and costs.

EWL offer integrated teams with expertise in project management, transport modelling and planning, demand analysis, stakeholder management, public transport scheme design, innovative engineering and operations, cost estimation, economic and financial appraisal and business planning.

Transportation Planning

We work with country governments, local authorities, regions, districts, cities and to support their aspirations to develop excellent transport networks in order to accommodate the world's growing populations, support economic vitality and most importantly protect the environment.

Our approaches include stakeholder and public consultation; transport modelling and analysis; capacity analysis, and engineering feasibility, design and costs.

Finance of Transportation Projects

EWL have a team of specialist who advise on PPP/PFI projects. EWL have been involved in numerous International Projects which required Finance. The team were responsible for creating the SPV and then provided the service required to ensure Financial closure of BOT, DBFOT schemes.

Scheme Development Planning and Traffic Engineering

Optimal traffic and transport engineering designs improve the efficiency and accessibility of our towns and new developments; and can be essential in securing planning approval. We design transport solutions to meet the needs of all cars, service vehicles, public transport, pedestrians and cyclists.

Our services include estimating trip generation of new developments, junction analysis and design, parking and pick-up/drop-off designs, internal circulation layout, signing strategies and temporary traffic management advice.

Our clients include governments, councils, developers, etc.

Transport Consultancy



Built Asset Optimisation

Improving the profitability of a transport business relies on understanding what customers need and how much they are willing to pay; and understanding the demand, cost and revenue implications of an investment.

EWL offer integrated teams with expertise including customer satisfaction surveys, willingness to pay studies, financial analysis, stakeholder engagement, scheme design and cost estimation, modelling and forecasting, risk analysis and business case development.

Our clients include governments, National rail and highway agencies, train operators, toll road concessionaires, and international institutions.

Transport Research & Surveys

Understanding travel patterns, preferences and behaviour helps transport providers to better provide for transport demand, increase market share and revenues, and meet customer expectations of quality of service.

Our teams have expertise in household and traveller surveys, traffic and passenger count design and analysis, travel time surveys, customer satisfaction surveys, attitudinal studies, and willingness to pay research (including Stated and Revealed Preference).

Forecasting Transport Demand against Capacity Modelling

Forecasts of transport demand can be useful for host of applications including developing transport strategies to serve growing populations; tackling congested roads, stations and public transport services; optimising public transport; improving revenues from transport provision; securing financing and funding; designing new infrastructure; assessing and tackling local air quality and noise problems; and reducing the carbon foot-print.

We advise on proportionate approaches and employ a range of modelling techniques including highway and public transport modelling, micro-simulation, variable demand models, pedestrian simulation, and econometric analysis.

Engineering and Environment

We deliver engineering and environmental expertise for rail schemes that are both feasible and affordable. We have advised a funding partner of Rail Link Engineering Ltd, the project management and engineering team which delivered HS1 on time and within budget. As a member of this consortium we managed the infrastructure design and construction and oversaw the construction of tunnels, bridges and viaducts, rail track and overhead catenary, in-cab signalling, power supplies and state-of-the-art telecommunication systems. Once built, we also managed the detailed programme of testing and commissioning the line.

Freight & Logistics

Freight services and logistics are essential to economic well being. We assist client to answer questions such as:

- What freight and logistics infrastructure is required?
- How to manage the interaction of goods and passengers traffic?
- How to reduce the environmental impact of transport?
- What are the financial, social and environmental impacts of potential investments?

Our services include logistic surveys, freight modelling and forecasting, socio-economic and environmental impact appraisals, operational optimisation, and freight infrastructure feasibility studies.



Feasibility Studies



EWL Rail is a division within EWL which specialises in Railway Feasibility and design engineering. It has many years expertise in railway engineering both in the U.K. and overseas. It has therefore built up a reputation equal to any leading Consultant in the world and can undertake projects large or small of this type with confidence and has successfully project managed numerous schemes.

For the best advice on any project the Client should always contact EWL Rail first.

EWL Rail will structure the Clients requirements appropriately and by undertaking a feasibility study, advise on the best options to undertake for each project that fulfils the Client project requirements.

EWL Rail will Project Manage all projects from “cradle to grave” and where appropriate utilise the resources available within the rest of the EWL Group to support the projects.

Commercial issues, Cost control, project finance and procurement are EWL Rail’s specialist areas and this will be developed with each Client on a “project by project” basis.

Change management is a very difficult area for all Clients. EWL Rail can manage this on behalf of the Client.

A properly produced feasibility report could save up to 20% of actual project costs.

Real benefits to Client:

- Excellent Strategic Planning
- Economic Assessments and appraisals
- Specialist advise on Contracts/Legal issues
- Specialist training for in house usage by any Client
- Independent liaison between Network Rail, TOC, Freight Operators, SRA, DfT, HMRI, ORR and other railway bodies.
- Risk Assessments
- Value Management
- Property issues / Station change
- Asset Manage Landlords Consent Issues
- Collaborative working and enhancing partnerships and Joint venture strategies.





Surveying

EWL provide surveying services to the rail industry. The railway is a vital and expanding sector in the UK and at EWL we offer fast, efficient, reliable and flexible schemes of work, utilising the latest technologies. We can produce fast and accurate position data for clearance surveys, as well as cant, gauge and rail position data for input to rail design packages. With a team of PTS (Personal Track Safety) trained staff, we are authorised to work in restricted areas and have proven safe and appropriate methods of work.

Whether it be a topographical survey of a rail yard, a building survey of a station or full operational railway details, we provide clear and concise profiles, models and drawings in both 2D and 3D formats.

EWL utilize the very latest survey instrumentation and software to provide detailed and clear survey data, efficiently and most importantly cost effectively. We also undertake NDT surveys and reporting as required

Maximising our partnership with other survey partners we also provide:

As-Built Surveys for Sewer Adoption, Sections 102, 104 & Section 185 to the standard detailed in the latest revision of Sewers for Adoption. This includes providing drawings to the required standard and colouring schedule, supplemented with pumping station land transfer plans and manhole record cards when required. We have extensive experience within the Anglian Water, Thames Water, Severn Trent, Southern Water and United Utilities regions.

As Built Surveys for Highway Adoption, Section 38 & Section 278 (work within existing highways) Surveys coloured to the local authority standard. We have provided surveys within most adopting authority areas and have an extensive database of the required colouring schedules.

Public Open Space Surveys. We provide as-laid plans of the public open spaces detailing extent of the planting, new tree planting, footpaths, play areas, etc. All plans are provided to the standard required by the adopting authority, along with area calculations if required. We are also regularly asked to cross reference POS boundaries against those agreed with Land Registry to provide confirmation of the final as-built position.

We can also provide land transfer plans, deed of grant plans and highway inventories. Whatever the local authority as-built requirement, EWL has the experience and capability to provide it. All our staff experienced in providing as-built surveys, are CSCS approved and have current Confined Spaces certification.



Design



EWL Design Consultants Specialists in:

- Geotechnical Investigations
- Traffic Surveys
- Engineering Survey
- ACAD Design
- CGI Graphics
- Structural Design
- Architectural Design
- Mechanical and Electrical Design
- Specialist Railway Design
- Sustainable Design
- Renewable Energy Design
- Technical Approvals
- Detailed design and in-house checking
- Preparation of 'Approved for Construction' documents including drawings and specifications.

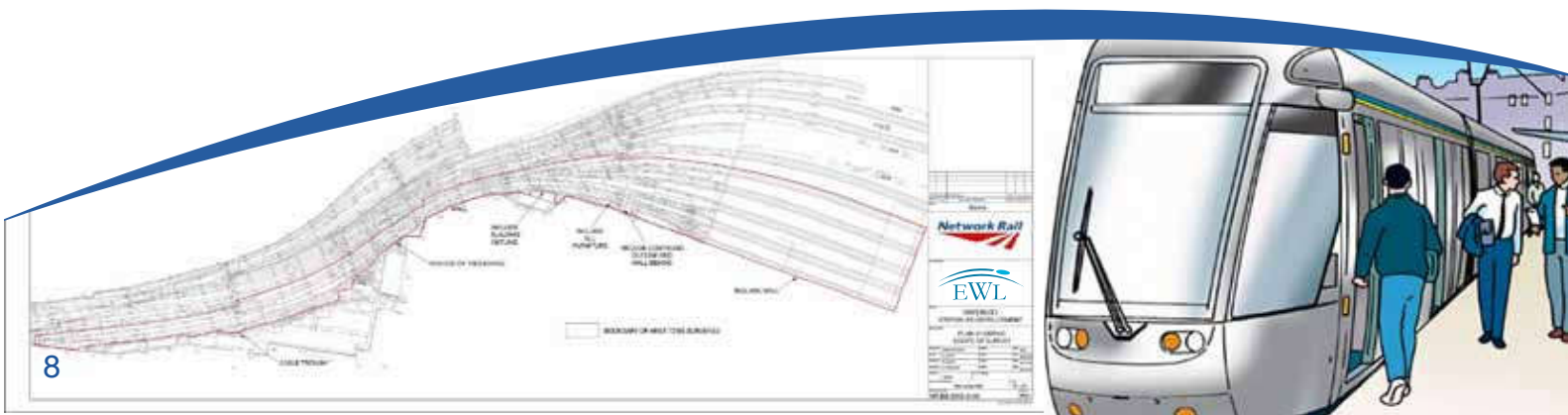
EWL – Rail division plays a lead role in all form of engineering consultancy services in the following disciplines:

Project Management, Economic Appraisals, Construction Management, Civil, Structural, Permanent Way, M&E, Electrification / Plant, Signalling, Geotechnical, Surveying, Quantity Surveying etc. We have access, knowledge and experience of railway standards and compliance issues.

We use the latest technology available to us to ensure our clients receive a dynamic and technologically advanced service. Such as drive through software that is used when designing a Multi Storey Car Park, which allows the client to experience, the use of the car park before the design is finalised.

3D modelling also allows us to provide planners and interests groups with drawings to assist them in understanding what the end product will look like.

Our experience of railway projects include, station and platform works, bridge reconstruction and refurbishment, depot and siding works, maintenance works to signal boxes, re-signalling schemes, design for temporary works etc.



Sustainable and Modular Design

At EWL our bespoke eco modular products are among the industry's most lightweight yet robust offerings, reducing excavation and material requirements. In addition, our team will investigate and recommend layouts and materials that provide exceptional quality and cost-effectiveness with a minimal impact on the environment.

Our focus extends to achieving sustainability and efficiency throughout any of our projects. This involves analysing and implementing such solutions as lighting, fuel generation, thermal heating, alternative power sources and recycling grey (rain) water. Beyond the quality and sustainability of our products, we deliver whole-of-life costings that offer generous cost-savings over time.

Any of these solutions can be provided individually or in any combination, to ensure the best solutions are provided for every project we undertake.

Some of our key specialist services are:

- Energy Statements
- Energy Efficiency advice
- Thermal Modelling
- Code for Sustainable Homes (CSH) & BRE Environmental Assessment Method (BREEAM)
- Energy Performance Certificates (EPC's)
- Display Energy Certificates (DEC's)
- Sustainability Audits for all assets & buildings
- Building Performance Monitoring
- Ecological Investigation

Another example of our experience is the Heat Exchange system we have developed with our waterproof suppliers. This allows us to use the heat generated on the top deck of our multi-storey car park to either COOL or HEAT the structure.

Our modular and eco sustainable design and construction team are currently involved in many renewable energy projects and we have developed a number of unique solutions which are suitable for our Railway Clients, namely:

- Permanent demountable modular Car Parks
- Modular Platform, canopies, stairs
- Modular stations which includes all eco-technology and power generation.
- Modular footbridges

EWL at Ideal Home Show The Eco House is the central feature of Hall 2 at the show, highlighting the future of living in a way that is also friendly to the environment.

For almost a quarter of a century the Daily Mail Ideal Home Show has highlighted the importance of green topics such as energy conservation and recycling. At the 2008 Centenary Show many of these ideas are taken a stage further in the Eco House.





High Speed Rail

Inter City Rail

EWL have a team of Technical Specialists who are advising on all engineering aspects of High Speed Rail projects worldwide and have been assisting Governments with strategic advice and providing them with support in preparing requests for tender proposal documentation. Our team do not possess any allegiance to any of the world's major suppliers of High Speed Trains and can therefore provide a truly independent and impartial service to our Clients. EWL have also been advising other technical design teams on the veracity of their solutions as well as reviewing designs from numerous other firms to ensure best practice is obtained on all these projects.

We are involved in:

- Infrastructure projects
- Design and construction of railways
- Leasing and financing
- Health & safety issues
- Real estate and construction
- Rolling stock and depots
- Planning and environmental issues
- DBFOT/PPP/PFI projects

Our rail team has a wealth of expertise in advising on all technical aspects of the rail industry. We act for a spectrum of clients and work together with legal and financial organisations to create tailor made techno-commercial solutions for each High-Speed Rail Clients, – both in the UK and overseas. We have a particular interest in High Speed Rail projects overseas but have also been working on the HS2 project.

Maglev

Maglev is a benchmark in the field of high speed. It has 30 years' experience in the business, gained initially in France with the launch of the first TGVs, and later developed and enhanced through its many contracts around the world.

For 30 years EWL has planned, designed and constructed high- speed rail networks throughout the world, including projects in France, Italy, Spain, Morocco, Ukraine, Saudi Arabia, Iran, China, South Korea, Taiwan, USA, Mexico and the UK.

From the strategic to the detailed, we will advise governments and project promoters on the business case for the type of high speed rail investment required for their country. We will act as a project partner to help deliver high speed rail from the planning and design to the construction phase.

Our experts will set the principles that determine the complex design of high speed rail infrastructure, they will recommend the appropriate technology required to operate high speed trains and our engineers will manage the project's construction.

Our dedicated high speed rail team's knowledge base extends to signalling technology, cab based telecommunications, power supply, the design and construction of tunnels, bridges and viaducts and rail service planning that are both feasible and affordable. We continue to draw upon our experience gained from the planning and development of different countries requirements.



Medium and Regional Rail



Medium Trains

The commuter trains are in response to the need for a means of transport that is fast, safe, profitable and eco-friendly, with the capacity to transport a large number of passengers.

Interior design solutions include a number of seating layouts, cars with cafeteria or vending machine areas, the number of toilets and variable space for luggage and bikes, depending on each customer's requirements. This range of possibilities provides an outstanding service for end users, who can enjoy the latest innovations in comfort and safety.

Based on the success of the family of low floor trains, this offers customers considerable flexibility, permitting variable configurations in addition to an exterior and interior design tailored to their requirements.

This offers flexible solutions for a closer, environmentally friendly world.

Regional Trains

Railway systems that are efficient and eco-friendly can help to improve the competitiveness of the regions.

EWL is committed to regional development within the rail sector, offering an extensive range of high performance regional trains that are able to offer some highly competitive traveling times for medium and long distance services.

Most regional trains are designed with Passenger comfort in mind. All trains feature the very latest safety technology whilst meeting the most exacting interior design specifications, to operate on medium and long distance routes, day and night.

Locomotives

EWL has a long-standing tradition in the design and supervision of all types of locomotives for different track gauges:

- **Electric locomotives**
- **Diesel locomotives**

Any locomotives can be fitted with a special bogie system which can run on different track gauges, indistinctly and fulfil the kinematic design requirements have been assessed by EWL.





Metro, LRV and Trams

Metros

Millions of people across the globe use the metro as a means of transport for getting around each day. The cities of the future require urban transport solutions that are able to guarantee punctuality and travel comfort.

No two cities are the same. For this reason, metro solutions are specific to each customer and infrastructure.

We have been advising on many fully automated metros, which do not require the installation of a driver's cab or crew on board during operation. Each day, the metro solutions move millions of users throughout the world. In this way we have helped improve intercity traffic in cities such as London, Madrid, Barcelona, Brussels, Rome, Washington or Sao Paulo, by making it faster, safer, cheaper and environment-friendly.

Monorail

Monorail solutions, are in response to the need for mass passenger transport in big cities. This driverless system offers some exceptional economic and operational advantages, being a less costly construction and maintenance system, fitted with rubber tires for a higher traction performance.

Modular solutions, offering different configurations based on the requirements of each particular customer have been proposed. This fast, punctual transport system is able to move a large number of passengers on each journey, thanks to its extensive areas for standing passengers.

Tram-Trains

The strategic development of cities and the need to link them to the neighboring towns and villages has led to the creation of new tram-train transport solutions. These units not only run on the city's tram lines but also make use of the commuter line infrastructure to link the city to other urban areas.

On the other hand, a number of urban transport authorities, such as the North American ones, are demanding articulated units with greater performance characteristics than LRVs and low-floor trams. These have been successfully commissioned in cities such as Pittsburgh (USA), Sacramento (USA), Amsterdam (Holland) and Monterrey (Mexico).

Trams and Light Metros

Today light rails systems are becoming ever more important in cities around the globe, as they represent a mobility solution that helps reduce traffic congestion problems, offering passengers a fast, punctual and sustainable means of transport.

With their avant-garde design and flexibility trams give each city its own identity.

Trams meet the most exacting requirements with regard to eco-design and accessibility, blending into the urban environment whilst maintaining a high performance level.

With our long-standing experience in the design and supply of urban solutions, we have been involved with the development of an innovative mobility concept called ACR for the catenary-free operation of trams.



Metro, LRV and Trams



Light Rapid Transit

The many technical, economic and environmental advantages of the modern tramway have inspired the development of major projects over the last twenty years.

The renaissance of light rapid transit (LRT) in Western Europe began in the 1980s in France. Since then, adoption of LRT by cities of all shapes and sizes around the world has continued unabated. There are now 170 LRT systems in Europe alone, and nearly 100 in construction or planning. It's no wonder, as LRT offers a viable transport solution that helps make cities cleaner, greener, more accessible, and more attractive to live and work.

EWL has played an integral part in the development of LRT throughout the world, providing extensive knowledge and experience in project management, design, planning, technical advice and assistance to scheme promoters. Light rapid transit or trams have been integrating communities throughout the world using new and reconditioned infrastructure.

In Mulhouse, in the Alsace region, some of our team were commissioned to project manage the construction of the first light rail system to interconnect with conventional railway lines. The Mulhouse Tramway has four lines, all with extension capacity.

Like many cities that had abandoned the tram in the 1960s, Strasbourg was forced by pollution and congestion to reconsider the tramway in 1990s. We identified improving the airport service, important for the European Parliament, as well as integrating walking, cycling and car access.

Bus rapid transit

Guided bus system offers medium-sized towns and suburban communities an efficient and economical alternative to tramways on rails.

Bus rapid transit (BRT) has seen a boom in recent years, most likely due to its ability to provide a high performance transit service that can be integrated easily and flexibly into urban areas at relatively low costs.

BRT solutions come in a variety of forms including guided light transit systems, electronic guidance system vehicles, optimised berthing solutions, modern trolleybuses with or without guidance systems and hybrid drive systems.

Our aspirations for continual innovation means that we have kept pace with all the different BRT technologies. We have advised several towns on BRT solutions and are the only engineering company that has experience in all of the different guided systems.





Car Parks

The demand for sufficient car parking is an ever-increasing burden being placed on retail centres, commercial public and private sectors and industrial development providers whose primary concern may not necessarily be associated with parking. With over 30 years experience of assisting clients in overcoming parking problems, EWL can offer a turnkey service including finance and management for your car parking needs.

In advising our clients on any car parking issues EWL's aims are to promote the following services:

- Refurbishing and reconfiguration of existing car parks
- Provision of additional and extra spaces utilising user friendly designs
- Provision of the most appropriate Car Parks solution for a specific site
- Value for money analysis, business cases, feasibility and optioning reports
- Project surveys, topographical, ground investigation, services, asbestos, etc.
- Undertake all site surveys with in-house team
- Project Management
- Outline and detailed designs
- Detailed design and tender documentation
- Construction - ensuring minimal disruption to existing site operations and MMC
- Safety and ease of use
- Contract, programme and cost management
- Minimal disruption of existing site operations
- Health and safety management, risk and value management
- Solutions providing low disruption to the local environment
- Environmentally sustainable construction solutions using MMC
- Provision of finance if required to facilitate clients needs
- Operate car parks

EWL has a team of Multi Storey Car Park (MSCP) specialists. We also have a unique permanent / demountable solution which may be suitable for some MSCP.

With our funding partners we also offer financial solutions for schemes, which allows clients to use their funding for other projects.



Railway Developments

EWL have many years experience in Railway development project. Our personnel have experience on projects such as:

- Great Eastern Hotel
- Broadgate
- Paddington Basin

and many smaller railway property developments.

As specialist development managers we can be entrusted to undertake any Railway Development project from inception through to completion.

EWL also invest in select projects where by creations of an SPV we can bring various partners that are required for the selected projects.

EWL also sources funding for projects which require it. On securing funding for such projects, EWL undertakes the management of the development project from securing the project through to operation.

We also undertake additional specialist railway activities such as

- Landlords Consent
- Station Change
- Lease agreements
- Development Agreements
- Train operating company (TOC) Liaison
- Technical Approval and
- Asset Protection

We also work in partnership with other developers if any scheme require it.



We provide the following, but not limited to, services to the rail sector:

Management Consultancy

- Corporate strategy
- Organisation development
- Business plans
- Investment appraisals
- Profit enhancement plans
- Human resource assessments
- Health and safety audits
- Sales and marketing
- Business process re-engineering
- Information technology advice
- Due diligence
- Benchmarking
- Outsourcing
- Facilities/Estate management
- Procedural handbooks
- Training strategies
- Training course facilitation
- Dispute resolution

Project Management

- Developing the project brief
- Strategy and feasibility
- Estates review
- Options appraisal
- Business case
- Funding submissions
- PPP/PFI advice
- Team building and appointments
- Design management
- Programming
- Cost control
- Contract management
- Value management
- Risk management
- Contract and procurement
- Employer's agent
- Fund monitoring
- Completion and handover

