

## KINGS CROSS END OF PROJECT REPORT

### OCCUPATIONAL HEALTH PROVISION

#### OVERVIEW

King's Cross Station has undergone a £400 million investment funded by the Department for Transport and Network Rail.

The project involved building a new western concourse, three times the size of the current concourse area and improved access to services on the underground, the new Thameslink Station and domestic and international services at the adjoining St Pancras International Station.

The work has included:

- Construction of the new Western Concourse
- Refurbishment of the roof of the engine sheds with the removal of lead paint and replacement of all the glass both in the roof and end walls.
- Refurbishment of the Victorian buildings in accordance with strict guidelines laid down by English Heritage.

The Principal contractors on the Project have been:

Vinci	-Overall project management and construction of the western concourse and refurbishment of existing buildings
Kier	- Refurbishment of the main train shed roof
Osbourne	- Masonry cleaning and refurbishment of the suburban train shed roof.

#### OCCUPATIONAL HEALTH PROVISION

Duradiamond Healthcare were appointed to provide occupational health services on site from May 2011 to the completion of the project in May 2012. Duradiamond Healthcare has extensive experience in providing occupational health on major construction projects which include the award winning services on Terminal 5 and the Olympic Park.

The service provided was:

- One full-time nurse, Monday to Friday 7am to 4pm
- Occupational Health Physician 2 days a month
- Medical room and equipment

#### STRATEGY

The occupational health strategy consisted of 3 main focus areas:

1. **The Workplace**- minimising the effects of hazards in the workplace on workers health.

The identified health hazards were:

- |                        |   |
|------------------------|---|
| a. Lead                | - from lead paint removal.                              |
| b. Noise               | - from normal construction activities                   |
| c. HAVS                | - exposure to vibration is common in many tasks on site |
| d. Respiratory hazards | - from dust & chemicals                                 |
| e. Skin sensitizers    | - from a range of work practices and substances used    |

As well as advising on minimising workplace health risks, occupational health services also provided on-site health surveillance to provide assurance on the quality of the controls in place and to meet statutory requirements.

2. **The Worker** – recognising and managing the effect of workers' health with relation to their work.

This included:

- a. Pre-placement Assessment - Medical review to ensure workers are fit to undertake the job they are employed to do, especially safety critical tasks.
  - b. Clinical Treatment – to treat illnesses and injuries so that workers can seek help early and minimise their time away from work.
  - c. Case management – to help manage workers with medical problems within the workplace.
  - d. Health surveillance
3. **Wellbeing** – using the opportunity to help workers improve their own health by health promotional activities and access to health checks.

## MEASURING IMPACT

The impact of the service has been measured using the iMAP system for continuous improvement. This identifies the occupational health provision into 5 categories.

1. **Appreciation** - Recognition that there are occupational health needs which need to be addressed but there are no programmes and policies in place as yet.
2. **Development** - Procedures and Policies are being implemented across the business but not all areas are currently compliant or response coherent.
3. **Compliant**- Policies and processes are in place which meets the legal requirement for occupational health (OH).
4. **Good OH Practice** -Policies and processes are the norm and management and employees accept that consideration of OH issues are an accepted business requirement. KPIs and OH reporting is routine; results are analysed and programmes are in place to ensure continued improvement.
5. **Leading OH Practice** - OH standards are enshrined within the business. OH metrics are recorded and reported on and reviewed regularly by the Management Board. It is a contractual requirement that all sub contractors meet the minimum OH standards.

When Duradiamond started on site an initial review was made of the practice in the areas of fitness for work, health surveillance, treatment services, emergency response and wellbeing and the overall measurement for the project at the time is shown below:



This gave a framework from which a programme could be put in place. The interventions under each type of OH provision are described below.

**Fitness for Work** – Ensuring workers are fit and safe to undertake the work they are employed to undertake.

- All new workers starting on site went through a medical assessment.
- The nurse attended every induction session to ensure all new workers were captured in this process.
- To the end of April 2012, 4699 pre-employment assessments and 150 safety critical medicals had been undertaken.
- OH redesigned the fitness for work certificate and the process to ensure the manager, principal contractor and the employee were aware of the fitness of the individual to undertake tasks and any restrictions which were required.
- Over the period of OH involvement there was an increasing acceptance of the importance of ensuring fitness for work by principal contractors, contract companies and supervisors. It was also well received by the workforce who understood that the reason for this was to enable them to work safely and help them to manage any medical problems identified.

**Health Surveillance** – the statutory requirement to undertake appropriate surveillance for health effects where the individual is exposed to workplace hazards.

- The provision of the service on site led to an increased uptake of surveillance and so better legal compliance.
- A total of 852 health surveillance assessments were undertaken over this period.

- The provision of on-site services saved time away from the worksite and saved costs to companies.
- There was an extensive lead surveillance programme in accordance with the Control of Lead at Work Regulations (CLAW) due to the lead removal work. The results of the blood lead testing showed that the controls were effective and that no one exceeded the action level.
- The nurse also made these services periodically in the evening to capture the nightshift as well.
- Through health surveillance, talks and literature, the awareness of health hazards in the workplace has been raised.
- A “Strongman” competition was run to identify work related upper limb disorders. From this there have been over 150 Hand Arm Vibration (HAVS) assessments undertaken with a small number being identified as having HAVS. The development of these individuals’ condition has been historical through working in construction and, as this is the first time they have had HAVS assessment.
- OH trained supervisors in Tier 2 HAVS assessment and to be skin surveillance monitors so that the surveillance can continue after this project.

**Treatment of Injury and Illness** – to ensure that workers can be seen promptly and get treatment and advice to minimise the time away from work.

- A “drop in” treatment service for all workers for any kind of injury or illnesses.
- 435 illnesses were treated with the majority being able to return to work straight away.
- The nurse has been able to prescribe certain medications such as antibiotic and pain killers which have helped individuals to be treated early, remain in work and reduce the time away from work for seeing their GP.
- The treatment service also picked up works accidents that might otherwise not be recorded.
- The provision of a treatment service saved 4671 direct hours to the project. This is a conservative estimate and may be double this figure taking into account that if an individual has to leave site to attend hospital they are often accompanied and, if that person is vital to the work then this may delay others from proceeding in their absence.

**Emergency Response** – ensuring all the first aid and emergency response are in place.

- The nurse provided additional medical resource on site to attend to emergencies with the ability to defibrillate, provide oxygen and intravenous access.
- Co-ordination of medical response and ensuring that the (RVPs) were known to London Ambulance Service to ensure the speed of their response.
- Defibrillation training was provided to one of the Principal contractors.

**Wellbeing** – to provide advice and practical support to help workers improve and manage their health.

- Comprehensive programme of work and non-work related health topics was delivered by posters, leaflets, tool-box talks, meetings and during safety breakfast briefings.
- There was a very good response to these promotions which were well received and the uptake was good.
- There have been 445 mini-health checks checking cardiovascular risk factors such as cholesterol and blood pressure.
- Where possible these activities aligned with other programme safety initiatives.

### **Additional Benefits of the OH Service:**

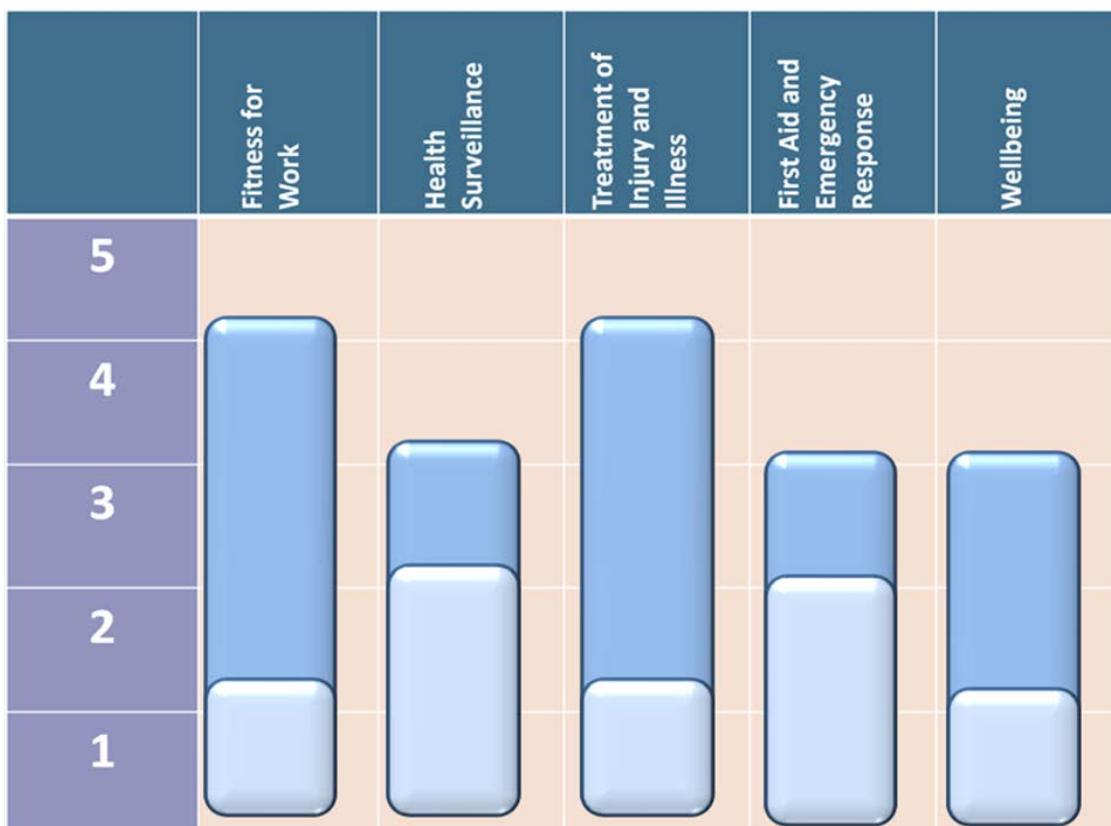
- There was very good engagement of workforce
- Workforce felt valued and cared about.
- There has been a good level of trust built with medical staff on site both from the workforce and Principal contractors.
- The provision of OH services on site has allowed good access to expert advice.
- Kings Cross Rail Project Team has provided a model OH service for contractors to consider emulating in the future.

### **END OF PROJECT REVIEW**

Reviewing the progress at the end of the project there had been improvements in all areas with Fitness for work and treatment services showing the highest attainment.

This is a significant improvement in the level of provision and understanding of occupational health in such a short space of time and the engagement of Network Rail management and the principal contractors has really helped to make the OH service a success.

The principal contractors focus and pace of work to complete the project on time has limited the possibility to get all these focus areas to move to level 4 or higher. OH was introduced quite late on in the project. Earlier provision would have allowed better integration and influence on processes and risk management. This is a learning point for future projects.



This shows the overall improvement over the period occupational health services were in place.

## **FEEDBACK**

### **What have been the benefits and achievements of the project?**

- The treatment service has saved almost 5000 hours to the project.
- The service has given the expert support to the principal contractors in managing health in addition to safety on site.
- The service has introduced the benefits to having such a service on site to the contract companies.
- Increased legal compliance with health surveillance.
- Engagement of the workforce

### **What has worked well?**

- Treatment service.
- OHP backup to the client
- Provision of extra services such as lead testing
- The quality of Health promotion
- The nurse attending a daily briefing of each of the contractors as soon as possible after the service started
- Location of Medical room – most people went passed it most days which made the service accessible and convenient.
- Advertisement of the service
  - o the Menu cards which were very effective;
  - o Posters
  - o Mini Health Checks - always a good way of announcing our arrival.

### **What has not worked so well?**

- The service was impacted significantly by poor IT connectivity. As all the medical records are stored on a web-based server this led to a significant backlog which needed uploading.

### **Lessons learnt and opportunities for future similar projects.**

- Start the OH service in place as early in the project as possible. This allows for:
  - o Greater integration with the project.
  - o Early establishment of OH processes – there was some difficulty in establishing new practices when they were already well established.
  - o More time and opportunity to have a greater impact
  - o Earlier intervention in the design and planning to aid the designing out of health hazards.

However this project has shown how much can be achieved with a small OH resource within a limited time period.

## Kings Cross Monthly Statistics

Period	2	3	4	5	6	7	8	9	10	11	12	13	Total
<b>Total Numbers seen</b>	484	480	752	528	536	629	639	379	336	817	868	304	6752
<b>Fitness for work</b>													
Pre-employment	203	322	374	342	355	405	483	317	280	658	736	224	4699
Safety Critical Medicals	5	17	26	24	21	14	11	9	9	7	6	1	150
Audiometry	6	5	2	9	8	5	5	-	1	2	2	1	46
Lung Function	-	1	2	3	-	3	7	-	1	39	10	7	73
Skin surveillance	-	-	11	-	4	-	2	1	-	-	-	-	18
HAVS's	-	-	-	142	14	3	-	-	-	1	1	-	161
Lead surveillance	-	-	140	28	22	112	50	8	9	26	9	-	404
<b>Clinical attendances</b>	281	158	378	276	180	224	156	62	56	159	132	80	2142
Ambulance callouts	-	-	-	1	-	-	-	-	1	1	-	-	3
Illness	8	61	49	39	55	37	42	18	19	46	36	25	435
<b>Time saved (hrs)</b>	62	438	344	181	354	225	198	112	95	290	33	141	2473
Works Accidents	9	10	13	13	12	11	15	9	5	12	15	5	129
<b>Time saved(hrs)</b>	48	61	93	92	57	53	100	58	23	64	196	19	864
Non-works accidents	1	10	6	11	8	6	14	4	4	6	6	4	80
<b>Time saved (hrs)</b>	8	53	31	70	96	27	53	23	15	38	27	7	448
Reviews	13	25	30	31	39	23	11	2	9	12	19	19	233
<b>Time saved (hrs)</b>	43	100	124	92	154	93	42	8	42	42	81	65	886
<b>Time saved all treatments (hrs)</b>	161	652	592	435	661	398	361	201	175	434	337	232	4671
<b>Lifestyle</b>													
Mini health checks	179	136	28	9	6	16	3	4	3	26	19	16	445
Rpt. cholesterol	2	-	-	-	-	7	2	1	-	3	3	2	20
Night worker assessments	-	-	11	-	-	-	-	6	-	-	-	-	17