

# LUAS GREEN LINE WILL SERVE CHERRYWOOD FROM 11AM ON SATURDAY 16 OCTOBER 2010

RPA are proud to inform you that the new Cherrywood Luas Line will open on Saturday 16 October 2010 at 11 am. This new 7.5km extension (Line B1) will link Sandyford with Brides Glen.

RPA is pleased to announce that the opening of the new line will be marked by a FREE Green Line Luas weekend on 16th/17th October. All Green Line Luas travel – including the new Cherrywood Extension - will be free to all for the entire weekend and in addition there will be a range of family friendly free activities along the Luas Green Line on Saturday October 16th. Come to the Teddy Bears Picnic and clinic, Kid's Disco,Organic Market, Theatre, Free Creative Workshops and take part in the Luas Treasure Hunt. For full event details, check out **www.luas.ie.** 



# HISTORY OF THE GREEN LINE EXTENSION CHERRYWOOD (LINE B1)

The Luas Cherrywood Line went through five key stages to get to bring the line into passenger service. The different phases and milestones during the lifetime of the project are outlined below

# Phase 1: 2000 Identify Route Options

Following preliminary studies, RPA commenced the Line B1 public consultation process. The initial focus was on selecting the best overall route option for Line B1 to extend the existing Luas Green Line from Sandyford Stop to Cherrywood.

# Phase 2: 2001 Route Selection

The emerging preferred route for Luas Line B1 was selected by RPA in January 2001. The existing Luas Green Line from Sandyford Stop would be extended to a new terminus at Brides Glen Stop. The line will facilitate the achievement of land use objectives developed by Dun Laoghaire-Rathdown County Council.

# Phase 3: 2001-2004 Line & Stop Design

After selecting the best overall route option for Line B1, RPA focused on determining the precise alignment of tracks and location of stops. During this design stage, a wide range of issues including access to premises and stops, traffic management and impact on properties were considered.

# Phase 4: 2005-2006 Build & Operation Permission

RPA submitted a Railway Order Application for Line B1 on 7th November 2005. This was followed by a Public Inquiry in March 2006. The Minister for Transport signed the Railway Order on 14th August 2006 and it became enforceable on 24th January 2007.

# Phase 5: 2007-2010 Construction

The construction process was split up in different phases as outlined below.

# BALLYOGAN ROAD CONSTRUCTION & UTILITY DIVERSIONS February '07 – May'09

The road works involved a full upgrade and re-alignment of the Ballyogan Road, with related utility diversions. The contract specification was a combination of NRA's Specification for Roadworks and the various utility companies' individual specifications. The purpose of these works was to provide a parallel corridor along the Ballyogan Road for the new Luas extension. New drainage pipes, along with ducts for track services, public lighting and new signalled junctions were constructed in the track area at this early stage to assist the later track construction works.

The finished Ballyogan road is a 28,000m<sup>2</sup> single carriage way with 5 new signalled junctions, 5,000m<sup>2</sup> of cycle paths, 8,500m<sup>2</sup> of footpaths, a new public lighting system and a parallel Luas Line to serve the local community.











Two way traffic and access to the local areas was maintained throughout the works. These works were carried out by SIAC Construction on behalf of RPA.

# CONSTRUCTION OF BRIDGES AND STUCTURES March'07 – December '08

The Cherrywood extension runs over 3 bridges and 1 viaduct and crosses the M50 motorway twice. The alignment re-uses some of the old Harcourt line and this required the replacement of the old Glenamuck Bridge. The construction and upgrading works started at the same time as the road works on Ballyogan Road and of the works were all carried out by Laing O'Rourke on behalf of RPA.

# **Brewery Road Bridge**

Brewery Road Bridge is a composite steel bridge. The in situ reinforced concrete deck is supported by 6 steel beams that are in turn supported on in situ reinforced concrete abutments and piers. The bridge spans over the Leopardstown Roundabout at Brewery Road. The radius of the bridge is 50m and the gradient is 5%.

# Leopardstown Bridge and Carrickmines Bridge

Leopardstown Bridge and Carrickmines Bridge cross the M50 Motorway respectively at junction 14 and junction 15 heading south. Both structures are composite steel bridges and are made up of an in situ reinforced concrete deck, supported by 6 steel beams that are in turn supported on in situ reinforced concrete abutments and piers. The steel lifting for the Carrickmines Bridge over the M50 carriageway took place during two overnight possessions on 17-18 November 2007. The Leopardstown Bridge steel beams were lifted into place during the nights of 28-29 March 2008.

# **Glenamuck Bridge**

The old Glenamuck Road was closed in August 2007 to allow for the renewal of the existing bridge (over the Harcourt line) and construction of circa 400m of new carriageway. RPA carried out the construction of 200m of the new carriageway and the new reinforced concrete over bridge. Dun Loaghaire Rathdown County Council upgraded and re-aligned the remaining section of the Glenamuck Road. Laing O'Rourke carried out the works on behalf of RPA. Dun Loaghaire Rathdown County Council's contractor and RPA's contractor executed their works in parallel. The new road was reopened on 29th May 2008 and includes pedestrian walkways, cycle paths and public lighting.

# **Spine Road Underpass**

The Spine Road Underpass is constructed near the future Brennanstown Luas Stop and is a provision for future development of the road network in the area. Approximately 30,000 m3 of rock was excavated to create this structure. Construction was completed in March 2008. The Spine Road Underpass is 150m long, 4.8m high and 8.6 m wide. The approach ramps leading up to the underpass are 165m long in total.

# **Cherrywood Viaduct**

The Cherrywood Viaduct was constructed by Danninger. Works began in April 2007 and were completed in August 2008. It is 540 m long, varies in height up to 12m and in width from 8m to 12m. The viaduct is part of the Public Private Partnership Agreement.

# RAILWAY INFRASTRUCTURE AND SYSTEMS INSTALLATION June'07 – October'10

Somage, Sacyr and Bowen (joint-venture) were appointed in June 2007 to provide the tramway systems and infrastructure. The works were let as a design build Contract operating under modified FIDIC yellow book conditions. Works included the construction of all civil and earthworks, track and power systems, landscaping and boundary treatments. Facilities at Sandyford Depot were also extended to provide for additional tram stabling. At the peak of construction 1000m of track was installed per month.

The contract also included replacement and upgrading of the operational control systems, tram stop equipment, communications networks and their integration into both the new and existing Luas lines.

The last rail weld took place on 5th May 2010 and was attended by RPA CEO, Mr. Frank Allen and Dun Laoghaire Rathdown Cathaoirleach, Cllr. Marie Baker.











Track Laying and system works in facts and figures:

- 3 substations above ground and 1 underground substation will supply power for the tram.
- 1.8km ballast track- excluding Sandyford Depot
- 1.8km plinth track mainly on the bridge structures
- 3.9km embedded track
- 11 tram stops
- 8 signalised road crossings and 13 new operational control systems
- 35km rail was laid and was connected by 2000 rail welds
- 100 manholes and 450 access chambers were built for future maintenance
- 112 km service ducts
- 157 km cables is supported by 550 overhead contact wire poles
- 33000m3 concrete was poured
- 141000t stone was excavated







Plinth Track

**Ballast Track** 

#### **Embedded Track**

## Sandyford Stop Upgrade and Depot Extension

Sandyford Stop was upgraded from two to three platforms to allow for future tram movements between St. Stephens Green and Brides Glen and Sandyford and St. Stephens Green.Existing Luas Green Line operations were maintained throughout this construction.

Five new stabling tracks were constructed in Sandyford Depot to cater for the additional trams. The construction works were completed in February 2009 in time for the delivery of the new vehicles. 22 new trams are now in service on the green line and all 26 new trams will be in service before end-2010. The last 4 of the original trams will then be transferred to the Red Line. This new fleet of trams have no interior step on either end and are therefore 100% "Low-floor" which assists the mobility-impaired and helps the free flow of passengers generally. There are many small improvements over and above the original fleet, including improved wheelchair areas, better passenger grab rail availability and one additional set of double-doors per side to facilitate faster boarding and alighting of passengers.



**New Tram** 











#### Testing and Commissioning of rails and systems

In addition to the factory testing of all components, over 600 site tests have been carried out on the new system since January 2010. Energisation of the line and first tram run was completed on 15th July 2010 and trams have been running at full line speed since early September 2010.

## Phase 6: 2010 Operations

Luas Cherrywood will open for passengers on Saturday 16th October at 11am. Here are some facts about the new line.

#### Luas Cherrywood Schedule

Since some trams will terminate at Sandyford and others at Brides Glen, it is important to check the destination display at the front of the tram and on the stop platforms. The new extension will add 2 zones and 9 stops to the Green Line. The average journey time from Brides Glen to St. Stephen's Green will be 40 minutes.

#### Frequency

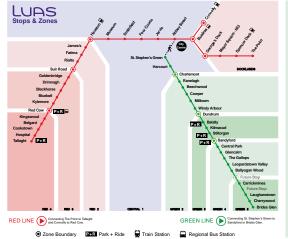
Trams will depart every 7 to 10 minutes from Brides Glen on weekday mornings. Trams to Brides Glen will depart every 10 minutes in the evenings. There will be an increase the number of trams operating between Sandyford and St. Stephen's Green.

#### **Operating Hours**

Operating hours will be the same as on the current Green Line, from 5.30am to 0.30am Monday to Friday, 6.30am to 0.30am on Saturdays, 7.00am to 11.30pm on Sundays and Bank Holidays.

#### Who to contact

The Luas Customer Care will be there for you to advise you on your best ticket choice, to answer any questions or queries and to ensure you have a pleasant journey on Luas For further information please check out www.luas.ie – info@luas.ie – Freephone 1800 300 604



ADULT FARE					ADULT FARE			
NO. OF ZONE(S)	SMART SINGLE	PEAK SINGLE	OFF PEAK SINGLE	ADULT RETURN	7 DAY	30 DAY		
Dne	€1.25	€1.60	€1.50	€2.90	€11.90	€47.50		
Two	€1.55	€2.00	€1.90	€3.50	€15.50	€59.50		
Three	€2.00	€2.40	€2.30	€4.30	€19.00	€71.00		
Four	€2.20	€2.60	€2.50	€4.70	€20.80	€80.00		
Five	€2.35	€2.80	€2.70	€5.00	€22.00	€84.00		
CHILD FARE					CHILD FARE		STUDENT FARE	
IO. OF ONE(S)	SMART SINGLE	PEAK SINGLE	OFF PEAK SINGLE	CHILD RETURN	7 DAY	30 DAY	7 DAY	30 DAY
One	€0.75	€0.80	€0.80	€1.50	€6.00	€24.00	€10.40	€35.50
Two	€0.75	€0.80	€0.80	€1.50	€6.00	€24.00	€11.80	€41.00
Three	€0.75	€0.80	€0.80	€1.50	€6.00	€24.00	€13.80	€48.00
our	€0.95	€1.00	€1.00	€1.90	€7.50	€30.00	€15.20	€53.00
Five	€0.95	€1.00	€1.00	€1.90	€7.50	€30.00	€16.60	€58.00











# **KEEP IT SAFE - GENERAL TRAFFIC RULES ALONG THE LUAS LINES**

# For Vehicles

- Please respect the right of way of the tram.
- Please use taxi ranks, disabled parking spaces, and parking bays correctly.
- Yellow junction boxes, car parks entrances, drive ways and emergency vehicle routes must be kept clear at all times.
- Please adhere to all road and tram, traffic signalling and road signs.

# **For Bicycles**

- Do not cycle in tram lanes.
- If you have to cross the tracks, do so as close to a right angle as possible to avoid the bicycle wheel getting caught in the Luas tracks.
- Always use a cycle lane where provided.
- Please adhere to all road and tram traffic signalling and road signs.
- Please take time to stop, LOOK LEFT AND RIGHT, and listen for horns and warning bells from approaching trams before crossing.
- Prepare to cross well in advance and take your time.
- If necessary for your safety, dismount and cross the rails on foot.
- Be alert in wet and icy weather, the ground and tracks can be slippery.

### **For Pedestrians**

- Please adhere to all road and tram traffic signalling and road signs.
- Please take time to stop, LOOK LEFT AND RIGHT, and listen for horns and warning bells from approaching trams before crossing.
- Please take special care when wearing headphones or while using mobile phones as they may distract you.
- Please use the designated pedestrian crossing points at the stops and junctions correctly.
- Please stay clear of overhead electricity cables.



# Watch out for Luas

Watch out for trams at junctions.

Never block the path of trams.

Always obey signs, signals and road markings.

For more info see www.luas.ie or Freephone 1800 300 604

# THANK YOU

RPA would like to thank everyone involved over the last few years to bring this project to completion. A special thanks to the residents, businesses, commuters and retailers in the Luas Cherrywood area and we hope you enjoy the convenience of this new service. Come and join us for Free Travel and Free Events on 16th and 17th October and explore the new Cherrywood Line!









