An Interim Survey of Railway Bridges in County Clare

Limerick to Athenry Line.



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Introduction: Limerick to Athenry Railway

In the mid-1800s railway construction in Ireland was booming. By c.1860 the main urban centres were linked and the network was expanding to provide a connection to county towns and rural areas. In 1846, a company was incorporated with a view to constructing a line between Limerick, Ennis and Killaloe, which would have provided the first connection between Co. Clare and the burgeoning railway network. No construction was undertaken on this proposed line and the company was dissolved in 1850 (Coleman, 2013), the first rail connection with Clare eventually coming into being in 1859 with the opening of a line between Limerick and Ennis.

Despite having been initially authorised in 1853, financial difficulties and problems arose with the contractor – the original English contractors Johnson and Kinder were replaced by William Dargan in 1857. This caused delays to construction (Ferris 2010, 50). When it opened, the new line was worked by the Waterford & Limerick Railway (W&LR), although it was nominally a different company, the Limerick & Ennis Railway (L&ER). It was extended northwards with the opening of the Ennis & Athenry Junction Railway (E&AJR) in 1869, linking the W&LR with the Midlands Great Western Railway (MGWR) at Athenry. The L&ER and the E&AJR were subsumed into the W&LR in 1874 and 1893 respectively, and a subsequent extension to Tuam and Claremorris brought the total mileage worked by the company to $342\frac{1}{2}$, making it the fourth largest railway company in the country, after the GS&WR, GNR and MGWR. At this point it became known as the Waterford Limerick & Western Railway (WL&WR) (Coleman, 2013). It was absorbed into the GS&WR in 1901.

References

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Ferris, Tom. (2010) Irish Railways: A new history. Dublin, Gill & Macmillan.

THE HISTORY OF IRISH RAILWAYS from WIKIPEDIA.

The history of rail transport in Ireland began only a decade later than that of Great Britain. By its peak in 1920, Ireland had 3,500 route miles (3,500 km). The current status is less than half that amount, with a large unserviced area around the border area between Northern Ireland and the Republic of Ireland.

Ireland's railways are run by Iarnród Éireann in the Republic and Northern Ireland Railways. The Railway Preservation Society of Ireland based in Whitehead, County Antrim runs preserved steam trains on the main line, with the Irish Traction Group preserving diesel locomotives, and operating on the main line. The Downpatrick & County Down Railway is the only self-contained full-size heritage railway in Ireland.

Transport before railways

Transport on a country-wide scale began in 1710 with the introduction by the General Post Office of mail coaches on the main routes between towns. Private operators added to the routes, and an established "turnpike" road system started in the 1730s. In 1715 the Irish Parliament took steps to encourage inland navigation, but it was not until 1779 that the first 19 km (12 mi) section of the Grand Canal was opened. The addition of the Royal Canal and river navigation (particularly on the River Shannon) meant that freight could be transported more easily. Charles Bianconi established his horse-car services in the south in 1815, the first of many such passenger-carrying operations. Despite these improvements huge areas of Ireland still relied on a basic road system; turnpikes were still slow and canals were expensive.

Ireland's first railway

Although a railway between Limerick and Waterford had been authorised as early as 1826 (the same year as Britain's first locomotive-drawn line, the Liverpool and Manchester Railway)^[1] it wasn't until 1834 that the first railway was built, the Dublin and Kingstown Railway (D&KR) between Westland Row in Dublin and Kingstown (Dún Laoghaire), a distance of 10 km (6 mi).^[2] Due to local opposition the first terminus, *Kingstown Harbour*, was adjacent to the West Pier. It took a further three years before the line reached the site of the present station. The contractor was William Dargan, called "the founder of railways in Ireland", due to his participation in many of the main routes. The D&KR were notable in being one of the earliest dedicated commuter railways in the world. The planning undertaken was also noteworthy: a full survey of the existing road traffic was made, in addition to careful land surveys.

As well as the traffic survey showing existing volumes to be healthy, there was the potential from the ever expanding port at Kingstown. On 9 October 1834 the locomotive *Hibernia* brought a train the full route from the Westland Row terminus (now Dublin Pearse) to Kingstown. The railway was built to 1,435 mm (4 ft 8 $\frac{1}{2}$ in) standard gauge.

The entire route forms part of the present day Dublin Area Rapid Transit electrified commuter rail system.

Railway gauges

The track gauge adopted by the mainline railways is 5 ft 3 in (1,600 mm). This unusual gauge is otherwise found only in the Australian states of Victoria, southern New South Wales (as part of the Victorian rail network) and South Australia (where it was introduced by the Irish railway engineer F. W. Sheilds), and in Brazil.

The first three railways all had different gauges: the *Dublin and Kingstown Railway*, 1,435 mm (4 ft 8 $\frac{1}{2}$ in); the *Ulster Railway*, 6 ft 2 in (1,880 mm); and the *Dublin and Drogheda Railway*, 5 ft 2 in (1,575 mm). Following complaints from the UR, the Board of Trade investigated the matter, and in 1843 recommended the use of 5 ft 3 in (1,600 mm) and that compensation be paid to the UR for the costs incurred in changing to the new gauge.

Main line railways

By the beginning of the 20th century, the main line railways were:

Belfast and County Down Railway

The Belfast and County Down Railway (B&CDR) linked Belfast south-eastwards into County Down. It was incorporated in 1846; the first section opened in 1848; absorbed into the Ulster Transport Authority in 1948 and all but the line to Bangor closed in 1950.

Cork, Bandon and South Coast Railway

The Cork, Bandon and South Coast Railway (CB&SCR) was one of the major Irish railways; incorporated 1845, the first section opened 1851. It operated from Cork, serving towns along the southern coastal strip to the west of the city. It had a route length of 150 km (93.75 mi), all single line. The Railway was largely concerned with tourist traffic, and there were many road car routes connecting with the line, including one from Bantry to Killarney called *The Prince of Wales Route*, which operated at the beginning of the 20th century.

The Clonakilty Extension Railway 14 km (8.75 mi), opened 1886, was worked by the CB&SCR

County Donegal Railways Joint Committee

The County Donegal Railways Joint Committee (CDRJC) operated in north-west Ireland during the 20th century. The parent line opened 1863, 178 km (111 mi) (narrow gauge). It was incorporated by an Act of Parliament in 1906 which authorised the joint purchase

of the then Donegal Railway Company by the Great Northern Railway of Ireland and the Midland Railway Northern Counties Committee. The Strabane and Letterkenny Railway 31 km (19.5 mi), opened 1909, was worked by the CDRJC

Dublin and South Eastern Railway

The Dublin and South Eastern Railway (D&SER) was originally incorporated, by Act of Parliament in 1846, as the *Waterford, Wexford, Wicklow and Dublin Railway Company*; incorporated 1846, the first section opened 1856. It was known more simply as the *Dublin, Wicklow and Wexford Railway Company* between 1860 and 31 December 1906 when it became the DSE. Amongst the lines forming the DSE were:

The Dublin and Kingstown Railway authorised 1831, it opened in 1834 – the first public railway in Ireland. The Kingstown-Dalkey section was operated by atmospheric traction for a short while. The railway formed part of the Royal Mail route between London and Dublin via the packet station at Kingstown (now Dún Laoghaire).

The City of Dublin Junction Railway 2 km (1.25 mi), opened 1 May 1891, the Dublin and Kingstown Railway 10 km (6 mi); opened 1834, and the New Ross and Waterford Extension Railway 22 km (13.5 mi); opened 1904 were all worked by the D&SER.

Great Northern Railway of Ireland

The route of the Great Northern Railway of Ireland (GNR(I)), which exists today from Dublin to Belfast and Drogheda to Navan, emerged, like so many others of the former major railway companies in Ireland, as the result of many amalgamations with smaller lines. The earliest dates of incorporation were for:

the Ulster Railway, the second railway project to start in Ireland, incorporated May 1836, partially opened 1839; it was originally constructed to a gauge of 1880 mm (6 ft 2 in), but was later altered, under protest, to the new Irish standard gauge. The companies forming the Dublin to Belfast line and those connecting to it were obliged to contribute part of this cost.

the Dublin and Drogheda Railway (D&D), also incorporated 1839, opened in 1844.

the Irish North Western Railway (INWR), incorporated in 1862 in a merger between the Dundalk and Enniskillen Railway and the Enniskillen and Derry Railway, operated from Dundalk and Portadown via Enniskillen and Omagh to Derry. the Dublin and Belfast Junction Railway (D&BJct), incorporated in 1845 and opened in stages between 1849 and 1853.

In 1875, the D&D and the D&BJct merged to form the *Northern Railway of Ireland* and thirteen months later the Great Northern Railway (Ireland) (GNR(I)) was formed when the Ulster Railway and the INWR joined this concern. Other minor railways were subsequently taken over. At its height, in the thirty or so years prior to World War I, the GNR(I) covered a large area of Ireland between Dublin, Belfast, Derry and Bundoran. By the end of World War II the company was in dire straits. It struggled on until 1953 when it was nationalised by the two Governments, becoming the Great Northern Railway Board.

In 1957, the Government of Northern Ireland unilaterally ordered the GNRB to close most of their lines west of the Bann within Northern Ireland. This left some useless stubs within the Republic, such as through Pettigo station; 13 km (8 mi) from the border to Bundoran and Monaghan to Glaslough. The Republic of Ireland Government had no choice but to abandon these stubs. The one exception, which survived until 1965, was the line from Portadown to Derry via Dungannon and Omagh.

The GNRB was abolished on 1 October 1958, when it was split between the Ulster Transport Authority and Córas Iompair Éireann in Northern Ireland and the Republic, respectively. This gave rise to the interesting situation whereby part of the line between Strabane and Derry was in the Republic of Ireland and the stations and permanent way staff on this section were CIÉ employees, even though there was no physical link to the rest of the CIÉ rail network.

The Castleblayney, Keady and Armagh Railway 29 km (18.25 mi), opened in 1909 was worked by the GNR(I)

Great Southern & Western Railway

Still known today as the 'premier line', the *Great Southern & Western Railway* (GS&WR) was the largest railway system in Ireland. It began as a railway incorporated to connect Dublin with Cashel – incorporated 6 August 1844 – and which was afterwards extended to the city of Cork. Various other amalgamations took place until the end of the 19th century, among them lines to Limerick and Waterford.

In 1900, as a result of Acts of Parliament, several important lines became part of the GS&WR system, including the *Waterford and Central Ireland Railway* and the *Waterford, Limerick and Western Railway*. The latter connected Sligo to Limerick. The Railway also connected with the Midland Great Western Railway main line at Athlone on its Dublin–Galway main line.

The Athenry and Tuam Extension Light Railway 27 km (17 mi), Baltimore Extension Light Railway 13 km (8 mi), Tralee and Fenit Railway 13 km (8 mi); opened 1887 and

Waterford, New Ross and Wexford Junction Railway 5 km (3.25 mi) (leased from D&SER) were worked by the Great Southern & Western Railway.

Midland Great Western Railway

The Midland Great Western Railway main line connected Dublin to Galway and Clifden via (Athlone); there were a number of branch lines:

- Kingscourt via Navan,
- Nesbitt Junction (near Enfield) to Edenderry,
- Sligo, with further branches to Cavan Town and Ballaghaderreen,
- Westport with further branches to Ballinrobe and Killala via Ballina in County Mayo,
- Attymon Junction to Loughrea.

The Railway was first incorporated in 1845. Both the Ballinrobe and Claremorris Railway 19 km (12 mi), opened 1892 and the Loughrea and Attymon Railway 14 km (9 mi), opened 1890 were worked by the Midland Great Western.

Northern Counties Committee

The Northern Counties Committee (Midland Railway) was an amalgamation of the Midland Railway with the Belfast and Northern Counties Railway which was formed on 1 July 1903. Additionally, the Carrickfergus Harbour Junction Light Railway 2 km (1 mi); was incorporated in 1882, opening in 1887 and was worked by the Northern Counties Committee.

Other railways

Independent railways

- <u>Ballycastle Railway</u> 26 km (16.25 mi) (914 mm (3 ft) gauge); incorporated 1878, opened 1880; four locomotives, 74 other vehicles
- <u>Bessbrook and Newry Tramway</u> (electric) 3 miles (5 km) (914 mm (3 ft) gauge); incorporated 1884; one locomotive, 24 other vehicles
- <u>Castlederg and Victoria Bridge Tramway</u> 12 km (7.25 mi); (914 mm (3 ft) gauge); incorporated 1883, opened 1884; three locomotives, 34 other vehicles; closed 1933
- <u>Cavan and Leitrim Light Railway</u> 78 km (48.5 mi); (914 mm (3 ft) gauge); incorporated 1883, opened 1888; nine locomotives, 167 other vehicles
- <u>Cavehill and Whitewell Tramway</u> 6 km (3.75 mi)
- <u>Clogher Valley Railway</u> 59 km (37 mi)(914 mm (3 ft) gauge); incorporated 1884, opened 1887; seven locomotives, 127 other vehicles; closed 1942
- Clonakilty Extension Light Railway 14 km (8.75 mi); (914 mm (3 ft) gauge); incorporated 1881, opened 1886
- <u>Cork and Macroom Direct Railway</u> 38 km (24.5 mi); incorporated 1861, opened 1866; four locomotives, 132 other vehicles
- <u>Cork and Muskerry Light Railway</u> (C&MLR) 29 km (18 mi); (914 mm (3 ft) gauge); incorporated 1883, opened 1887; six locomotives, 87 other vehicles
 - o Donoughmore Extension Railway 14 km (9 mi) (worked by C&MLR) incorporated 1900

- <u>Cork, Blackrock and Passage Railway</u> 26 km (16 mi); (originally Irish gauge, 1,600 mm (5 ft 3 in) gauge; <u>converted</u> to 914 mm (3 ft) gauge in 1900); incorporated 1846, opened 1850; four locomotives, 57 other vehicles
- <u>Dublin and Blessington Steam Tramway</u> 25 km (15.5 mi); (1,600 mm (5 ft 3 in) gauge); incorporated 1887, opened 1888; four locomotives, 46 other vehicles
- <u>Dublin and Lucan Electric Railway</u> 1900–1925, 11 km (7 mi); (3 ft 6 in/1,067 mm gauge), 37 vehicles. Opened in 1880 as the Dublin and Lucan Steam Tramway (914 mm (3 ft) gauge). Operated by the <u>DUTC</u> 1928–1940 as part of the Dublin tram system ; (5 ft 3 in/1,600 mm gauge)
- <u>Dundalk, Newry and Greenore Railway</u> 42 km (26.5 mi); incorporated 1863; six locomotives, 230 other vehicles
- <u>Giant's Causeway, Portrush and Bush Valley Railway & Tramway</u> 13 km (8 mi); (914 mm (3 ft) gauge); incorporated 1880; two locomotives, 23 other vehicles
- <u>Listowel and Ballybunion Railway</u> 16 km (10 mi); (Monorail) (Lartigue system); incorporated 1886, opened 1888; three locomotives, 39 other vehicles
- <u>Londonderry and Lough Swilly Railway</u> (L&LSR) 133 km (83 mi); (914 mm (3 ft) gauge); opened 1863/1904 extension; 18 locomotives, 311 other vehicles
 - o Letterkenny Railway 26 km (16 mi); worked by L&LSR; opened 1883
- Schull and Skibbereen Railway 22 km (14 mi); four locomotives, 61 other vehicles
- <u>Sligo, Leitrim and Northern Counties Railway</u> 78 km (49 mi); 1,600 mm (5 ft 3 in) gauge; incorporated 1875, opened 1882; 11 locomotives, 228 other vehicles; closed 1957
- <u>South Clare Railway</u> 42 km (26 mi); three locomotives, 27 other vehicles
- <u>Timoleague and Courtmacsherry Railway</u> (T&CR) 14 km (9 mi); (914 mm (3 ft) gauge); incorporated 1888, opened 1891; two locomotives, 119 other vehicles
 - Ballinascarthy Railway; worked by T&CR; (914 mm (3 ft) gauge); incorporated 1888, opened 1890
- <u>Tralee and Dingle Light Railway</u> 60 km (37.5 mi); (914 mm (3 ft) gauge); incorporated 1884, opened 1891; eight locomotives, 108 other vehicles
- <u>Waterford and Tramore Railway</u> 12 km (7.25 mi); incorporated 1851, opened 1853; four locomotives, 32 other vehicles; unique in being the only line to remain unconnected to the rest of the Irish railway. The line closed, under CIÉ, in 1960
- <u>West Clare Railway</u> 43 km (27 mi); (914 mm (3 ft) gauge); opened 1887; eight locomotives, 146 other vehicles

The information contained in this section obtained from *Railway Year Book 1912* (Railway Publishing Company)

Monorail

The <u>Listowel and Ballybunion Railway</u> was opened in 1888. It was the world's first commercial <u>monorail</u>, named the Lartigue system after <u>Charles Lartigue</u>. It operated between <u>Listowel</u> and <u>Ballybunion</u> in <u>County Kerry</u> until 1924.

A modern-day re-creation of this system operates in Listowel. Photographs of this can be found here: Lartigue Railway Photographs 2004

The system in the early 20th century

The rail system, both North and South, survived independence unscathed. The <u>Irish Civil</u> <u>War</u> was to take a much heavier toll on the railways in the newly born <u>Irish Free State</u> (Saorstát Éireann), as the <u>Anti-Treaty IRA</u> systematically targeted them and the Free State had to build a network of fortified blockhouses to protect the railways. One of the most spectacular attacks on the infrastructure was the bombing of the <u>Mallow</u> viaduct. (See <u>The Civil War and the Railways</u>)

In 1925, the railway companies within Saorstát Éireann were merged to form the <u>Great</u> <u>Southern Railways</u>. This company was amalgamated on 1 January 1945 with the <u>Dublin</u> <u>United Transport Company</u> to form <u>Córas Iompair Éireann</u>.

Partition however, would eventually exact a heavy toll on the cross–border routes (intrinsic to the <u>County Donegal</u> rail network).

World War II also proved costly for the rail system in the Republic. With the war effort, <u>Britain</u> could not spare coal for neutral Ireland. Thus, Irish steam engines often ran on poor quality Irish coal, wood, or not at all. Unsuccessful attempts were even made to burn peat. The deteriorating quality and frequency of service discouraged rail travellers, whose numbers were also diminishing due to steadily increasing emigration.

Dieselisation

Railways in the Republic were converted to <u>diesel locomotive</u> traction early, and swiftly, due to the run down nature of many of the steam engines, lack of coal, and a desire for modernisation. In 1951 <u>ClÉ</u>'s first diesel <u>railcars</u> arrived, followed in 1953 by an order for 100 diesel locomotives.

Rationalisation

In the 1950s and 1960s large swathes of route were closed in the Republic *[a maximum of*] 2,668 miles (4,294 km) in Eire and 754 miles (1,213 km) in Ulster was reached in 1920, declining to 2,440 miles (3,930 km) and 542 miles (872 km) respectively in 1950 and 2,221 miles (3,574 km) and 336 miles (541 km) by $19571^{[3]}$ but evidence is still visible in the landscape, as are more significant features like bridges and viaducts. Notable was the loss of the entire West Cork Railway network. Most branch lines in the Republic were also closed. By and large the main route network survived intact, with a relatively even distribution of cutbacks. The main routes from Dublin to Belfast, Sligo, Galway and the West of Ireland, Limerick, Cork and Kerry, Waterford and Wexford survived. The cross country route from Waterford to Limerick and onwards to Sligo survived for a time, although services would later cease on almost all the route. The North Kerry line from Limerick to Tralee survived until the 1970s. One notable closure was that of the Dublin and South Eastern Railway Harcourt Street railway line in Dublin, despite being regarded as an important commuter artery. On 30 June 2004, the majority of the route reopened as part of the new Luas tram system. South of the Sandyford depot, decisions taken by <u>CIÉ</u> and Dun Laoghaire Rathdown County Council, to sell the trackbed through Foxrock and allow houses to be built on it near Shankill respectively have made integrating this route into the Luas system difficult. After Sandyford the line detours over the Leopardstown roundabout so as to run west around the Leopardstown Racecourse before rejoining the original alignment just north of Carrickmines. The Harcourt Street line had run around the eastern edge of the racecourse, via Silverpark. Remnants of the old Foxrock Station

are visible at the back of The Hedgerows in Foxrock. After this detour around Leopardstown Racecourse, the current line runs roughly along the original alignment with some minor detours, particularly prevalent at Laughanstown.

The Luas Green Line currently terminates at Bride's Glen, just North of the viaduct of the same name. It has been proposed to restore the viaduct should it carry the proposed Luas extension to Bray.

In a few years, the <u>Ulster Transport Authority</u> shut down a large network across <u>Ulster</u>, leaving only Belfast to Derry, Dublin and branches to <u>Larne</u> and <u>Bangor</u>. <u>ClÉ</u>, the transport company in the Republic, had no option but to close their end of cross-border routes. Today a large hole remains in the island's rail network, with a distance of 210 km (130 mi) from <u>Derry</u> to <u>Mullingar</u> untouched by railways, and no rail service to large towns such as <u>Letterkenny</u> and <u>Monaghan</u>.

The 1970s and 1980s

In the 1970s and 1980s, there was a long period without substantial investment in the rail system, with the notable exception of the <u>Dublin Area Rapid Transit</u> (DART), in which the North-South commuter route in and out of Dublin was electrified, and new frequent services have run from July 1984 to the present day. It was intended to expand the service, with routes to the West of the city, but economic conditions militated against this. In fact, the size of the DART fleet remained unaltered until the year 2000.

Also, 1976 saw the introduction of a small fleet of 18 high-speed diesel-electric locomotives built by <u>General Motors Electro-Motive Diesel</u> at La Grange, Illinois. These 2,475 hp (1,846 kW) units, <u>071 Class</u>, were capable of speeds of 145 km/h (90 mph) and immediately began operating express services such as the Cork-Dublin line.

1 August 1980 saw the worst Irish transportation disaster in recent times, when 18 people were killed and 62 injured in a <u>rail accident in Buttevant</u> on the main Cork-Dublin line. A train carrying 230 passengers was derailed when it crashed into a siding at 110 km/h (70 mph). The passengers who were most severely injured or killed were seated in coaches with wooden frames. This structure was incapable of surviving a high speed crash and did not come near to the safety standards provided by modern (post 1950s) metal bodied coaches. This accident led to a major review of the national rail safety policy and resulted in the rapid elimination of the wooden-bodied coaches that had formed part of the train.

The decision to purchase a new fleet of modern <u>InterCity carriages</u> based on the British Rail Mark 3 design was quickly made. These coaches, an already well proven design, were built by BREL in Derby, England and, under licence, at CIÉ's own workshops at Inchicore in Dublin between 1980 and 1989. Other carriages to join the fleet in the 1980s were second-hand ex <u>British Rail</u> Mark 2s.

Cutbacks continued in this period: in 1975 the last rural branch line between Attymon Junction and Loughrea was closed, the line between Limerick and Claremorris and a number of local stations on main lines (such as Buttevant) lost their passenger services. Freight closures at the end of the 1980s included the closure of the line to <u>Youghal</u> in <u>County Cork</u> and the removal of the North <u>Kerry</u> line.

1990s rail revival

In the 1990s, the Republic experienced an economic boom (known colloquially as the <u>Celtic Tiger</u>). This allowed substantial investment to be made. 34 new locomotives (designated <u>201 Class</u>) were purchased from <u>General Motors</u>, including two for <u>Northern Ireland Railways</u> (NIR). New <u>De Dietrich</u> carriages were also purchased for the cross-border 'Enterprise' service. Meanwhile, the route network was upgraded to <u>continuous</u> welded rail (CWR) and old mechanical signalling was replaced by electronic signalling.

In the mid-1990s, the Greater Dublin area continued to experience a population boom. Such commuter trains as existed were ageing slam-door stock on unreliable old locomotives (the better stock was for InterCity use). The DART was limited in terms of capacity and route. New <u>diesel railcars</u> were ordered, and added first to the <u>Kildare</u> suburban route. The route from <u>Clonsilla</u> to <u>Maynooth</u> was double-tracked and further diesel railcars ordered, and the reopening of stations such as <u>Drumcondra</u>. Again, the North-South Dublin route saw new railcars provide services to <u>Dundalk</u> and <u>Arklow</u>. A number of orders were made for new DART carriages, the first for over a decade.

2000s

The line was electrified and DART services extended in the South East to <u>Greystones</u> in 2000 and on to <u>Malahide</u> on the Northern line.

DART and Commuter stations were also upgraded, allowing access for people with disabilities with new lifts at footbridges and lengthened platforms to accommodate 8-car sets. Extra roads were provided out of Dublin, while the main terminals of <u>Dublin</u> <u>Connolly</u> and <u>Dublin Heuston</u> were upgraded (the latter completed in 2004, doubling its previous capacity). A new railcar servicing depot was built at Drogheda in 2004 (<u>Inchicore</u> continues to be used for locomotives and carriages).

Iarnród Éireann placed orders for 67 InterCity carriages in 2003 and for 150 "regional railcars" (diesel multiple unit) in 2004. These were used to meet the demand on the railways, and all older carriages were retired from revenue service by September 2009. At peak times, capacity was below requirements. It has been seen in recent years that Iarnród Éireann have phased out all locomotive hauled services, other than those using the 67 Mark 4 carriages on the Dublin-Cork Main Line and the Enterprise on the Dublin-Belfast Main Line, with 22000 Class railcars.

Northern Ireland too has experienced recent rail investment. Central Station has been redesigned, and the Bleach Green-Antrim line, a more direct route for trains to Derry,

was reopened in 2001 (although this led to the suspension of the <u>Lisburn – Antrim</u> line and the closure of three rural stations). The line to Bangor was relaid. A new railcar fleet has entered service. The single-track line to Derry, north of <u>Coleraine</u> continues to be of a poor standard. A derailment in 2003, caused by cliff-side boulders falling onto the line, closed the route for some time. In the face of long journey times and a frequent (and generally faster) bus service, the route's future remains in some doubt.

In March 2007, as part of the <u>Transport 21</u> initiative, <u>Docklands railway station</u> opened, the first new station in Dublin city centre since 1891's <u>Tara Street</u>.

In July 2009, commuter trains began to run from <u>Mallow</u> to Cork, and on part of the reopened Cork to Youghal line to <u>Midleton</u> and to Cobh, a number of stations were opened, and there are plans for more stations on the lines.^[4]

All 100 Mark 3 carriages (dating back from 1980-1989) were phased out in September 2009 with capacity being taken up by <u>22000 Class</u> railcars. The entire Mark 3 fleet was scrapped between 2013 and 2014.

2010s

In September 2010 services began from <u>Dunboyne</u> to Dublin Docklands after the redevelopment of 7.5 km section of the old Navan railway line which had been closed in 1963 from Dunboyne to Clonsilla on the Maynooth line. There are proposals for further development of this line to Navan as part of <u>Iarnród Éireann</u>'s plans by 2030.

More deliveries of Commuter and InterCity <u>22000 Class</u> railcars took place from March 2007 until April 2012, when the final deliveries took place. The route west to Kildare was quadrupled between 2007 and 2010.

<u>NI Railways</u> underwent a major investment programme over the past few years, with track upgrades to the line between Belfast and Derry and 20 new trains which replaced the remaining <u>Class 80</u> and <u>Class 450</u> rolling stock. The new trains were a development of the existing <u>Class 3000</u> units, the <u>Class 4000</u>, which entered service in 2011 and 2012.

Until 2013 Ireland was the only <u>European Union</u> state that had not implemented <u>EU</u> <u>Directive 91/440</u> and related legislation, having <u>derogated</u> its obligation to split train operations and infrastructure businesses; a similar situation exists in Northern Ireland. A consultation on the restructuring of IÉ took place in 2012. The derogation ended on 14 March 2013, when Iarnród Éireann was split in two sectors: Railway Undertaking and Infrastructure Manager. Former Irish Transport Minister Leo Varadkar indicated that any open access private operators would not receive any subsidy to operate.^[5]

Future projects

In relation to fleet expansion, orders of DARTs were suspended indefinitely in October 2009, but Dublin suburban routes are almost at capacity.

Some call for the expansion of the rail network in the Republic. The route from Limerick to Waterford is due to have a realistic service for the first time in decades. Nevertheless, this is the only non-Dublin InterCity route in existence. A railway right of way exists from Limerick, up through the west, to <u>Sligo</u>. This has been titled the <u>Western Railway</u> <u>Corridor</u> (WRC) and some see it as a possible counterbalance to investment in Dublin. Phase 1 is complete with the line from <u>Ennis</u> to <u>Athenry</u> open since March 2010. Phases 2 and 3, from Athenry to <u>Tuam</u>, with an extension from Tuam to <u>Claremorris</u> to link up with the <u>Westport/Ballina</u> line to Dublin, are deferred indefinitely. Future proposals would see the line extended to <u>Sligo</u>, where it would also link with <u>Knock Airport</u>.

APPENDIX 1

CATALOGUE OF RAILWAY BRIDGES IN COUNTY CLARE FROM GORT TO LIMERICK.

Gortaficka	OBE 102	Page 15
Crusheen North	OBE 101D	16
Crusheen	UBE 100	17
Bearnafunshin	OBE 96C	18
Ballymaconna	UBE 96	19
Drumquin	OBE 93	20
Barefield	OBE 91	21
Ballyduff	UBE 96	22
Tulla Road	UBE 78	23
Clonroad		24
Quin Road	GL 412	25
Skehenagh	OBE 71	26
Knockanimana	OBE 68	27
Carrowgar		28
Manus	OBE 64	29
Ardsollus	UBE 58	30
Aylecotty	OBE 56	31
Mooghaun	OBE 55	32
Clancy's Bridge	OBE 54	33
Poulbawn		34
Ballycar		35
Rathlaheen	OBE 50	36
Rath		37
Feenagh	OBE 47	38
Atterbury	CL-471-004	39
Rossmanagher	UBE 45	40
Owenogarney	UBE 41	41
Ballinaphunta	249	42
Brickhill	OBE 102	43
Croughaun	OBE 35	44
Cratloe	UBE 33	45
Punchbowl	UBE 29	46
Stonepark	UBE 28	47
Pass	OBE 21	48

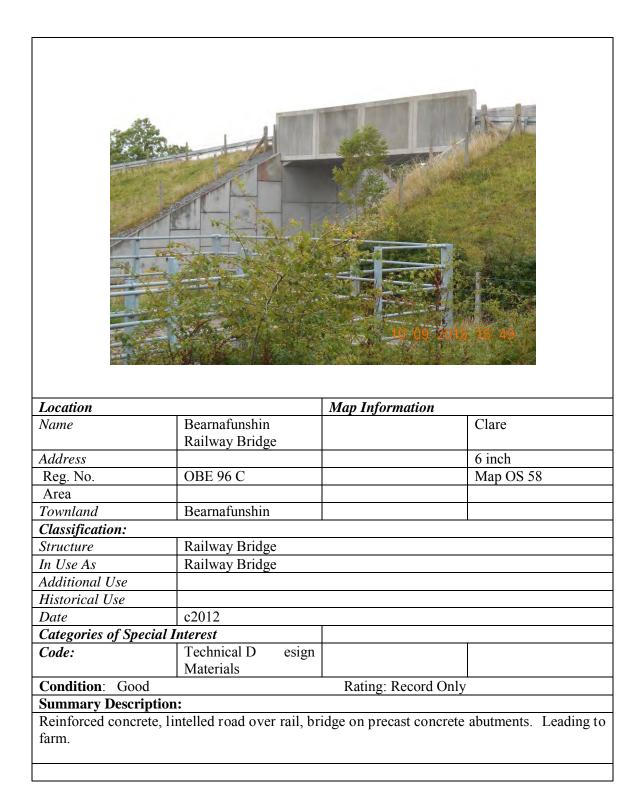
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Location Gortaficka	Railway Bridge	Map Information	
Name	Gortaficka R ailway		Clare
	Bridge		
Address			6 inch
Reg. No.	OBE 102		Map OS 58
Area	Crusheen		
Townland	Gortaficka		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1868		
Categories of Special			
Code:	Technical D esign		
	Materials		
Condition: Good		Rating: Local	
Summary Description			
Single arch rubble r	nasonry, limestone, road	over rail bridge Fllin	tical arch Rusticated
	ew concrete capping to rai		

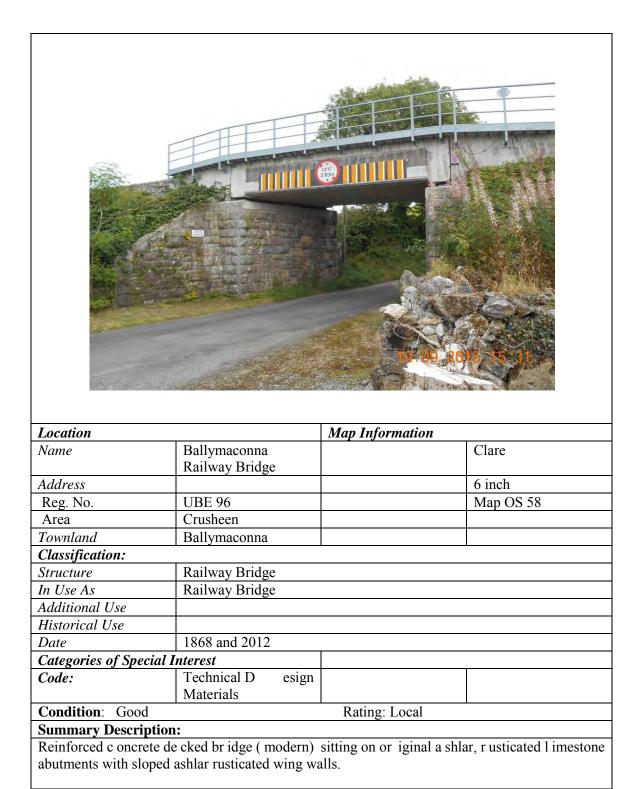
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Location Crusheen N		Map Information	
Location Crusheen N Name	Crusheen N orth		Clare
			Clare 6 inch
Name Address	Crusheen N orth		6 inch
Name	Crusheen N orth Railway Bridge		
Name Address Reg. No.	Crusheen N orth Railway Bridge OBE 101D		6 inch
Name Address Reg. No. Area	Crusheen N orth Railway Bridge OBE 101D Crusheen		6 inch
Name Address Reg. No. Area Townland	Crusheen N orth Railway Bridge OBE 101D Crusheen		6 inch
Name Address Reg. No. Area Townland Classification:	Crusheen N orth Railway Bridge OBE 101D Crusheen Crusheen		6 inch
Name Address Reg. No. Area Townland Classification: Structure	Crusheen N orth Railway Bridge OBE 101D Crusheen Crusheen Railway Bridge		6 inch
Name Address Reg. No. Area Townland Classification: Structure In Use As	Crusheen N orth Railway Bridge OBE 101D Crusheen Crusheen Railway Bridge		6 inch
Name Address Reg. No. Area Townland Classification: Structure In Use As Additional Use	Crusheen N orth Railway Bridge OBE 101D Crusheen Crusheen Railway Bridge		6 inch
Name Address Reg. No. Area Townland Classification: Structure In Use As Additional Use Historical Use Date	Crusheen N orth Railway Bridge OBE 101D Crusheen Crusheen Railway Bridge Railway Bridge c2012		6 inch
Name Address Reg. No. Area <i>Townland</i> Classification: Structure In Use As Additional Use Historical Use	Crusheen N orth Railway Bridge orth OBE 101D orth Crusheen orth Crusheen orth Railway Bridge orth Railway Bridge orth c2012 orth Interest orth Technical D esign		6 inch
Name Address Reg. No. Area <i>Townland</i> Classification: Structure In Use As Additional Use Historical Use Date Categories of Special	Crusheen N orth Railway Bridge OBE 101D Crusheen Crusheen Railway Bridge Railway Bridge c2012 Interest		6 inch Map OS 58
Name Address Reg. No. Area Townland Classification: Structure In Use As Additional Use Historical Use Date Categories of Special Code:	Crusheen N orth Railway Bridge OBE 101D OBE 101D Crusheen Crusheen Crusheen Railway Bridge Railway Bridge Railway Bridge Called and the second se		6 inch Map OS 58



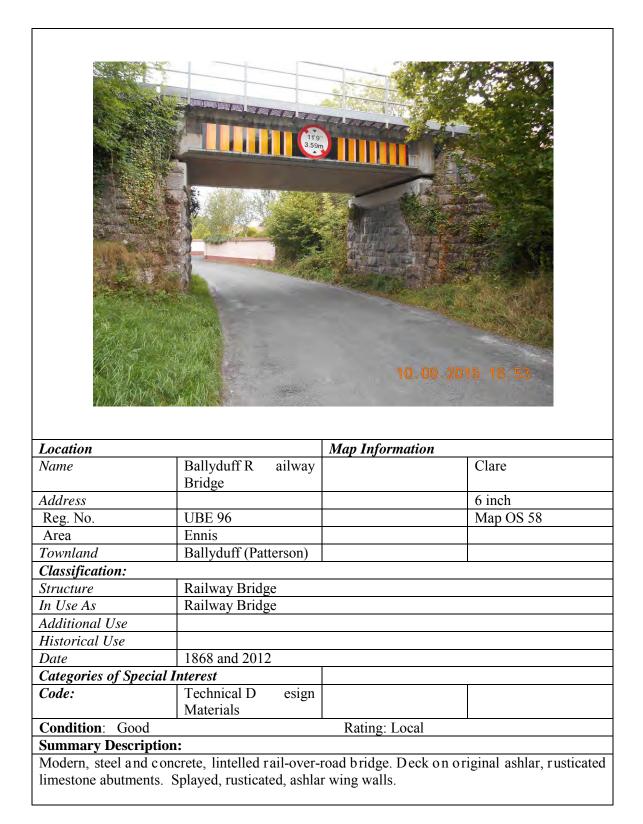
Location Crusheen Ra	ailway Bridge	Map Information	
Name	Crusheen R ailway		Clare
	Bridge		
Address			6 inch
Reg. No.	UBE 100		Map OS 58
Area	Crusheen		
Townland	Crusheen		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1868		
Categories of Special I	Interest		
Code:	Technical D esign		
	Materials		
Condition: Good		Rating: Local	
Summary Description	:		
Iron de ck, r ail ov er r repaired c. 2010.	oad, br idge on rusticate	ed, c oursed l imestone a	butments. R aised and





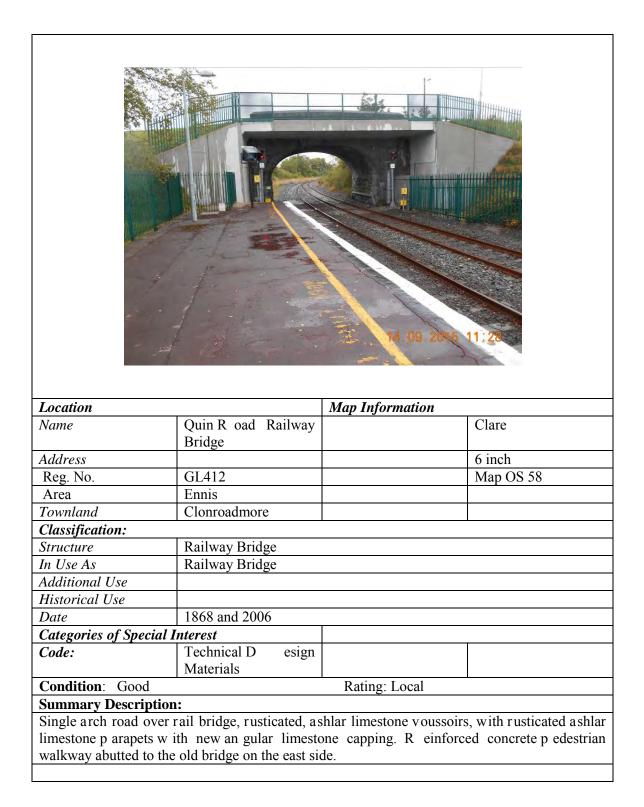
Location		Map Information	
Name	Drumquin R ailway Bridge		Clare
Address			6 inch
Reg. No.	OBE 93		Map OS 58
Area	Ennis		
Townland	Drumquin		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1868		
Categories of Specia	l Interest		
Code:	Technical D esign Materials		
	Iviateriais		
Condition: Good	Waterials	Rating: Local	
Condition: Good Summary Description		Rating: Local	

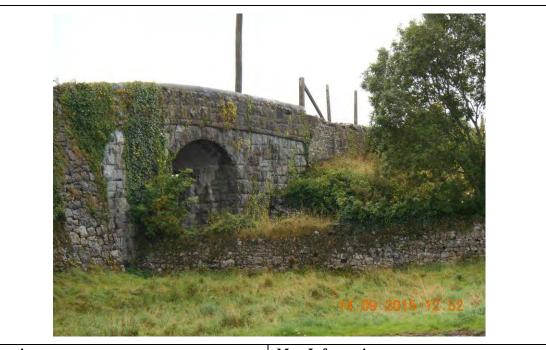
	- 1		
Location		Map Information	5 16 37
Name	Barefield R ailway Bridge		Clare
Address			6 inch
Reg. No.	OBE 91		Map OS 58
Area			
Townland	Barefield		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use	1060		
Date	1868		
Categories of Specie			
Code:	Technical D esign Materials		
Condition: Good	11/10/11/015	Rating: Local	
	ion	Kaung. Local	
Summary Descript	r usticated, limestone, r oac	lover reil bridge o 10	54 D rafted rusticate
voussoirs. Battered	, dry limestone, buttress to w	vest. Modern cast concr	rete parapet capping.



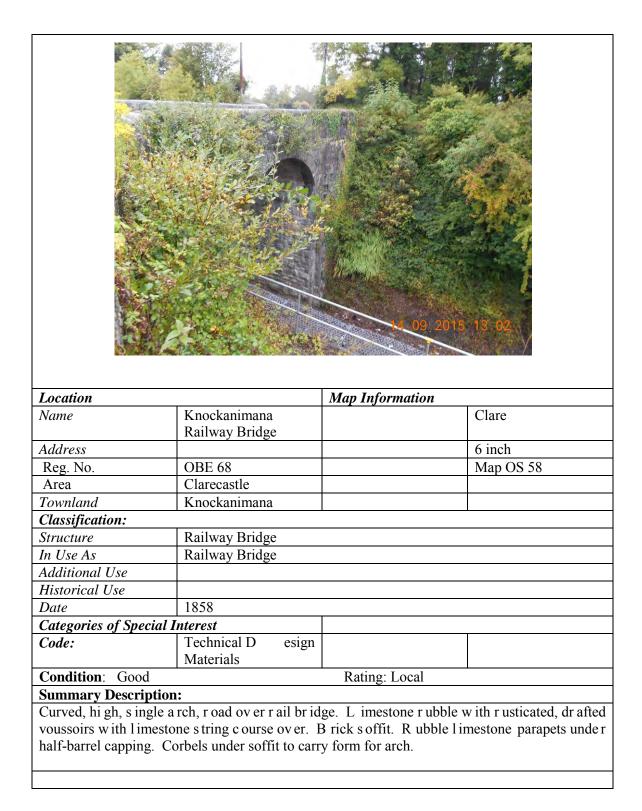
			15 10 57
Location		Map Information	
Name	Tulla R oad R ailway Bridge		Clare
Address			6 inch
Reg. No.	UBE 78		Map OS 58
Area	Ennis		
Townland	Knockanoura		
Classification:	1	1	
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use	_		
Historical Use			
Date	1868 and 2007		
Categories of Specie	al Interest		
Code:	Technical D esign Materials		
Condition: Good		Rating: Local	
Summary Descript Rail over road bridg limestone abutments	ion: ge. Modern metal and conc a. Modern pedestrian way to	rete deck resting on or o the side.	iginal, ashlar, rusticated,

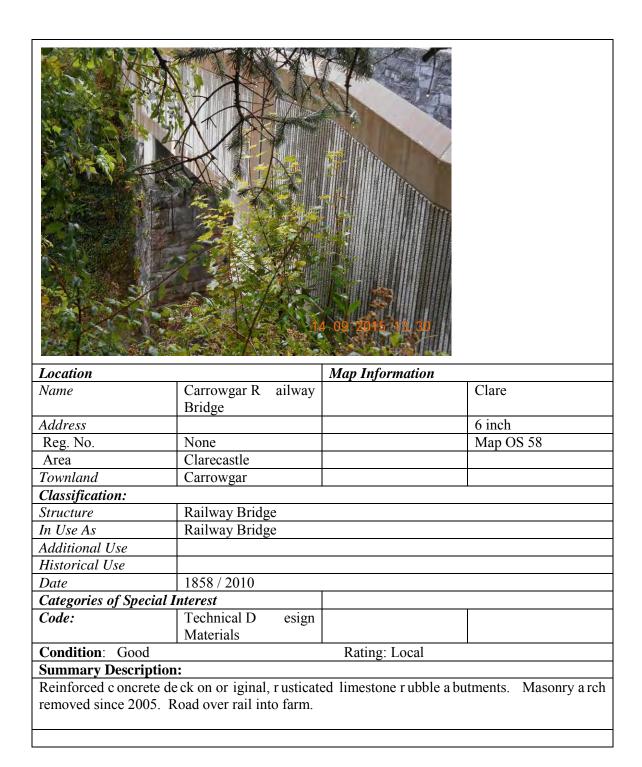
		14.09.20	115 11:09
Location Clonroadh	beg Railway Bridge Clonroad R ailway	Map Information	Clare
Ivanie	Bridge		Cluic
Address			6 inch
Reg. No.	None		Map OS 58
Area	Ennis		
Townland	Clonroadbeg		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1868 and 20 th century		
Categories of Specia	· · · · · · · · · · · · · · · · · · ·		
Code:	Technical D esign Materials		
Condition: Good		Rating: Local	
Summary Descripti	on:		
	over River Fergus support	ed by reinforced concre	te columns in river.
	- 0		

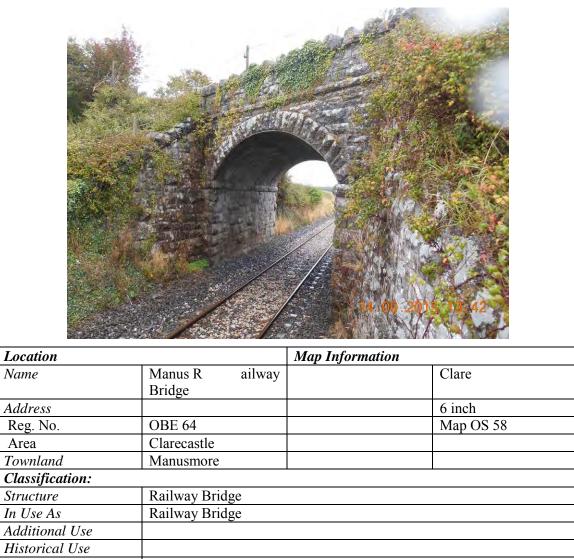




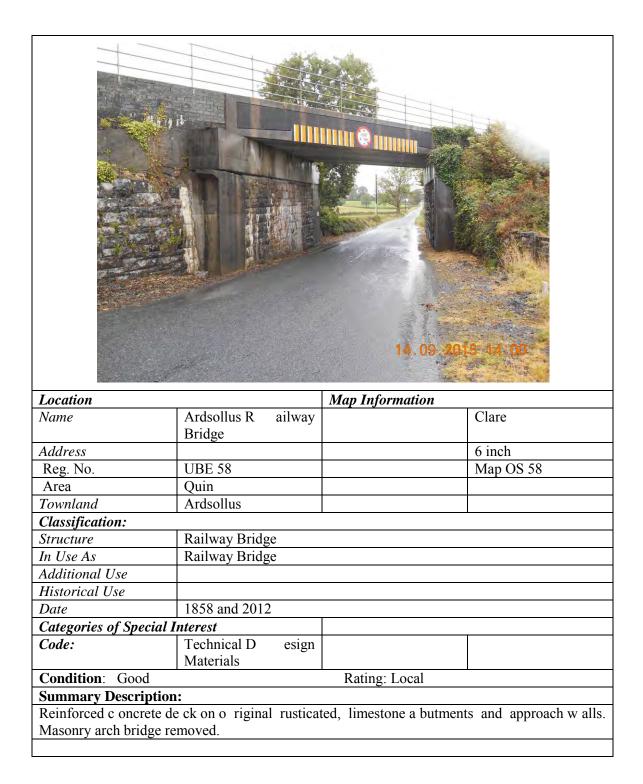
Location		Map Information	
Name	Skehanagh R ailway		Clare
	Bridge		
Address			6 inch
Reg. No.	OBE 71		Map OS 58
Area	Clarecastle		
Townland	Skehanagh		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1858		
Categories of Special	Interest		
Code:	Technical D esign		
	Materials		
Condition: Good		Rating: Local	
Summary Description	n:		
Single-arch, road ov e	r rail bridge. R usticated	, a shlar, limestone, v c	oussoirs, spandrels, s tring
course and parapets. H	Half-barrel rusticated para	pet capping.	







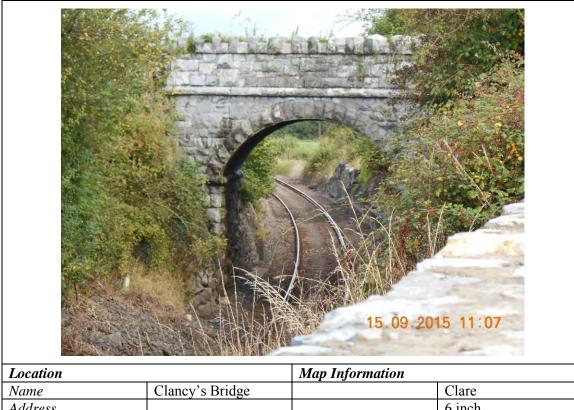
Single arch, road over rail, rusticated, rubble, limestone bridge with advanced, rusticated and drafted limestone voussoirs. String course under arch-soffit and under rubble limestone parapet with cow-and-calf capping.



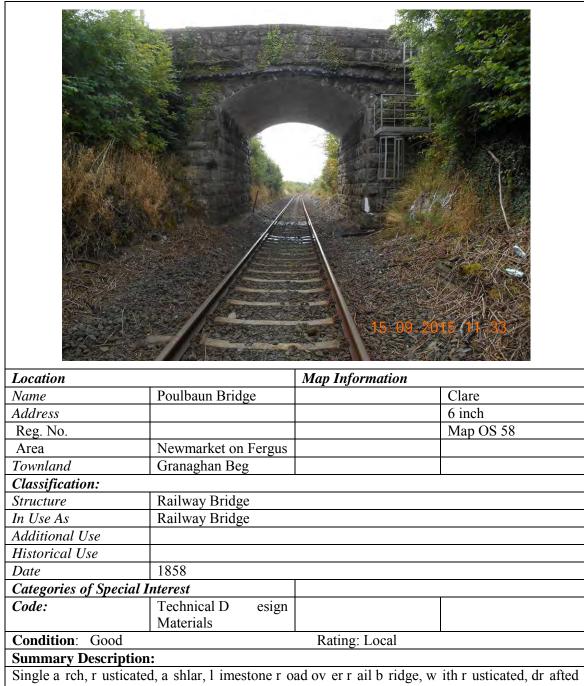
Location	A - 1 D	Map Information	Class
Name	Aylecotty Bridge		Clare 6 inch
Address Reg. No.	OBE 56		
Area	Quin		Map OS 58
Townland	Aylecotty		
	Aylecotty		
Classification: Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1858		
Categories of Speci			
Code:	Technical D esign		
	Materials		
Condition: Good		Rating: Local	1
Summary Descript	tion:		
	ver rail bridge. Rusticated,	ashlar, limestone bridge	with rusticated, drafted
D1-1-1	imestone parapets with rusti	antad limastana anning	,

Location		Man Information	
Location Name	Mooghaun Bridge	Map Information	Clare
Name	Mooghaun Bridge	Map Information	Clare 6 inch
Name Address	Mooghaun Bridge OBE 55	Map Information	6 inch
Name		Map Information	
Name Address Reg. No.	OBE 55 Quin	Map Information	6 inch
Name Address Reg. No. Area Townland	OBE 55	Map Information	6 inch
Name Address Reg. No. Area Townland Classification:	OBE 55 Quin Mooghaun North Railway Bridge	Map Information	6 inch
Name Address Reg. No. Area Townland Classification: Structure In Use As	OBE 55 Quin Mooghaun North	Map Information	6 inch
Name Address Reg. No. Area Townland Classification: Structure In Use As Additional Use	OBE 55 Quin Mooghaun North Railway Bridge	Map Information	6 inch
Name Address Reg. No. Area Townland Classification:	OBE 55 Quin Mooghaun North Railway Bridge Railway Bridge	Map Information	6 inch
Name Address Reg. No. Area Townland Classification: Structure In Use As Additional Use Historical Use Date	OBE 55 Quin Mooghaun North Railway Bridge Railway Bridge 1858	Map Information	6 inch
Name Address Reg. No. Area Townland Classification: Structure In Use As Additional Use Historical Use Date Categories of Special	OBE 55 Quin Mooghaun North Railway Bridge Railway Bridge 1858 Interest	Map Information	6 inch
Name Address Reg. No. Area Townland Classification: Structure In Use As Additional Use Historical Use Date Categories of Special	OBE 55 Quin Mooghaun North Railway Bridge Railway Bridge 1858	Map Information	6 inch
Name Address Reg. No. Area Townland Classification: Structure In Use As Additional Use Historical Use Date Categories of Special Code:	OBE 55 Quin Mooghaun North Railway Bridge Railway Bridge 1858 Interest Technical D esign	Map Information	6 inch
Name Address Reg. No. Area Townland Classification: Structure In Use As Additional Use Historical Use Date Categories of Special Code: Condition: Good Summary Descriptio	OBE 55 Quin Mooghaun North Railway Bridge Railway Bridge 1858 Interest Technical D esign Materials	Rating: Local	6 inch Map OS 58

Bronze Age Gold Find, 1854.

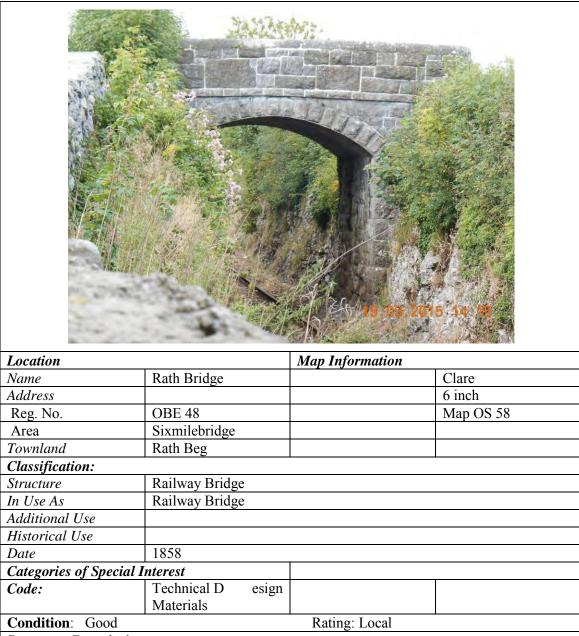


Location		Map Information	
Name	Clancy's Bridge		Clare
Address			6 inch
Reg. No.	OBE 54		Map OS 58
Area	Newmarket on Fergus		
Townland	Caherscooby		
Classification:		•	
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1858		
Categories of Special	Interest		
Code:	Technical D esign		
	Materials		
Condition: Good		Rating: Local	
Summary Descriptio	n:		
			heavy, rusticated, drafted
voussoirs and string c	ourses at arch springers	, and under parapet. A	A shlar l imestone pa rapet
under, rusticated cow-	and-calf capping.		



Location		Map Information			
Name	Ballycar R ailway Bridge	Clare			
Address		6 inch			
Reg. No.		Map OS 58			
Area	Newmarket on Fergus				
Townland	Ballycar				
Classification:					
Structure	Railway Bridge				
In Use As	Railway Bridge				
Additional Use					
Historical Use					
Date	1858 / 2013				
Categories of Specia					
Code:	Technical D esign Materials				
Condition: Good Rating: Local					
Summary Description:					
New reinforced deck replaced stone arch in 2013.					

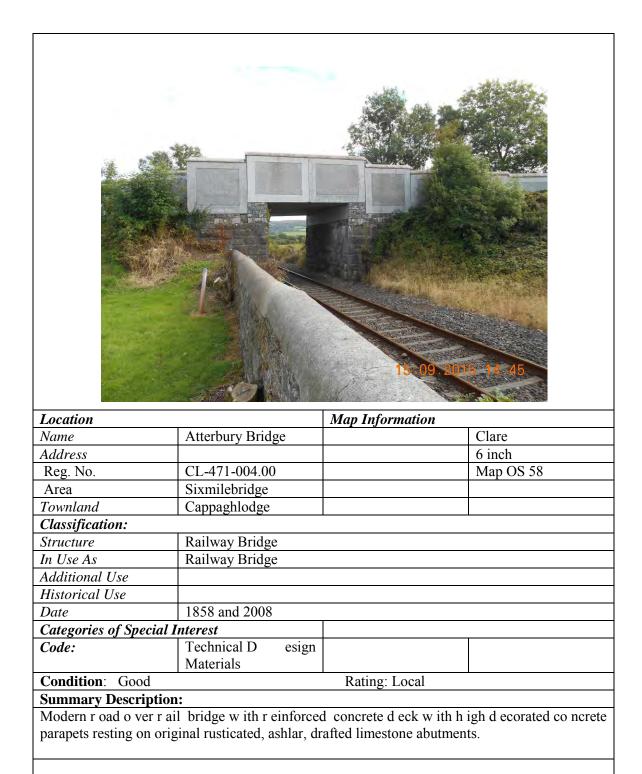
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Location		Map Information	1		
Name	Rathlaheen Bridge		Clare		
Address			6 inch		
Reg. No.	OBE 50		Map OS 58		
Area	Newmarket on Fergus				
Townland	Rathlaheen				
Classification:					
Structure	· _ · _ ·	Railway Bridge			
In Use As	Railway Bridge				
Additional Use					
Historical Use					
Date	1858	ſ			
Categories of Specia					
Code:	Technical D esign				
	Materials				
Condition: Good		Rating: Local			
Summary Description:					
Single elliptical arch, road over rail bridge. R usticated, drafted ashlar limestone ab utments,					
voussoirs, a nd s pandrels. R obust s tringcourse un der l imestone pa rapets w ith ha lf-barrel					
limestone capping. Brick soffit.					



Summary Description:

Single elliptical arch, rusticated, drafted, limestone road bridge over rail. Rustic string course over a rch, ashlar limestone parapets with half barrel capping. B rick soffit. Lately repointed with lime mortar.

		and the second sec
	Martic	
Econoch Dridge	Map Information	Clare
reenagn bridge		
ODE 47		6 inch
		Map OS 58
Feenagh (Wilson)		
Railway Bridge		
Railway Bridge Railway Bridge		
Railway Bridge		
Railway Bridge		
Railway Bridge 1858 nterest		
Railway Bridge		
Railway Bridge 1858 Iterest Technical D esign	Rating: Local	
Railway Bridge 1858 Iterest Technical D esign		
	Feenagh Bridge OBE 47 Sixmilebridge Feenagh (Wilson)	OBE 47 Sixmilebridge





Location		Map Information	
Name	Rossmanagher Bridge		Clare
Address			6 inch
Reg. No.	UBE 45		Map OS 58
Area	Sixmilebridge		
Townland	Sixmilebridge		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1858		
Categories of Special	Interest		
Code:	Technical D esign Materials		
Condition: Good		Rating: Local	
Summary Descriptio	n:		
Metal deck, rail over r	road bridge on rusticated li	imestone abutments.	



Location		Map Information	
Name	Owenogarney Railway Bridge		Clare
Address			6 inch
Reg. No.	UBE 41		Map OS 58
Area	Sixmilebridge		
Townland	Carrownerribul		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1858 and c.2010		
Categories of Special	Interest		
Code:	Technical D esign Materials		
Condition: Good	Rating: Record Only		
Summary Description	on:	•	
Modern, reinforced c	oncrete, flat deck, rail ove	er road, bridge, resting	on concrete abutments or
original rusticated ash	nlar limestone abutments.		

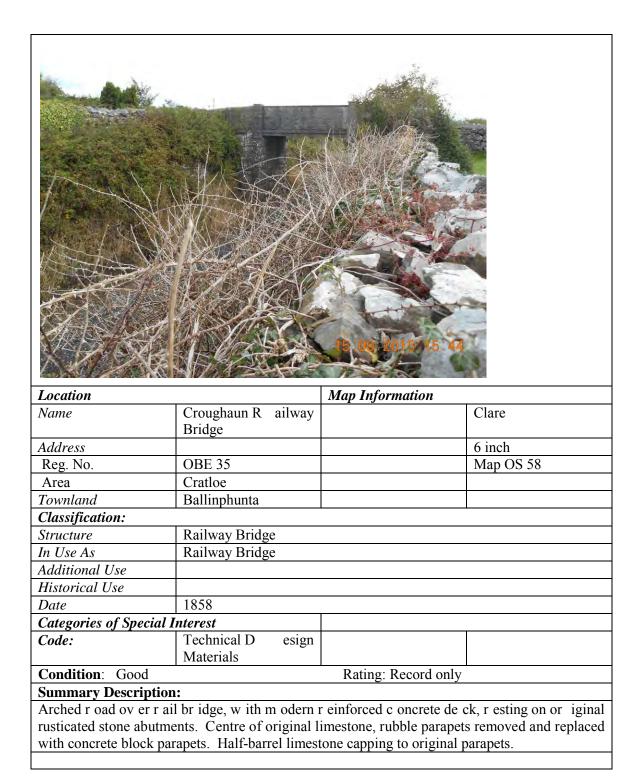


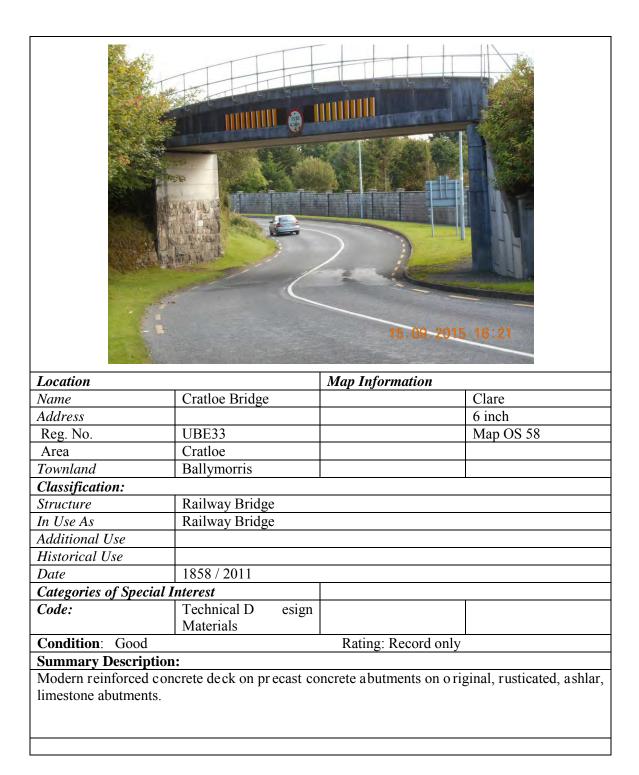
Location		Map Information	
Name	Ballinphunta R ailway Bridge		Clare
Address			6 inch
Reg. No.	249		Map OS 58
Area	Cratloe		
Townland	Ballinphunta		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1858		
Categories of Special	Interest		
Code:	Technical D esign		
	Materials		
Condition: Good		Rating: Local	
Summary Description	on:	-	
· · ·	rail over farm track, brid	ge. R usticated limes	tone, drafted voussoirs o
battered a butments w	ith l imestone r ubble, s pl	aved wing walls with	h rustic capping. P arap

battered a butments with l imestone r ubble, s played wing walls with r ustic c apping. P arapet removed and replaced with concrete wall and metal railings.



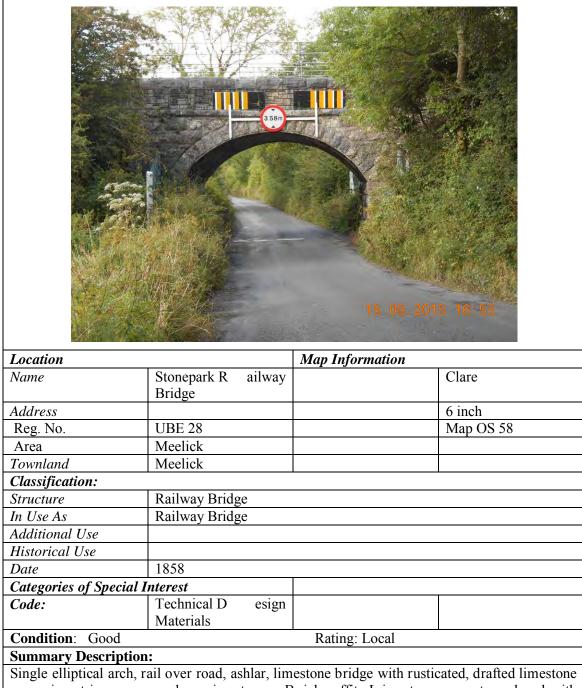
Location		Map Information	
Name	Brickhill Bridge		Clare
Address			6 inch
Reg. No.	OBE 102		Map OS 58
Area	Cratloe		
Townland	Ballinphunta		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1858		
Categories of Special	Interest		
Code:	Technical D esign		
	Materials		
Condition: Good		Rating: Local	
Summary Description	on:		
	, rail over road bridge, rust		
	ring c ourses a t a rch s prin		
	e limestone wing walls wi l with concrete walls and n		es. P art of parapet walls







Location		Map Information	
Name	Punchbowl R ailway Bridge	Clare	
Address		6 inch	
Reg. No.	OBE 29	Map OS 58	
Area	Cratloe		
Townland	Punchbowl		
Classification:			
Structure	Railway Bridge		
In Use As	Railway Bridge		
Additional Use			
Historical Use			
Date	1858		
Categories of Special	Interest		
Code:	Technical D esign Materials		
Condition: Good		Rating: Local	
Summary Description	n:		
Single elliptical arch,	road over rail, limestone	bridge. A shlar, rusticated, limestone voussoir	
abutments, string cou	rses and parapet walls un	der half-barrel limestone capping. Memorial t	
War of Independence	volunteers Capt. Michael	Gleeson and Capt. Christopher McCarthy.	





Pass Railway Bridge		
		Clare
		6 inch
OBE 21		Map OS 58
Meelick		
Pass		
Railway Bridge		
Railway Bridge		
1858		
Interest		
Technical D esign Materials		
	Rating: Local	
n:		
ed, l imestone, r oad ov e	r rail, b ridge w ith a	shlar, r usticated, d rafted
parapet walls and capping	stones.	
	Meelick Pass Railway Bridge Railway Bridge 1858 Interest Technical D esign Materials n: ed, 1 imestone, r oad ov e	Meelick Meelick Pass Pass Railway Bridge Pass Railway Bridge Pass 1858 Pass Interest Pass Technical D esign Materials Pass Rating: Local Pass