

The background is a vibrant red field with several abstract geometric shapes. In the top left, there's a green quarter-circle and a blue semi-circle. In the top right, there's a blue semi-circle with a white circle inside, and a dark blue horizontal bar. In the bottom left, there's a blue semi-circle with a white circle inside, and a dark blue semi-circle below it. In the bottom right, there's a large green semi-circle and a red semi-circle with a white outline. The text is positioned in the upper left quadrant of the red field.

Appendix P
Structures File Note



Lucan to City Centre Structures File Note

Package A
BCIDA-ACM-STR_ZZ-0006_XX_00-TN-CB-0003

Client – National Transport Authority
Stage – Stage 2

Project reference: BusConnects Package A
Project number: 60599123
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1. Introduction

The BusConnects Dublin – Core Bus Corridor (CBC) Infrastructure Works (herein after called the CBC Infrastructure Works) involves the development of continuous bus priority infrastructure and improved pedestrian and cycling facilities on sixteen radial core corridors in the Greater Dublin Area.

The National Transport Authority (NTA) have appointed AECOM in association with Mott MacDonald to undertake the design of the infrastructure works for Package A of the BusConnects Programme. Package A includes the following four bus routes:

- Clongriffin to City Centre CBC
- Lucan to City Centre CBC
- Clondalkin to Drimnagh CBC
- Tallaght to City Centre CBC

Each route contains several bridge structures with various structural forms. This file note covers the existing structures located on the Lucan to City Centre CBC. The following table details each of the existing structures and any proposed works/alterations covered under BusConnects Package A.

Structure Name	TII Reference Number	ITM Coordinates	Chainage	Description
Ballyowen Road Bridge	SD-N04-007.00	704861.066, 735315.957	A25	<p>The Ballyowen Road Bridge is an existing N4 Overbridge which carries the R136 regional road. The superstructure is composed of four spans formed of a post tensioned voided slab continuous over the intermediate supports. The total span length is 54.5m. The structure was widened in circa 2005 to provide additional cross-sectional capacity. The current cross section carries a bus lane and traffic lane in each direction with a total width from parapet edge beam to parapet edge beam of 15.1m.</p> <p>No changes are proposed to this structure as part of BusConnects.</p>
Ballydowd Pedestrian Bridge	SD-N04-007.00	704873.521, 735324.544	A40	<p>The Ballyowen Road Pedestrian Bridge is an existing N4 Overbridge which runs parallel to the Ballyowen Road Bridge carrying pedestrians over the N4. The superstructure is a single span arched truss painted steel structure. The total span length is approximately 51.0m.</p> <p>This structure is to be demolished and replaced with CBC06-ST03 Ballydowd Pedestrian and Cycle Bridge as part of BusConnects Package A</p>
St. Lomans Pedestrian Bridge	SD-N04-008.00	705710.811, 735464.595	A920	<p>St Lomans Pedestrian Bridge is an existing single span post tensioned concrete N4 Overbridge. The bridge also includes significant concrete approach ramps. The total span of the bridge is approximately 34m.</p> <p>No changes are proposed to this structure as part of BusConnects.</p>
R133 Underbridge	SD-N04-009.00	706374.228, 735244.196	A1620	<p>The R133 Underbridge forms part of Junction 2 on the N4 and provides the main access route to the LVSC. The existing bridge superstructure is formed of precast prestressed concrete beams with an insitu concrete deck.</p> <p>No changes are proposed to this structure as part of BusConnects.</p>
Liffey Valley Pedestrian and Cycle Bridge	SD-N04-0010.00	707162.687, 735199.886	A2430	<p>The Liffey Valley Footbridge is an existing warren truss structure with associated access ramps and stairs over the N4 national road. The span of the structure is approximately 61m long. The bridge provides a pedestrian and cycle route to the LVSC via the existing bus stops along the N4. The bridge also provides access to the Old Lucan Road and Kings Hospital School.</p> <p>Under the BusConnects proposals the existing bridge will be reclassified as a cycle only bridge and the existing pedestrian access steps and ramp on the south side will be removed. All pedestrian flows will be accommodated on the proposed new bridge CBC006-ST01 Liffey Valley Pedestrian Bridge. New sections of parapet will be provided where structural elements such as steps are to be removed. These parapets will match the form and construction of the existing parapets for continuity.</p>

Structure Name	TII Reference Number	ITM Coordinates	Chainage	Description
R148 Eastbound M50 Diverge Underbridge	SD-N04-010.20	707392.740, 735217.968	A2650	<p>The R148 Eastbound M50 Diverge Underbridge forms part of the M50 Junction No 7. The bridge provides a M50 diverge to join the R148 heading eastbound to the city centre via Palmerstown and the Chapelizod Bypass. The bridge is a two-span precast beam structure with a total span length of approximately 45m.</p> <p>No changes are proposed to this structure as part of BusConnects.</p>
R148 Eastbound M50 Overbridge	SD-N04-010.20	707565.805, 735336.178	A2850	<p>The R148 Eastbound M50 Diverge Underbridge forms part of the M50 Junction No 7. The bridge allows traffic travelling from the N4 to join the R148 heading eastbound to the city centre via Palmerstown and the Chapelizod Bypass. The bridge is a two-span post tensioned box girder with a total span length of approximately 46m.</p> <p>BusConnects proposals for this structure indicate a reclassification of existing road space from three traffic lanes down to two traffic lanes with an east bound bus lane. This change does not cause an alteration to the notional bridge lanes and as such a Stage 1 Structural Assessment is not required.</p>
N4 Eastbound M50 Merge Overbridge	SD-M50-002.00	707551.890, 735200.660	A2850	<p>The N4 Eastbound M50 Merge Overbridge forms part of the M50 Junction No 7. The bridge allows N4 traffic travelling eastbound to merge with the M50 going southbound. The bridge is formed of a two-span post tensioned box girder and runs parallel to SD-M50-002.10 with a minor offset. The total span length is approximately 53m.</p> <p>No changes are proposed to this structure as part of BusConnects.</p>
N4 Westbound M50 Overbridge	SD-M50-002.10	707548.680, 735181.412	A2850	<p>The N4 Westbound M50 Overbridge forms part of the M50 Junction No 7. The bridge allows three lanes of traffic travelling westbound from the city centre via Palmerstown and the Chapelizod Bypass to join the N4 heading west. The bridge also provides single lane access to the M50 heading northbound. The bridge is located parallel to SD-M50-002.00 and is formed by a two-span precast beam superstructure with a total span length of approximately 53m. The bridge is located at 707548.680, 735181.412 (ITM).</p> <p>As part of BusConnects it is proposed to reclassify one of the existing traffic lanes heading westwards to a designated bus lane. This change does not cause an alteration to the notional bridge lanes and as such a Stage 1 Structural Assessment is not required.</p>

Structure Name	TII Reference Number	ITM Coordinates	Chainage	Description
N4 Westbound M50 Diverge Underbridge	SD-N04-010.40	707661.576, 735330.604	A2950	<p>The N4/R148 Eastbound M50 Diverge Underbridge forms part of the M50 Junction No 7. The bridge allows traffic travelling southbound to diverge from the M50 and continue westbound on the N4 passing underneath two lanes of the R148. The bridge is a single span reinforced concrete portal frame structure with a total span length of approximately 12m.</p> <p>Under the BusConnects proposals an additional bus lane will be incorporated over the structure parallel to the R148. The additional lane will be located in an existing white hatched area that is part of the original notional lanes of the structure. No Stage 1 Structural Assessment is required as a result.</p>
M50 Footbridge	SD-M50-000.80	707586.322, 735444.894	A2850	<p>The M50 Footbridge provides a pedestrian and cycle route over the M50 and connects to the existing pedestrian and cycle facilities along the N4, Old Lucan Road and Palmerstown. The bridge is a two-span post tensioned concrete box girder with a total span length of approximately 82m.</p> <p>No changes are proposed to this structure as part of BusConnects.</p>
Kennelsfort Rd/ R143 Pedestrian bridge	N/A	708372.983, 735097.869	A3700	<p>The Kennelsfort Road Bridge is an existing multi span post tensioned concrete bridge with integral spiral approach ramps. The bridge spans over the R143 Chapelizod Bypass providing access to the northern and southern sections of Palmerstown village. The total span length of the bridge is 139m with a main bridge span of approximately 33m spanning over 7 lanes of the R148 Palmerstown Bypass.</p> <p>No changes are proposed to this structure as part of BusConnects.</p>
R112 Kylemore Road Underbridge	N/A	709648.993, 734582.788	A5100	<p>The bridge is a 3-span voided concrete slab structure continuous over its intermediate supports and carries the 6 lanes of the R148 Chapelizod Bypass over the R112 Kylemore Road providing direct access between Ballyfermot to Chapelizod villages. The total span of the structure is approximately 40m.</p> <p>No changes are proposed to this structure as part of BusConnects.</p>
Chapelizod Hill Road Underbridge	N/A	710010.120, 734249.929	A5650	<p>Chapelizod Hill Road Underbridge provides a one-way access route from Chapelizod to Ballyfermot under the R148 Chapelizod Bypass. The bridge is a single span insitu reinforced concrete box with a span length of 9.9m. The Chapelizod Hill Road is on a steep incline through the structure and as a result the headroom clearance varies beneath the structure to a minimum of 2.8m at the southern side.</p> <p>Under the BusConnects proposals this structure is to be widened on the northern side to accommodate additional capacity for a bus stop. The widening is covered under CBC06-ST02 Chapelizod Hill Road Bridge Widening.</p>

Structure Name	TII Reference Number	ITM Coordinates	Chainage	Description
St Laurence's Road Underbridge	N/A	710576.692, 733983.141	A6300	The St Laurence's Road Underbridge is a single span high skew prestressed beam bridge with a span length of approximately 20m (skew length). The bridge provides access under the R148 Chapelizod Bypass from Chapelizod Village towards Kilmainham via St Laurence's Road. No changes are proposed to this structure as part of BusConnects.
Pedestrian Bridge over R148	N/A	711465.823, 733935.558	A7250	This pedestrian bridge is a three-span post tensioned concrete structure spanning over the R148 Chapelizod Bypass. The bridge provides access from the Liffey Gaels GAA Club and Sarsfield Road to the War Memorial Gardens in Island Bridge. No changes are proposed to this structure as part of BusConnects.
OBC3 Memorial Road Rail Bridge	N/A	712083.256, 733817.027	A7870	OBC3 is an existing road bridge which carries two lanes of traffic in one direction from the Inchicore Road to the R148 Chapelizod Bypass/Con Colbert Road. The bridge was built in the 1950s with a deck consisting of concrete encased steel I-beams that support a transverse spanning concrete slab. The span of the bridge is approximately 12.2m. Three railway lines currently pass underneath serving all lines from Heuston Station to Cork, Limerick and Waterford. No changes are proposed to this structure as part of BusConnects.
OBC1 South Circular Road (Con Colbert road) Westbound Rail Bridge	N/A	712675.273, 733918.044	A8450	OBC1 carries the South Circular Road over the railway lines from Heuston Station to Cork, Limerick and Waterford. The original OBC1 rail overbridge was widened in the early 1990s. The deck of both the original OBC1 Bridge and its widening consist of pre-stressed concrete bridge girders on supported on bearings. The span of the bridge is approximately XXX m and is located at 712675.273, 733918.044 (ITM). Under the BusConnects proposals the notional lanes of the existing bridge will be redistributed to provide an additional left turn lane from St Johns Road West to the South Circular Road. This change does not cause an alteration to the notional bridge lanes and as such a Stage 1 Structural Assessment is not required.
OBC0A South Circular Road (Con Colbert road) Eastbound Rail Bridge	N/A	712743.056, 733965.423	A8550	OBC0A takes traffic over the railway from the South Circular Road and the Chapelizod Bypass / Con Colbert Road onto St. John's Road West. The bridge is a two-span bridge constructed in the late 1980s / early 1990s. The southern and northern span of the structure are approximately 17.4m and 15.7m respectively. The bridge is formed of skewed pre-stressed concrete beams. No changes are proposed to the structure as part of BusConnects.

Structure Name	TII Reference Number	ITM Coordinates	Chainage	Description
Frank Sherwin Bridge	N/A	713797.218, 734361.344	A9694	<p>The Frank Sherwin Bridge is the final bridge along CBC006. The bridge carried traffic in a northward direction over the River Liffey at Heuston Station. The insitu reinforced concrete three span bridge was constructed in the early 1980s with a total span length of 50m.</p> <p>No changes are proposed to the structure as part of BusConnects.</p>

Appendix A Location Plans





