



ABN 23 039 013 724
Level 2, Building 8
Forest Central Business
49 Frenchs Forest Road East
Frenchs Forest NSW 2086

PO Box 652
Forestville, NSW, 2087
PH: (02) 9451 3455
FX: (02) 9451 3466
Email:info@dbce.com.au

Ref: 22038

24th October 2022

Brett Hutton
JCDecaux
Unit 2-3, 182-190 Euston Rd,
Alexandria NSW 2015

RE: Princes Hwy, Heathcote, NSW
Supersite LED Signage, Structural Feasibility Statement

This Structural Feasibility Statement has been conducted by Dennis Bunt Consulting Engineers Pty Ltd (DBCE) at the request of JCDecaux.

The proposed sign is documented in the DA drawings by DBCE 22038 / DA01(D), DA02(D) and DA02(A).

A survey of the site was commissioned by JCDecaux.

The signage will consist of a Supersite LED screen with visual screen dimensions of 12480mm horizontally x 3200mm vertically. The top of the LED screen will be located approximately 6.5m above the ground. The inside of the box will be able to be accessed from a hatch in the underside of the box to enable maintenance of the LED screen from behind. There will be a 400mm skirt under the sign consisting of black ACM sheet.

Site Description

The site is located between a fence near Princes Hwy to the west and Sydney Trains tracks to the east.

The ground is relatively flat and covered with grass. The distance between the fence and the track is approximately 19m. One edge of the sign will be located 600mm from the fence and the other edge of the sign approximately 4.4m from the edge of the track.

There is an existing double sided front lit sign that will be removed north of the proposed new LED sign.

The steel frames and sign face will be removed, however as the sign is in the rail corridor and not accessed by the public the existing footings can remain in place. For safety the holding down bolts will need be cut off and ground back to the face of the footing.

Structural Description

Steel frame

The structure will consist of a rectangular steel box which will act as a three dimensional welded steel frame. A steel column will be bolted to a concrete footing and cantilever vertically approximately 6.5m from the concrete footing.

Three horizontal rails will be bolted to the column behind the signbox, the rails will cantilever 6.3m to each side of the column's centreline.

Z brackets fixed to the back of the 3D box slot over the top of the rails when the 3D box and LED screen are lifted into position by crane and are screw fixed to the rails at each end.

The LED screens will be assembled in the contractor's factory and clamped to the welded box so they can be transported to site as one unit.

The column will be transported separately.

The weight of the 3D box including the digital screens and cladding is approximately 5 tonnes. The weight of the support structure is approximately 2 tonne.

The sign is to be designed for a wind load for region A, terrain category 2.5 and a 50 year design life in accordance with AS1170.2.

Footing

As the ground is relatively flat and there is sufficient space between the fence and the Sydney Trains track a pad footing approximately 4m square and 1.5m deep is the preferred option.

Recommendations

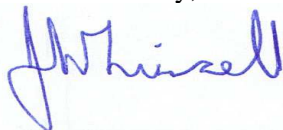
Based on the survey and our preliminary design we see no reason why the cantilevered signage cannot be installed.

A geotechnical report is commissioned to provide information on the soil and its profile.

A services search is undertaken in the area of the footing.

If you have any questions, please do not hesitate to ring the undersigned on 9451 7757

Yours Faithfully,



John Linsell BE(Hons), MIEAust, CPEng, NPER(Struct)
for Dennis Bunt Consulting Engineers Pty Ltd