

Subject: FW: lighting level assessment for pedestrian crossing - quote
Date: Friday, 5 June 2020 at 6:04:53 pm Australian Eastern Standard Time
From: Jenny Watt
Attachments: image001.jpg, image002.jpg, image003.jpg, image004.jpg

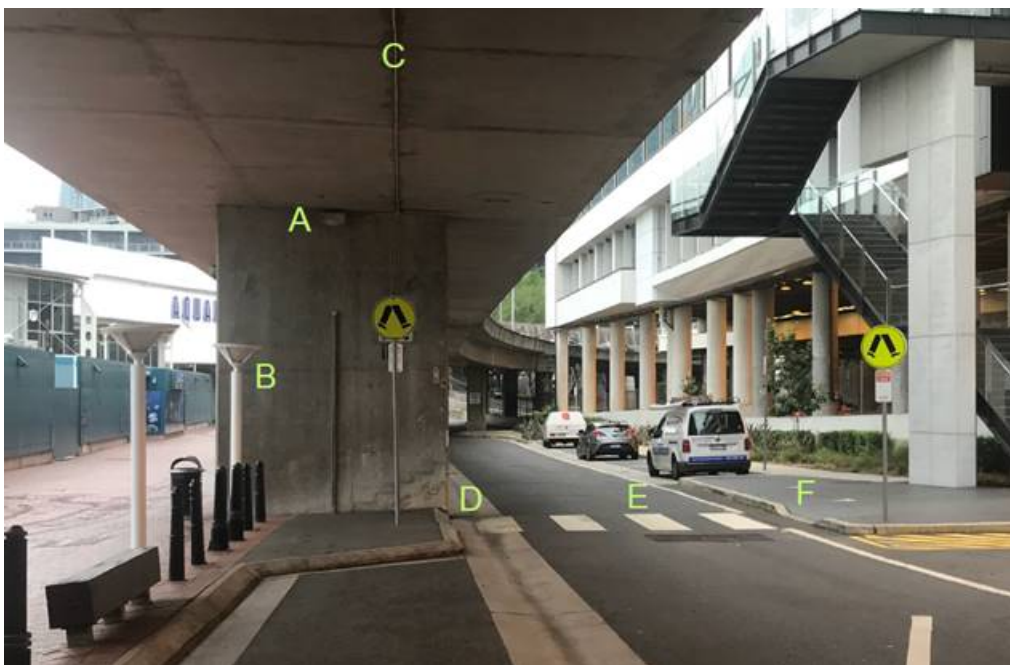
From: Cheralee Heynes <cheralee@jdg.com.au>
Date: Sunday, 19 April 2020 at 6:31 pm
To: Jenny Watt <jenny@mandlinvestments.com.sg>
Cc: Michael Babbage <Michael.Babbage@ttw.com.au>, "Stephen. Brain" <Stephen.Brain@ttw.com.au>
Subject: RE: lighting level assessment for pedestrian crossing - quote

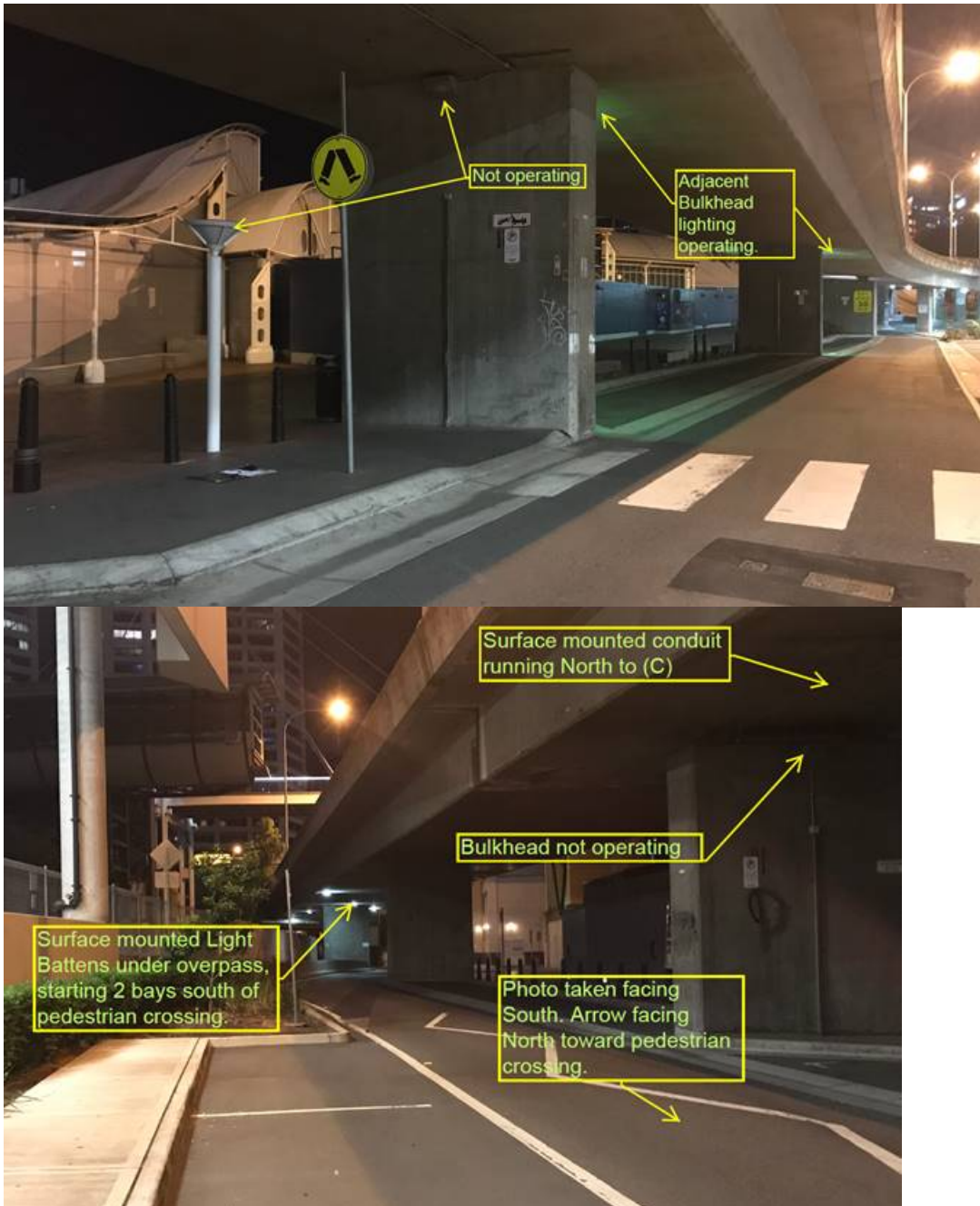
Hi Jenny,

Further to our site visit with Stephen Brain and discussions with you, we have measured lighting illumination levels vertically at the pedestrian crossing to assess compliance. The road is single lane and one way from the South and compliance is achieved with minimum 32 Lux vertical illumination measurement in the plain facing south at 18 points across the pedestrian crossing to AS1158.4. The measurements were taken at 7pm.

The crossing unfortunately is not compliant although it is exposed to a large degree of light spill from the adjacent distributor road and lighting above. While on site the illumination levels achieved elsewhere in the vicinity were reviewed and operation of lighting confirmed.

The below are three photos taken. The first at day, second at night facing north toward the crossing and the third at night facing south away from the crossing.





Findings:

- The vertical illumination levels measured at all compliance points on the crossing ranged between 5.9 Lux (D) and 15.1 Lux (F). These values are lower than the minimum pedestrian crossing lighting levels of 32 Lux required.
- Adjacent Bulkhead (A) and Post Top (B) lighting are currently not operating. All lighting to the pedestrian crossing is currently from light spill.
- Bulkhead lighting in the adjacent northern bays are operating. In the locations shown above, vertical illumination levels measured at the adjacent bay were approximately 6 Lux and a maximum of 29 Lux was measured in the next northern bay. These measurements were taken at locations on the Western side of the road in line with (D). Illumination levels dropped away toward the opposing kerb in line with (F). These two bulkheads have different lamp sources and there is potential for an alternative lamp source to provide illumination above 32 Lux however this minimum level is unlikely to be achievable across all 18 compliance points of the crossing using the existing fitting type.
- An operating Post Top such as (B) luminaire was not found and could not be measured. The Post Top style is also not an appropriate light fitting to provide sufficient vertical illumination to a pedestrian crossing.

- The location of the existing bulkhead (A) is not positioned to provide incident light on the crossing from the direction of the oncoming traffic (the plain used to measure the vertical illumination for compliance)
- It is concluded the existing luminaires, if operational, or upgrade of these luminaires, will not provide the required illumination levels to achieve compliance.

Recommendation for compliance:

- Install a directional flood light at (C), directed to the centre of the pedestrian crossing (E) and connect into an existing local lighting circuit.
- This arrangement needs the following confirmation:
 - Capacity to connect an additional 1 Amp into a local circuit. NB: This is unlikely to be an issue.
 - The local circuit is controlled by Photo electric (PE) Cell. This ensures the lighting will operate at all times in the absence of daylight such as the expected arrangement for the light battens under the overpass to the south.
 - Ownership of the lighting circuits. NB: It is expected the existing lighting circuits will be owned and operated by Transport NSW (RMS) due to the location and intended function.

Recommended action items:

- Confirm ownership of existing local lighting circuits;
- Obtain any existing information including as installed drawings or maintenance manuals if available.
- Obtain approvals to carry out the proposed work.
- Engage an electrical contractor to determine operation and connectivity of the local circuit proposed for connection.
- Suggest fixing existing lighting circuits to make existing post top and bulkhead lighting operational;

Please review and confirm how you wish to proceed.

Cheers,
Cheralee



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