memorandum

SHEPHERDS BAY URBAN RENEWAL

SECTION 75W TRAFFIC IMPACT STATEMENT

Holdmark has engaged Road Delay Solutions to undertake investigation and provide supporting information pertaining to modifications to the Shepherds Bay Urban Renewal Development sought by a Section 75W Application.

The nucleus of the Traffic Impact Assessment (TIA) will give detailed examination of...

- → The impacts of on the committed infrastructure projects associated with the Department of Planning and Infrastructure Concept Approval, MP09_0216
- \rightarrow The combined stage development,
- ightarrow The modifications recommended under the Section 75W Application, and
- \rightarrow Particular focus on all aspects of the Stage A development.

The TIA is to be submitted, under separate cover in due course.

The Section 75W Application proposes and comprises...

STAGES 2 and 3

- → Reduction of the largely unusable stepped terraces within the internal courtyards of each building. These have been replaced by a largely 'at grade' landscaping zone which reduces the amount of hard landscaping and increases the soft landscaping areas,
- → Amendments to the stepped terraces between Stage 2 and Stage 3 buildings. The current scheme proposed two separate lifts to enable people to traverse from Nancarrow Avenue to Rothesay Avenue. The second lift stopped approximately 4m above the landscaped paving toward Rothesay Avenue and then people traversed a series of ramps and/or stairs to access the lower part of the site. The proposal has one lift that takes people from Nancarrow Avenue to to the Upper Basement level. The large curved stairs at Upper Basement and the series of steps between the multiple levels have been deleted. This improves accessibility throughout the site.
- → The proposed Café, which is currently at Lower Ground level or over 4m above Rothesay Avenue, has been relocated to the Upper Basement level, which allows far greater connectivity incorporating the adjusted landscape areas at this level.
- → People now have the advantage of being able to access the internal courtyards of both buildings at the Upper Basement levels via generous links through both Stage 2 and Stage 3 buildings. This enables connectivity between the buildings that was not previously available.

ROAD DELAY SOLUTIONS

- → The current DA has three storeys of very large unusable space against the cliff. These spaces have been activated by adjusting the car parking areas and apartments as shown. This activates the unusable space by using it as car parking, a potential gym one storey below Nancarrow Avenue and Services spaces.
- → Removal of unnecessary walling needed to cope with the varying terrace levels both between the two buildings and within their respective internal courtyards.
- \rightarrow The number of water features have been reduced and refined.
- → 28 apartments have been added over and above the 17 included as part of the deed of agreement.

STAGES 8 and 9

- \rightarrow 422 residential apartments.
- \rightarrow Construction of a Community Centre.
- → Construction of a Café.
- \rightarrow Construction of a Restaurant.

STAGE A

- \rightarrow 68 single (1) bed apartments,
- \rightarrow 94 two (2) bed apartments,
- \rightarrow 27 three (3)bed apartment,
- \rightarrow 2,511m² of retail Supermarket floor space,
- \rightarrow 470m² of retail specialty shop floor space,
- → 251m2 of Café floor space,
- → A loading dock servicing the retail operations and residential service vehicles
- \rightarrow 269 residential parking spaces, and
- \rightarrow 147 retail parking spaces.

Situated on the parcel of land generally bounded by Church Street to the east, Well Street to the north, Parsonage Street to the west and the Loop Road to the south, Stage A is located within the precinct formerly identified as the Meadowbank Employment Area (MEA) and the ultimate stage in the development.





ROAD DELAY SOLUTIONS2/12 Flitton Valley Close | FRENCHS FOREST NSW 2086 AUSTRALIA
Mobile 0414 800 912 Email gvarley@bigpond.com

The assessment will consider the traffic generation associated with each prescribed land use in fostering a sustainable outcome for both the local and arterial road networks.

| | No of | Vehicle Generation | | | | |
|--------------------|-----------------------|-----------------------------|-------------------------------|-------------------------|------------------------|--|
| Construction Stage | Apartments (units) | Adopted Rate per Unit | Vehicles per Hour (vph) | AM Outbound (80%) | AM Inbound (20%) | |
| 1 | 246 | 0.29 | 71 | 57 | 14 | |
| 2 and 3 | 498 | 0.29 | 131 | 105 | 26 | |
| 4 and 5 | 511 | 0.29 | 148 | 119 | 30 | |
| 6 and 7 | 311 | 0.29 | 90 | 72 | 18 | |
| 8 and 9 | 422 | 0.29 | 122 | 98 | 24 | |
| Stage A | 189 | 0.29 | 55 | 44 | 11 | |
| Totals | 2,177 | | 617 | 495 | 123 | |

The use of computer based mesoscopic modelling is being used to integrate the development vehicle generations with the prescribed TPDC growth projections to year 2026.

Table 1Residential Vehicle Generation by Development StageSourceHoldmark, 2015

| Development Component | Area (Units & GLFA m ²) | Daily RMS Trip Rate | AM Peak Hour GLFA RMS Trip Rate/m ² | PM Peak Hour GLFA RMS Trip Rate/m ² | AM Peak Hour Generation (vph) | PM Peak Hour Generation (vph) | AM Outbound Trips | AM Inbound Trips |
|--------------------------|-------------------------------------------|---------------------------|------------------------------------------------------------|------------------------------------------------------------|----------------------------------------|----------------------------------------|-------------------------|------------------------|
| Residential 1 Bed | 68 | 0.72 | 0.29 | 0.29 | 20 | 20 | 16 | 4 |
| Residential 1 Bed | 94 | 1.44 | 0.29 | 0.29 | 27 | 27 | 22 | 5 |
| Residential 1 Bed | 27 | 2.16 | 0.29 | 0.29 | 8 | 8 | 6 | 2 |
| Specialty Shops | 470 | 1.21 | 0.07 | 0.07 | 33 | 33 | 7 | 26 |
| Café | 251 | 0.11 | 0.02 | 0.02 | 5 | 5 | 2 | 3 |
| Supermarket* | 2511 | 1.21 | 0.08 | 0.08 | 201 | 201 | 131 | 70 |
| TOTAL | [#] 3,232m ² | 3877 | | | 294 | 294 | 183 | 111 |

*The Supermarket Generation rate is based upon the proposed 147 retail parking spaces having a turn-over rate in excess of 100% during the peak hour period [#] Combined retail GLFA excluding the shared loading dock

Table 2 Stage A Development Vehicle Generation

Source Holdmark, 2015

In particular, the Loop Road roundabout at Parsonage Street, the operation of Church Street, Well Street, Belmore Street and Constitution Road will be diligently analysed to attain a suitable outcome for all stakeholders. The Stage A access conditions and accommodation of specified vehicle classifications is currently under review.

The TIA will, ultimately, deliver a table of recommended infrastructure to sustain the full staged construction of the Shepherds Bay Urban Renewal Development, as proposed under the modifications outlined in the Section 75W Application.

Should you require clarification of any aspect pertaining to this submission, please contact Glen Varley on mobile 0414 800 912.

yours sincerely,

Glen Varley Director - Traffic and Transport ROAD DELAY SOLUTIONS Pty Ltd