ATTACHMENT 1
- Access Option 1 – Existing Churchill Avenue inbound only and existing Redmyre Road outbound only;
- Access Option 2 – New ramp up from Redmyre Road inbound and existing Redmyre Road outbound only;
- Access Option 3 – Proposed bridge from Albert Road car park over Churchill Avenue inbound and existing Redmyre Road ramp outbound; and
- Access Option 4 – New ramp up from Redmyre Road outbound and existing Redmyre Road ramp remain inbound

**Access Option 1**

**Option Description**

Access Option 1 proposes to close the existing exit on Churchill Avenue and retain the existing entry. The existing entry ramp adjacent at Orrs Lane would require the reversal in traffic flow to provide an exit from the roof level out on to Redmyre Road as indicated in Appendix A. Circulation on the roof level is to be change to help direct traffic exiting the car park. Additional signage is required to guide traffic short term access solutions up to the roof level to exit. The exit to Redmyre Road is “left –out” only, since this is an un-signalised intersection.

**Cost Estimate**

The cost associated with Access Option 1 design is minimal, including minor line marking changes on the roof level and additional signage on the first level to guide traffic up to the roof level to exit. A new prepaid boom gate and ticket dispenser machines are also required at the new exit on the roof level.

**Proposed Cost Estimate**

<table>
<thead>
<tr>
<th>Traffic Signs &amp; Line marking</th>
<th>Prepaid Boomgate &amp; Ticket Dispenser</th>
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<tr>
<td></td>
<td><strong>Total</strong></td>
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<td><strong>$50,000</strong></td>
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**Opportunities**

The opportunities for Access Option 1 are based on the conceptual functional design are as follows:
- Improve traffic flow on Churchill Avenue associated with the Raw Square intersection; and
- Minimum cost required to implement the traffic changes.

**Constraints**

Access Option 1 does not have many constraints as there were no redevelopments to the existing car park and only minor signs and line marking and a new prepaid boom gate machine. The constraints are follows.
- All traffic must exit the Strathfield Plaza car park via the roof level, effectively circulating up to exit. This can be improved with additional signage;
- Left out exit only on to Redmyre Road – this may require closure of the westbound “Shared Zone” at Strathfield Square to prevent detours by northbound exit traffic at Redmyre Road; and
- Churchill Avenue between the bus interchange and The Boulevarde may need to be closed to prevent northbound exiting traffic at Redmyre Road from making a round trip back on to
Churchill Avenue. Traffic heading to the east, west and south can use the surrounding local streets to get to their destination.

Access Option 2

Option Description

Access Option 2 proposes a new ramp up from Redmyre Road for inbound traffic only while the existing entry ramp adjacent to Orrs Lane would require the reversal in traffic flow to provide an exit from the roof level out on to Redmyre Road as indicated in Appendix B. New boom gates will be installed at the top of the new ramp and at the exit ramp on the roof level. The existing entry ramp could be duplicated to provide for a two lane ramp. The current width of Orrs Lane and the existing ramp are 6.3m and 5.0m respectively. However the duplication would narrow Orrs Lane to a 5.0m width which is substandard for two-way traffic. As mentioned in Access Option 1, circulation on the roof level is to be modified to help direct traffic exiting the car park. To exit the car park via the existing ramp adjacent to Orrs Lane, traffic is only allowed to make a left out on to Redmyre Road given that this is an un-signalised intersection. Churchill Avenue between the bus interchange and The Boulevarde may need to be closed to prevent northbound traffic from making a round trip back on to Churchill Avenue. The current deceleration lane on the northern side of Redmyre Road will be used for the new entry ramp. The footpath will be realigned to fit between the new ramp and the Redmyre Road traffic lanes. The width will be 1.5 m and there is a safety concern for pedestrian walking along a main arterial road with such a narrow footpath.

Cost Estimate

The cost associated with the Access Option 2 design would be considerably more than Access Option 1 as it requires extensive structural engineering works, power pole relocation, footpath remediation along the new ramp and others traffic management costs.

Proposed Cost Estimate

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Ramp Structure</td>
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<tr>
<td>Demo &amp; Facilitation</td>
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<tr>
<td>Design &amp; Project Management</td>
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<tr>
<td>Traffic Management</td>
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<td>Traffic Signs &amp; Line marking</td>
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<tr>
<td>Prepaid Boomgate &amp; Ticket Dispenser</td>
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<tr>
<td>Footpath Paving &amp; Access Ramp</td>
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<tr>
<td>Power Pole Relocation</td>
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<td><strong>Total</strong></td>
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Opportunities

The opportunities for Access Option 2 are based on the conceptual functional design are as follows:

- Additional entry from Redmyre Road to the first floor of the car park;
- Improved traffic flow on Churchill Avenue associated with the Raw Square intersection;
- Reduced inbound traffic via Albert Road; and
- Additional exit point for the car park using the existing ramp adjacent to Orrs Lane.
Constraints

Access Option 2 has various constraints as it involve a new ramp up from Redmyre Road and relocation of a power pole. The constraints are as follows:

- Proposed new ramp requires to be clear off existing emergency fire exit;
- Loss of three car parking spaces to accommodate the new ramp on the southern side of the car park;
- Narrow footpath adjacent to arterial road traffic;
- The duplication of the existing Redmyre Road ramp has a significant impact on Orrs Lane;
- Left out exit only on to Redmyre Road which may necessitate closure of the westbound “Shared Zone” at Strathfield Square to prevent detours by traffic heading north;
- No right turn causes problem for traffic entering into the car park coming from the south and east;
- Required modifications to the first floor traffic circulation; and
- Disruption to traffic on Redmyre Road and the car park during ramp construction.

Access Option 3

Option Description

Access Option 3 proposes a new bridge from the Albert Road car park over Churchill Avenue, which connects to the roof level of the Strathfield Plaza car park. As indicated in Appendix C this option creates an alternative for traffic to bypass the existing car park entry on Churchill Avenue. The exit will be the same as Access Option 1 & 2 where the existing entry ramp adjacent to Orrs Lane would require reversal in traffic direction to provide an exit from the roof level out on to Redmyre Road. There will be 14 cars parking spaces lost to accommodate the proposed bridge ramp entry (10 in the Council car park and 4 in Strathfield plaza car park). However, 8 cars parking spaces will be created under the ramp. Trees along the eastern car park fence might have to be removed as the ramp will be located along the car park fence. Minor line marking changes and the installation of a traffic island on the roof level will be required to inform drivers of the new traffic circulation. In addition, minor changes to the existing boom gate Redmyre Road ramp will be required to suit the new traffic arrangement. New boom gate should be installed at the top of the ramp on the roof level upon entry into the car park.

Cost Estimate

Cost associated with Access Option 3 design would be considerable as it requires major structural engineering works and other infrastructure costs.

Proposed Cost Estimate

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<tr>
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<td>Prepaid Boomgate &amp; Ticket Dispenser</td>
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<tr>
<td>Landscaping</td>
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<td><strong>Total</strong></td>
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Opportunities

Opportunities for Access Option 3 are based on the conceptual functional design and are as follows:
- Provide an alternative for traffic to bypass the existing car park entry on Churchill Avenue;
- Provide an additional exit point for the car park using the existing ramp adjacent to Orrs Lane.

Constraints

Access Option 3 has various constraints as it involves the proposed bridge ramp over Churchill Avenue. The constraints are as follows:
- This access option is not compatible with the Strathfield Council Town Centre Masterplan;
- A standard heavy vehicle vertical design clearance of 4.5m would need to be used for the design of the bridge over Churchill Avenue;
- Obscures the recently constructed Strathfield Plaza facade;
- Loss of 14 car parking spaces to accommodate the proposed bridge ramp entry (10 in the Council carpark, 4 in the Strathfield Plaza carpark);
- Traffic is required to exit the car park via the roof level using the existing ramp adjacent to Orrs Lane;
- Left out exit only on to Redmyre Road which may necessitate closure of the westbound “Shared Zone” in Strathfield Square to prevent detours by traffic heading north; and
- Disruption to traffic at the Council car park, Churchill Avenue and Albert Road during bridge and ramp construction.

Access Option 4

Option Description

Access Option 4 proposes a new ramp up from Redmyre Road to the first level of the Strathfield Plaza car park. This ramp will create an additional access to the first level. The existing ramp entry to the roof level adjacent to Orrs Lane will remain as it is. The traffic circulation on the first level and roof level of the car park will be maintained. The location of the proposed new ramp will be at the south western corner of the car park. Access Option 4 will require structural modifications on the southern side of Strathfield Plaza’s car park. The proposed new ramp starts at the western boundary of Strathfield Plaza. Three car parking spaces at the south western corner will be lost to accommodate the ramp approach. The existing fire exit will be obstructed by the new ramp which will require separate investigation. A structural engineering assessment of the existing car park is required to confirm if the car park has the extra capacity for the proposed new ramp on Redmyre Road. The footpath is relocated around the proposed ramp leaving a 1.5m wide pathway between the ramp and the Redmyre Road traffic lanes. Currently, there are a few small trees planted on the northern road side reserve of Redmyre Road. These trees will have to be removed or relocated.

Access Option 4 Cost Estimate

Costs associated with the Access Option 4 design are considerable as it requires construction of a new ramp and other infrastructure, however the costs are conservative in comparison to Option 3.
**Proposed Cost Estimate**

Ramp Structure  
Demo & Facilitation  
Design & Project Management  
Traffic Management  
Traffic Signs & Line marking  
Prepaid Boomgate & Ticket Dispenser  
Footpath Paving & Access Ramp  
Power Pole Relocation  

**Total** $340,000

**Opportunities**

Opportunities for Access Option 4 are based on the conceptual functional design and are as follows:

- Provide an additional exit from the car park first floor down to Redmyre Road.

**Constraints**

- Loss of existing fire exit situated on the south western corner of the car park which requires separate investigations;
- Loss of three parking spaces to accommodate the new exit ramp;
- Narrow pedestrian footpath adjacent to arterial road traffic;
- Vehicles are forced to exit at an acute angle onto Redmyre Road and across the footpath;
- Left out exit only on to Redmyre Road and northbound traffic may detour via Strathfield Square; and
- Disruption to traffic on Redmyre Road and car park during ramp construction.