

Alternative Options for State Highway 1 Access to Proposed Industrial Site

Option	Description	Features	Benefits	Disadvantages
Options 1 / 2	Mitcham Road / North Park Road / State Highway 1 Interchange	<ul style="list-style-type: none"> Major realignment of Mitcham Road to link directly with North Park Road extension at interchange. Underpass or overpass SH1. On- and off-ramps to provide for north and southbound vehicle access to North Park Road. 	<ul style="list-style-type: none"> Reduces delays to vehicles entering and leaving the development site via North Park Road. Reduces conflicts at the North Park Road / SH1 intersection and reduces the crash rate. Provides the opportunity to include Mitcham Road as another entry point to the development site, by connecting directly to North Park Road. 	<ul style="list-style-type: none"> Significant land purchase requirements west of SH1 to realign Mitcham Road to connect directly with North Park Road. Significant costs required to realign Mitcham Road and to construct the interchange. Potentially significant adverse effects on the environment in terms of visual effects, noise effects and on rural amenity values would need to be mitigated. Significant consultation would need to be undertaken with adjoining landowners, particularly with those directly affected parties whose land would be required. Major nature and future timing of the works would require a new designation to be applied for.
Option 3	North Park Road / State Highway 1 Interchange	<ul style="list-style-type: none"> Underpass or overpass SH1. On- and off-ramps to provide for north and southbound vehicle access to North Park Road. Mitcham Road remains in current location. 	<ul style="list-style-type: none"> Reduces delays to vehicles entering and leaving the development site via North Park Road. Reduces conflicts at the North Park Road / SH1 intersection and reduces the crash rate. Provides the opportunity to include Mitcham Road as another entry point to the development site, by connecting to the onramp. The majority of the works required would be on council-owned land on the western side of SH1. Requirement to purchase limited additional land on the eastern side of SH1. 	<ul style="list-style-type: none"> Significant costs required to construct the interchange. Potentially significant adverse effects on the environment in terms of visual effects, noise effects and on rural amenity values would need to be mitigated. Significant consultation would need to be undertaken with adjoining landowners, particularly with those directly affected parties whose land would be required. Major nature and future timing of the works would require a new designation to be applied for.
Option 3a	North Park Road / State Highway 1 Interchange	<ul style="list-style-type: none"> Underpass or overpass SH1. Possible prohibition of right-turn-out manoeuvre at Works Road. 	<ul style="list-style-type: none"> Attractive for the majority of traffic expected to enter or leave the proposed industrial site (i.e., to / from the south). Very few vehicles turn right out of Works Road at present (less than 10vpd). Initial, informal discussions with PPCS indicate that most of their traffic to and from the north uses Fairfield Road. A right-turn ban at Works Road is unlikely to have significant adverse effects on PPCS. The Company Road / Fairfield Road route is unlikely to be attractive for north-bound traffic from the site. The intersection is therefore likely to attract most traffic generated by the subdivision using SH1. Bulk of construction of the North Park Road intersection is on land owned by ADC. Small impact on privately owned land. Land acquisition costs are minimised. 	<ul style="list-style-type: none"> Not as convenient for subdivision traffic entering / leaving the site to or from the north (i.e., to / from Christchurch). Accesses to properties on North Park Road between the SIMT Railway and SH1 are affected. Access to Mitcham Road is more difficult.
Option 3b	North Park Road / State Highway 1 Interchange	<ul style="list-style-type: none"> Underpass of SH1 SH1 remains on existing grade. 	Same benefits as Option 3, but where North Park Road would pass under SH1 via an underpass, it is considered the underpass would have the following additional benefits:	Same disadvantages as Option 3, but where North Park Road would pass under SH1 via an underpass, it is considered the underpass would have the following additional disadvantages:

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			<ul style="list-style-type: none"> • Good highway sight distances would be maintained. • Traffic noise impacts on the nearest potential sensitive receiving environments (i.e., residential dwellings) would be minimised. • Visual impacts would be minimised. 	<ul style="list-style-type: none"> • Traffic exiting SH1 and approaching the subdivision would be slowing on a downhill gradient. • Traffic exiting the subdivision and approaching SH1 would be accelerating on an uphill gradient.
Option 3c	North Park Road / State Highway 1 Interchange	<ul style="list-style-type: none"> • Overpass of SH1. • SH1 remains on existing grade. 	<p>Same benefits as Option 3 as noted above, but where North Park Road would pass over SH1 via an overpass, it is considered the overpass would have the following additional benefits:</p> <ul style="list-style-type: none"> • Good highway sight distances would be maintained. • Traffic exiting SH1 and approaching the subdivision would be slowing on an uphill gradient. • Traffic exiting the subdivision and approaching SH1 would be accelerating on a downhill gradient. 	<p>Same disadvantages as Option 3 as noted above, but where North Park Road would pass over SH1 via an overpass, it is considered the overpass would have the following additional disadvantages:</p> <ul style="list-style-type: none"> • Potential for traffic noise impacts on the nearest potential sensitive receiving environments (i.e., residential dwellings) to be significant. • Significant visual impacts. A bridge and associated earthworks is considered out of character with the flat nature of the surrounding terrain.
Option 3d	North Park Road / State Highway 1 Interchange	<ul style="list-style-type: none"> • SH1 raised or lowered to pass over or beneath North Park Road extension. 	<p>Same benefits as Option 3 as noted above, but where SH1 would pass over or beneath North Park Road, it is considered there would be the following additional benefits:</p> <ul style="list-style-type: none"> • Access to the proposed industrial development would remain more or less level. 	<p>Same disadvantages as Option 3 as noted above, but where SH1 would pass over or beneath North Park Road, it is considered there would be the following additional disadvantages:</p> <ul style="list-style-type: none"> • SH1 sight distances would be compromised. • There would be a greater impact on the large volume of State highway generated traffic being required to climb and descend gradients.
Option 4	Works Road Right-Turn "Seagull"	<ul style="list-style-type: none"> • "Seagull" design rather than full grade-separated intersection. • North Park Road intersection to be left-turn-out only (towards Ashburton). 	<ul style="list-style-type: none"> • Provides dedicated lanes for left-turn-in and right-turn-in movements from SH1 to Works Road. • Provides dedicated lanes for right-turn-out movements onto SH1 from Works Road. • Reduces delays for vehicles turning right onto SH1 at Works Road. • Land requirements are relatively minor. • Reasonable cost. 	<ul style="list-style-type: none"> • Right-turn "seagulls" are not common in New Zealand, and motorists are unfamiliar with them, resulting in a comparatively high accident rate. • A long acceleration lane is required for heavy vehicles merging into SH1 from the right-turn-out. The length of acceleration lane recommended by Austroads would extend the acceleration lane beyond the Fairton Road right-turn bay. • Existing commercial businesses exist on North Park Road, plus one proposed business. These businesses would have to use alternative routes and local roads to make the right-turn-out movement towards Christchurch.
Option 5	Works Road Grade-Separated Intersection / North Facing Ramps Only	<ul style="list-style-type: none"> • Full grade-separated intersection, but with north-facing ramps only. • Preferably constructed without requiring land to west of SH1. 	<ul style="list-style-type: none"> • Provides dedicated lanes for left-turn and right-turn movements from SH1. • Provides dedicated lanes for right-turn-out movements onto SH1. • Reduces delays for vehicles turning right onto SH1. 	<ul style="list-style-type: none"> • Constructing a grade separated interchange without requiring land to the west of SH1 would require an extensive realignment of SH1. • Not providing south-facing ramps would prevent access to Works Road from the south. • Doesn't address issue of traffic turning right into the development via either North Park Road or Works Road.
Option 5a	Works Road Grade-Separated Intersection	<ul style="list-style-type: none"> • North Park Road intersection would remain open and • Access to site available from North Park 	<ul style="list-style-type: none"> • Works Road interchange more convenient for north-bound vehicles leaving the site. 	<ul style="list-style-type: none"> • The majority of subdivision users will continue to use North Park Road, resulting in congestion and accidents.

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		Road.		<ul style="list-style-type: none"> • There will be some increase in subdivision traffic using Company Road and other local roads. • Significant private land would be required for the Works Road interchange, resulting in significant land acquisition costs.
Option 5b	Works Road Grade-Separated Intersection	<ul style="list-style-type: none"> • North Park Road entry would be closed or • Access to site not available from North Park Road. 	<ul style="list-style-type: none"> • Works Road interchange more convenient for north-bound vehicles leaving the site. • Serves a greater proportion of subdivision traffic than Option 5a. 	<ul style="list-style-type: none"> • Less convenient for the majority of the traffic to the site travelling to and from the south (i.e., to and from Ashburton). • There would be a significant increase in subdivision traffic using Company Road and other local roads. • Significant private land would be required for the Works Road interchange, resulting in significant land acquisition costs.