

APPENDIX J – LAND REQUIREMENT ANALYSIS

APPENDIX J: LAND REQUIREMENT ANALYSIS

This workshop was held to review the construction (temporary) and operation (permanent) land requirements for the corridor and review the necessity and possible alternatives. Each land requirement is reviewed individually.

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5	805 State Highway 16	51m ²	44m ²	95m ²	<p>The proposed works require permanent and temporary land acquisition to facilitate the wider road width area and the reconfigured property access point. A retaining wall will be constructed within the existing designation (no land acquisition to construct this)</p> <p>The earthwork areas will be graded and paved to be consistent with the existing driveway.</p> <p>The service trench requires relocation due to road widening.</p> <p>The carriageway is wider in this area due to the construction of a right turn bay into Joyce Adams Place. The right turn bay has been optimised at 3m width.</p>	Permanent take is required to construct a new stormwater diversion drain with rock lined channel to tie into the culvert extension at the adjacent property at 791.	No land required for utilities. Existing power pole outside property to be removed and replaced with a new service pole.	Due to the site topography and increased road width, a retaining wall (approximately 60m long, 1.5 to 2m high) will be constructed. The earthworks will facilitate the extension of the culvert.	Vegetation removed to facilitate construction of the batter slope, retaining wall and stormwater drain and other works will be reinstated.	Phone correspondence followed by meeting at property. Landowners raised issues regarding the loss of trees and plants, as well as safe access in and out of the property. The driveway will be concreted and widening into the property boundary to enable safe parking while opening the front gates.
6	791 State Highway 16	477m ²	109m ²	586m ²	Permanent land is required for a stormwater culvert extension, pipe, headwall and diversion channel, with an associated construction area and 1:3 batter slope, box culvert and continuous drain. Due to the wider road width area that is required for the right turn bay into Joyce Adams Place,	<p>Temporary land is required to construct the stormwater infrastructure.</p> <p>Stormwater run off from the site and road area will run into a channel along the majority of the front boundary of the property. A box culvert (approximately 1.6m x 1.8m) is provided as</p>	No land required for utilities. Existing power poles outside the property to be removed and replaced by new service pole and service pits.	Earthworks in front of the property primarily required to install services and stormwater infrastructure adjacent to the road corridor. The earthworks will facilitate the extension of the culvert.	The landowner will have a 1:3 earth batter slope along their front boundary which will be grassed. Stormwater infrastructure will be visible, as well as a new underground pipe under the driveway.	Phone correspondence followed by meeting at property. Current business on site which requires frequent truck movements in and out of the property. The current business sign located close to the road frontage will need to be relocated and the existing driveway will be concreted.

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					<p>the existing batter slopes need to be moved, encroaching into 791 SH16.</p> <p>Due to the earthworks area within the road designation area, and AUP requirement to capture water, a continuous drain is required to keep clean water separated from water requiring treatment (e.g. stormwater) and prevents erosion. This will be installed on the outside edge of the earthwork batter.</p>	<p>part of the stormwater management system.</p> <p>The existing culvert is extended to accommodate the additional road width.</p> <p>A diversion channel will carry stormwater from the bottom of the earthworked area before being discharged to the existing culvert.</p>				
7	779 State Highway 16	452m ²	212m ²	664m ²	<p>Permanent land is required to provide new stormwater infrastructure, a new service corridor and to be able to undertake the related earthworks.</p> <p>The changes are required as a result of the wider road width area and the reconfigured access way is necessary to facilitate safe vehicle access points/driveway. Due to the wider road width area, which is exaggerated for the right turn bay into Joyce Adams Place, earthworks are required within the road designation area. The AUP stormwater requirement to capture water, necessitates new stormwater pipes to be installed along the frontage of the property.</p>	<p>Temporary and permanent land is required to construct and accommodate the stormwater infrastructure.</p> <p>Stormwater run off from the site and road area will be channelled and will run along half of the front boundary of the property before being transferred to a pipe along the remainder of the front boundary and beneath the driveway.</p>	<p>Permanent land is required for the undergrounding of the utilities corridor (Vector, Chorus, TFN etc). Existing power poles outside the property to be removed, new service pits and pillars will be installed to provide underground connection to the property. There is no alternative location given the widened road and the requirement to provide for these essential network utilities.</p>	<p>Earthworks in front of the property primarily required to install services and stormwater infrastructure adjacent to the road corridor.</p>	<p>The landowner will have an 1:3 earth batter slope along their front boundary which will be grassed. Stormwater infrastructure will not be visible except for a small section where there is an open channel. The existing driveway will be re-graded to tie-in with the new road alignment. Removal of some vegetation will be required and new fence will be installed.</p>	<p>Phone correspondence followed by meeting with landowner's son at his workplace. Supportive of the project and are happy to agree with any land that is required.</p>

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					<p>Alternatives to the stormwater pipe included swales however this option would have required additional land and therefore was disregarded. Swale construction would have also required a longer construction time and related disruption to the landowner. Alternatives to realign road width changes to adjacent side of the road were disregarded due to the existing rail infrastructure.</p>					
8	771 State Highway 16	600m ²	172m ²	772m ²	<p>Both temporary and permanent land acquisition is required. The works involve a stormwater swale, a small stormwater piped area, utilities services corridor and earthworks. This is due to the wider road width area, and to manage stormwater in accordance with the AUP.</p> <p>Stormwater run off from the site and road area will be channelled into a swale located on the property boundary which will connect to a culverted area which runs below the driveway and west. The existing batter slopes will be cut into to facilitate the wider road area, and to create the swale gradients.</p> <p>Alternatives to the stormwater swale were</p>	<p>Temporary land is required to construct the stormwater infrastructure.</p> <p>Stormwater run off from the site and road area will be a channel which will run along the front boundary of the property before being transferred to a pipe beneath the driveway.</p>	<p>Land is required to install underground utilities. Existing power poles outside the property to be removed and replaced by new service pole and service pits.</p>	<p>Earthworks in front of the property primarily required to install services and stormwater adjacent to the road corridor.</p>	<p>The landowner will have a 1:3 earth batter slope along their front boundary which will be grassed. Stormwater infrastructure (swale) will be visible. The driveway will be regraded. Some existing trees along the front boundary will need to be removed.</p>	<p>Phone correspondence followed by meeting at property. Supportive of the project, with key concerns of having the stock secure during construction and maintaining access for their vehicles.</p>

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					disregarded as they would have required additional land and would not have provided the same degree of stormwater management.					
9	763 State Highway 16	-	82m ²	82m ²	Temporary land acquisition is required to facilitate construction of the stormwater swale.	Temporary land is required to construct the stormwater infrastructure.	No land is required for utilities. Existing power poles outside the property to be removed and replaced by new service pole and service pits	Earthworks in front of the property primarily required to install stormwater infrastructure adjacent to the road corridor.	The land acquisition is temporary only and will be used to enable construction of the swale located outside of the property boundary. The existing hedge at the property boundary will be removed and a 1.8m fence will be constructed.	Phone correspondence followed by meeting at landowner's workplace. Has 5 cars in and out of property, plus boat and trailer 6.1 metres. Is ok with tress and foliage being removed from front of property and has no issues with a temporary occupation
11	757 State Highway 16	109m ²	104m ²	213m ²	<p>The permanent land acquisition is required to accommodate a stormwater swale and culvert. The temporary earthworks area is required to construct the stormwater infrastructure.</p> <p>The changes are also required as a result of the requirement to manage stormwater in accordance with the AUP. Stormwater run off from the site and road area will be channelled into a swale located on the property boundary. The existing batter slopes will be cut into to facilitate the wider road area, and to create the swale gradients.</p> <p>Alternatives to the stormwater swale were disregarded as they would have required</p>	<p>Temporary land is required to construct the stormwater infrastructure.</p> <p>Stormwater run off from the site and road area will be channelled into a culvert and swale which will run along the front boundary of the property before being transferred to a pipe beneath the driveway. A new scruffy dome will also be installed.</p> <p>A diversion channel will carry stormwater from the edge of the earthworked area, beneath the driveway, before being discharged to a below ground pipe at the western end of the property.</p> <p>The existing culvert will be extended in relation to the increased width of the road.</p>	No land is required for utilities. Existing power poles outside the property to be removed and replaced by new service pole and service pits.	Earthworks in front of the property primarily required to install stormwater infrastructure adjacent to the road corridor.	The landowner will have a 1:3 earth batter slope along their front boundary which will be grassed. Stormwater infrastructure (swale and scruffy dome) will be visible.	Phone correspondence followed by meeting at property. Supportive of the project, only concern is for horses on the property. Will require a horse proof fence, which can also minimise construction noise effects to prevent horses from getting spooked.

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					additional land and would not have provided the same degree of stormwater management.					
18	23 Foster Road	1792m ²	111m ²	1903m ²	<p>The permanent land acquisition is required to provide a vehicle turnaround bay, associated road signs, street lighting, a stormwater pipe network, an open rock lined channel and earthworks to construct these. Access will be provided from this area to a road maintenance bay off the vehicle turnaround.</p> <p>The vehicle turnaround is required as a result of the installation of median barriers which prevents vehicles from being able to turn right while travelling along the corridor. The stormwater pipe will be below ground and will manage stormwater run off from the paved turnaround area. The associated road maintenance bay is proposed here as it facilitates a safe off-road location, in the middle of the corridor, from which maintenance vehicles can park safely on the side road.</p> <p>Alternatives to the siting of the turn around (Wintour Rd and Station Rd) were disregarded as this is the most appropriate location given</p>	<p>Permanent land is required to construct the stormwater infrastructure.</p> <p>A below ground pipe will be installed within the footprint of the proposed vehicle turnaround to manage stormwater run off from the paved vehicle turn around.</p> <p>The stormwater pipe and open channel proposed is considered to be the most appropriate management method in this location, particularly given the topography and number of vehicle movements anticipated over the turn around area.</p>	Land is required for street lights at the turnaround area.	<p>Earthworks in front of the property primarily required to install services and stormwater infrastructure adjacent to the road corridor and construct the vehicle turnaround and access to the maintenance bay.</p> <p>Temporary land is required for construction of the new batter.</p>	<p>The land is currently occupied by trees and grass. The landowner will have a vehicle turnaround in their front boundary. Tree removal is required on the property boundary. Surrounding areas will be grassed. Stormwater pipe will not be visible, but the channel will be visible. Mitigation will be offered by fencing and re-vegetation.</p>	Phone correspondence followed by several meetings with landowner. Discussed concerns about horses grazing on the property and privacy issues with removing trees and bringing the corridor closer to their property. Wanting to see a larger section of the property bought - due to balance remaining unusable and impacting opportunities for subdivision. Generally, not supportive.

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					proximity to other turnaround bays, and because land is constrained on the adjacent side of the road by the rail infrastructure and the need for a safe right turn bay. Moving the vehicle turn around to the adjacent property on Foster Road was disregarded for safety reasons associated with additional vehicle movements.					
19	631 State Highway 16	316m ²	30m ²	346m ²	Permanent land is required to install transformer and switch and a batter along the front boundary of the property. Temporary land is required for the driveway reconstruction. Stromwater infrastructure will be installed along the front of the boundary within the existing road designations	No land is required to install stormwater infrastructure.	Permanent land is required to install the new Vector transformer and switch. The existing power pole outside the property will be removed and replaced by a new service pole.	Earthworks are required to construct the batter and install the utilities.	Landowners will have a batter slope outside their property. They will also have a transformer, switch and service pole that will be visible. Some tree removal is required.	Phone correspondence followed by meeting at property. Property is tenanted. Supportive of the project, with key concerns possible earth movement at the front of the property as have noted cracks have appeared inside the house recently.
20	623 State Highway 16	-	32m ²	32m ²	Temporary land is required for batter slope and driveway reconstruction. An easement is in place to extend the culvert, construct the road batter and new headwalls (89m ²).	A stormwater swale and pipe network will be constructed outside the property boundary.	No land is required for utilities. The exiting power pole outside the property will be removed. New service pits will be installed to provide underground connection.	Temporary land is required to construct the batter and to reinstate the driveway.	Landowners have a batter slope outside their boundary and an open swale. Removal of one tree is required.	Phone correspondence followed by several meetings with landowner. Supportive of project with key concerns to retain trees at front right hand corner of property with no batter into property at hat end. Ok with batter into property at front left corner. Needing to ensure access to paddock at all times during construction
21	619 State Highway 16	-	15m ²	15m ²	Temporary land is required for the construction of the batter slope along the	Temporary land is required to construct the batter for	No land is required for utilities. Existing power pole outside the property will be removed. New service pits will be	Temporary land will be required for construction of the batter and to reinstate the driveway.	Landowners will have a new driveway, concrete retaining wall and batter.	Phone correspondence followed by several meetings with landowner. Key concerns are accessing property with

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					front of the property boundary. Existing driveway will be reconstructed and widened, existing concrete retaining wall next the driveway will be demolished and reconstructed to accommodate the widened driveway. This is required to provide safer access to the property due to the installation of the median barriers.	stormwater outside the property boundary.	installed to provide underground connection.		Some tree removal is required.	car and boat trailer. Wanting a retaining wall at front of property due to soil slippage. Happy with proposal to underground power. Not happy with project in general and specifically with median barriers
22	609 State Highway 16	-	114m ²	114m ²	No permanent land acquisition is required. Temporary land is required to reconstruct the driveway and construct the retaining wall.	No temporary or permanent land acquisition is required for stormwater infrastructure.	No land is required for utilities. Existing power pole outside the property will be removed. New service pits will be installed to provide underground connection.	Temporary land is required to reconstruct the driveway and construct the retaining wall.	Landowners will have a retaining wall outside the front of their boundary. No stormwater infrastructure is proposed.	Met with landowners lawyer to discuss land required. Key concern is with how the works will disrupt the tenant and the tenant's business.
23	601 State Highway 16	725m ²	354m ²	1079m ²	The permanent land acquisition area is required to provide a vehicle turnaround area, associated signage, and a stormwater pipe. A retaining wall will be constructed within the permanent land area. It is also required for a new transformer, switch, underground 11kv joint, service duct and street light pole. The temporary required area is for the corresponding earthworks and construction area. The turnaround is required as a result of the installation of median barriers which prevents vehicles from being able to turn right	Permanent land acquisition is required for stormwater infrastructure. An underground pipe will be installed in front of this site to carry stormwater run off from adjacent site to discharge it to the culvert at the eastern end of the property. The stormwater pipe proposed is considered to be the most appropriate management method in this location, given the number of vehicle movements anticipated over the turn around area and stormwater from adjacent sites.	Permanent land is required for a new transformer, switch and street light pole. Existing power poles outside the property to be removed and replaced by new service pits.	Permanent land is required to construct the stormwater infrastructure and utilities. Temporary land is required to construct the batter slope, direct buried 11kv joint and service duct. Due to the site topography and increased road width, a retaining wall (approximately 125m long, 4m high) will be constructed. This retaining is across the frontage of both this site, and the adjoining at 587 SH16.	Coopers Creek Vineyard - The land is currently occupied by vineyards and a driveway. There are existing vegetation/trees on the front boundary. The landowner will have a vehicle turnaround in their front boundary. Surrounding areas will be grassed. Stormwater infrastructure (pipe) will not be visible but channel, transformer and switch will be visible. Mitigation will be offered by re-vegetation and new fencing. There will also be a new barrier terminal at the turnaround facility.	Phone correspondence followed by two meetings to discuss concerns with the access and practicalities of the works and how this will affect the commercial tenant on site. Concern about how this could affect potential for sub-division and lease renewal.

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					<p>to travel along the corridor. The stormwater pipe will be below ground and will manage stormwater run off from the paved turnaround area.</p> <p>Alternatives to the siting of the turnaround were disregarded as this is the most appropriate location given proximity to other turnaround bays, and due to the existing rail infrastructure on the northern side of SH16 and good visibility required.</p>	<p>A diversion channel will carry stormwater from the edge of the earthworked area before being discharged to the below ground pipe.</p>				
24	587 State Highway 16	234m ²	167m ²	401m ²	<p>The permanent land acquisition is required for a retaining wall, stormwater infrastructure and associated earthworks. The changes are required as a result of the wider road width area. A retaining wall will be constructed within the permanent land area.</p> <p>Due to the topography of the subject site, and increased road width, a retaining wall with a maximum height of 4.3m will be constructed along the front boundary of the site. Sufficient space for mowing behind the wall is necessary.</p> <p>The wall location provides sufficient area for vehicle deflection. The horizontal alignment has been tightened in this area</p>	<p>Permanent land is required to install stormwater pipe, scruffy dome and channel above the retaining wall. Temporary land is required to facilitate construction.</p> <p>A below ground pipe will be installed in front of this site to carry stormwater run off beneath the driveway.</p>	<p>Permanent land acquisition is required for a new service trench.</p> <p>Existing power pole outside the property will be removed. New service pits will be installed to provide underground connection.</p>	<p>Due to the site topography and increased road width, a retaining wall, 125m long and up to 4m high, will be constructed. This retaining wall is across the frontage of both this site, and the adjoining at 601 SH16. Earthworks are also required to reinstate the driveway.</p>	<p>The land is currently occupied by a vegetated area and a driveway. There is an existing small old rock retaining wall on the boundary. The landowner will have a timber retaining wall along their front boundary and will have their driveway reinstated. A handrail and landscaping will be installed on the top of the retaining wall. Construction areas will be grassed. Mitigation will be offered by re-vegetation along the front boundary.</p>	<p>Phone correspondence followed by meeting at property. Landowner is supportive of the project and the proposed vegetation removal along the front boundary. Main concern is accessibility of the ute and boat on trailer in and out of the property. Will require the fencing to be replaced once the retaining walls are built.</p>

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					<p>in order to achieve no land take from KiwiRail, this results in the alignment being pulled to the south between 587 - 609 SH16. The alignment/road width in this area is also related to the location of the Coopers Creek turnaround.</p> <p>Alternatives to realign road width changes to the adjacent side of the road were disregarded due to the existing rail infrastructure on the northern side of SH16. Alternatives to the retaining wall (e.g. batter slope) were disregarded as they would have required additional land and would have adverse visual effects. Existing power poles and power lines will be relocated to follow the new road kerb.</p>					
25	583 State Highway 16	222m ²	40m ²	262m ²	<p>The permanent land acquisition is primarily required to provide for the increased road width area, and to accommodate the improved stormwater infrastructure (pipes) discharging to Cooper Creek stream, which is on the western boundary of the property. The stormwater pipe will be below ground and will discharge to the stream on the site.</p> <p>The bridge (Kumeu No. 2) widening works will utilise this property. Due to the location of</p>	<p>Temporary and permanent land is required to construct and accommodate the stormwater infrastructure.</p> <p>A diversion channel will carry stormwater from the top of the earth batters through a rip rap area before being discharged to Cooper Creek stream.</p>	<p>No land is required for utilities. Existing power pole outside the property will be removed. New service pits will be installed to provide underground connection.</p>	<p>Earthworks in front of the property primarily required to reinstate the driveway, construct the bridge abutment, install services and stormwater infrastructure adjacent to the road corridor.</p>	<p>The land is currently occupied by a fence and grass. Mitigation will be offered by replacement fence and re-grassing. A new concrete vehicle entry will be provided to tie into the existing driveway.</p> <p>Riparian planting will be undertaken in proximity of the watercourse.</p>	<p>Phone correspondence followed by meeting at property. Landowners run two businesses from the property including a business for recreational equipment and a number of groves for a winery. Recently had their driveway upgraded to cater for large truck and trailer units needed for the business and ensure safe access. Driveway is quite steep, need to consider how far into the property the works will take place on. Concerned about possible weekend construction as events are held on site and need to ensure access and</p>

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					<p>the bridge in close proximity to this site, the utility services will be aligned across this property with the connections to the bridge to be able to cross it.</p> <p>The temporary area of works are required for earthworks to construct the widened road area, widened bridge and stormwater infrastructure.</p> <p>Alternatives to realign road width changes to the adjacent side of the road were disregarded due to the existing rail infrastructure on the northern side of SH16.</p>					visibility close to the road for photograph opportunities.
26	573 State Highway 16	457m ²	59m ²	516m ²	<p>The permanent land acquisition is primarily required to provide for the increased road width area and to accommodate the stormwater infrastructure. The swale on the adjacent property will be piped below the driveway and discharged to Cooper Creek stream (located on the western boundary of this property). The stormwater pipe will be below ground and will discharge to the stream on the site.</p> <p>The temporary area of works will be used for earthworks to construct the road area, barriers and stormwater infrastructure. The bridge (Kumeu No. 2)</p>	<p>The state highway and this property is within a SMAF area. Temporary land area is required to construct stormwater infrastructure.</p> <p>An underground stormwater pipe will be installed below the driveway and across the front of the property.</p> <p>A diversion channel will carry stormwater from the bottom of the earth batters through a rip rap area before being discharged to Cooper Creek stream.</p> <p>A retention swale was disregarded on this site because of impracticalities crossing the driveway. Alternatively, if a wetland 'pond' was proposed, it would require more land. Due</p>	<p>No land is required for utilities. Existing power pole outside the property will be removed. New service pits will be installed to provide underground connection.</p>	<p>Earthworks in front of the property primarily required to reinstate the driveway construct the bridge abutment, install services and stormwater infrastructure adjacent to the road corridor.</p>	<p>The land is currently occupied by a fence and vegetation. Mitigation will be offered by replacement fence and vegetation. A new chip seal vehicle entry will be constructed to tie into the existing driveway.</p> <p>Riparian planting will be undertaken in proximity of the watercourse.</p>	<p>Phone correspondence followed by meetings at property. Key concern is for their daughters safety and access during construction. The temporary land take is currently outside the fenced paddock which is used for grazing.</p>

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					<p>widening works will utilise this property.</p> <p>Alternatives to realign road width changes to the adjacent side of the road were disregarded due to the existing rail infrastructure on the northern side of SH16. The stormwater pipe proposed is considered to be the most appropriate management method in this location, particularly given the topography - the alternative (a wetland) would require more land. Furthermore, the catchment size is not big enough to service a wetland.</p>	<p>to the catchment size and nature, there is not enough storage volume to consider piping as an option and retention would not be provided to the degree required.</p> <p>If physical storage or an underground concrete chamber was alternatively provided, this would be unable to provide the SMAF required treatment and would require additional land.</p>				
27	551 State Highway 16	1071m ²	393m ²	1464m ²	<p>The permanent land acquisition is primarily required to install at and below ground level stormwater infrastructure, including pipes and a bio-retention swale.</p> <p>The temporary area required for earthworks will facilitate the construction of the stormwater infrastructure and relocation of overhead, to below ground, powerlines.</p> <p>The changes are primarily required to construct the wider road width area and accommodate the required stormwater infrastructure.</p> <p>Due to the location of the bridge (Kumeu No.</p>	<p>The state highway and this property are within a SMAF area. Temporary land area is required to construct stormwater infrastructure.</p> <p>A retention swale and below ground pipe will be installed along the front boundary of this site. The retention swale satisfies SMAF requirements as it provides retention and detention.</p> <p>If a typical swale was proposed as an alternative, the land requirement would be the same (due to the batter slope), however it would not meet the SMAF requirements because there would no capability for detention and retention.</p>	<p>Permanent land is taken for a new service pole. Existing power pole outside the property will be removed and replaced with a new service pole.</p>	<p>Earthworks in front of the property primarily required to reinstate the driveway, install services and construct a retaining wall adjacent to the road corridor.</p>	<p>The land is currently occupied by vegetation - mature shelterbelt of trees. The swale will be planted. Mitigation will be offered by replacement vegetation on the temporary works area.</p> <p>The shelter has been recently removed by the property owner as these trees were interfering with the overhead Vector powerlines.</p>	<p>Written correspondence followed by meeting at property. Property is tenanted with a residential home and a diesel mechanic business which require access for truck and trailer units. Landowner has plans to renovate and open a future commercial business in the front building and would like to put in parking bays outside and ensure safe access for cars. Concern is therefore related to property access and parking on site.</p>

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					<p>2) in close proximity to this site, the utility services will be aligned across the property with the bridge to cross it. The stormwater pipe will be below ground. Related earthworks are required.</p> <p>Alternatives to realign road width changes to the adjacent side of the road were disregarded due to the existing rail infrastructure on the northern side of SH16. The stormwater pipe proposed is considered to be the most appropriate management method in this location, particularly given the topography.</p>					
29	529 State Highway 16	381 m ²	92m ²	473m ²	<p>The permanent land required is to construct the wider road width area, install the safety treatments (e.g. increased road shoulders, barriers etc), stormwater infrastructure, new street light pole, service trench and to accommodate the vehicle turnaround.</p> <p>The temporary area of works within this property involve earthworks during construction which will facilitate the construction of services adjacent to the widened road corridor.</p> <p>The vehicle turnaround is required as a result of the installation of median barriers which</p>	<p>The state highway and this property are within a Stormwater Management Areas: Flow 1 area (SMAF). Temporary and permanent land is required to construct and accommodate the stormwater infrastructure.</p> <p>A below ground pipe will be installed in front of this site to manage stormwater run off from the paved vehicle turn around and road carriageway.</p> <p>An existing headwall will be relocated within the property to accommodate the additional area of the vehicle turnaround and road width.</p>	<p>Permanent land is required for new service trench. New service pole is located within the existing road designation, and therefore does not require land acquisition. In order to maintain electricity supply to this property and facilitate the road widening, there is no alternative to the siting of these poles.</p>	<p>Earthworks in front of the property primarily required to install the turnaround facility adjacent to the road corridor.</p>	<p>The land acquisition is both temporary and permanent. The temporary earthwork areas will be graded and paved to be consistent with the existing driveway, which will be slightly realigned.</p> <p>Existing low level vegetation outside of the front boundary (in the road reserve area) will be removed. This area will be re-landscaped once the works are completed.</p> <p>Consultation with the adjacent landowner of No. 407 (NZTA granted permission for the additional driveway on their subdivision) and the safety audit (which raised concerns about the proximity of the vehicle turn around to the Trigg</p>	<p>Phone correspondence followed by meeting at property with lawyers. Estate is on hold and pending a Court trial due to family member dispute over inheritance. House on site is currently tenanted, which has a loose gravel driveway. Land at the front of the property is not being used. Consolation is ongoing.</p>

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					<p>prevents vehicles from being able to turn right from and into properties to travel along the corridor.</p> <p>Alternatives to realign road width changes to the adjacent side of the road were disregarded due to the existing rail infrastructure on the northern side of SH16. The other alternative considered was to locate the vehicle turn around within the adjacent property at 407; this was disregarded due to the proximity of this dwelling to the turnaround and Trigg Road intersection. The current proposal was selected as there is more space available on the property at 529, well set back from the existing dwelling. The proposed works had considered using Station Road as a new intersection; this option was disregarded due to safety concerns raised from Auckland Transport and the designers, Aecom.</p>	A diversion channel will be installed around the outside edge of the earth batter slope which surrounds the vehicle turnaround.			Rd intersection) resulted in the relocation of the turnaround facility further west.	