

APPENDIX D

Matter of discretion	Potential adverse Environmental Effect

<p><i>15.14.1 Urban design</i></p> <p><i>The extent to which the development:</i></p> <ul style="list-style-type: none"> <i>i. Recognises and reinforces the centre’s role, context, and character, including any natural, heritage or cultural assets;</i> <i>ii. Promotes active engagement with, and contributes to the vibrancy and attractiveness of, any adjacent streets, lanes or public spaces;</i> <i>iii. Takes account of nearby buildings in respect of the exterior design, architectural form, scale and detailing of the building;</i> <i>iv. Provides a human scale and minimises building bulk while having regard to the functional requirements of the activity;</i> <i>v. Is designed to incorporate Crime Prevention Through Environmental Design (CPTED) principles, including encouraging surveillance, effective lighting, management of public areas and boundary demarcation;</i> <i>vi. Incorporates landscaping or other means to provide for increased amenity, shade, and weather protection;</i> <i>vii. Provides safe, legible, and efficient access for all transport users;</i> <i>viii. Where relevant, has regard to the actions of the Suburban Centre Master Plan to support their recovery, long term growth and a high level of amenity.</i> <i>ix. Where within a Site of Ngāi Tahu Cultural Significance identified in Appendix 9.5.6, the matters set out in Rule 9.5.5 as relevant to the site classification:</i> <ul style="list-style-type: none"> <i>A. Rule 9.5.5.1 – Wāhi Tapu / Wāhi Taonga, Mahaanui Iwi Management Plan Silent Files and Kaitōrete Spit;</i> <i>B. Rule 9.5.5.2 – Ngā Tūranga Tūpuna; and</i> <i>C. Rule 9.5.5.3 – Ngā Wai.</i> 	<p>Development does not recognise the centre’s role, context, and character including any natural heritage or cultural assets.</p> <p>Undermines engagement with adjacent streets, lanes or public spaces.</p> <p>Undermines the vibrancy and attractiveness of adjacent streets, lanes or public spaces.</p> <p>Insufficient recognition of nearby buildings in respect of their exterior design, architectural form, scale and detailing in subject building design.</p> <p>Proposed buildings do not have a human scale or bulk appropriate to its context having regard to the functional requirements of the activity for which the building is designed.</p> <p>The overall design is not safe in terms of creating opportunities for criminal activity.</p> <p>Insufficient landscaping or ‘other means’ are provided for shade or weather protection.</p> <p>In sufficient provision has been made for legible and efficient access for all transport users.</p> <p><u>Note:</u></p> <p>There is no suburban master plan for this commercial development area.</p> <p>The site is not within or contain a site of Ngāi Tahu Cultural Significance</p>
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<p><i>15.14.2.1 Maximum tenancy size</i></p> <p>a. <i>The extent to which the scale of the activity:</i></p> <ul style="list-style-type: none"> <i>i. affects recovery of the City Centre and its function as the principal Centre;</i> <i>ii. supports the intended role of the Centre having regard to the Centres Hierarchy (Refer to 15.2.2.1 Policy – Role of centres);</i> 	<p>In regard to a.i. the proposed oversized tenancy affects the recovery of the City Centre from the earthquake sequence of 2010 and 2011 by providing goods or services at a size that would be better located in the Central City so as to attract consumers to the Central City.</p> <p>In regard to a.ii. refer to Note A under this table.</p>
<p><i>15.14.2.4 Centre vitality</i></p> <p>a. <i>The extent to which the scale, character, form and location of the activity:</i></p> <ul style="list-style-type: none"> <i>i. Contributes to the vitality of the centre, particularly along key pedestrian frontages;</i> <i>ii. Supports the intended role of the centre the development is proposed in, while not eroding the role of the City Centre and Town Centres in the centres hierarchy (Refer to 15.2.2.1 Policy – Role of centres);</i> <i>iii. Impacts upon the diversity of activities within the centre;</i> <i>iv. Promotes the efficient use of land within the centre to achieve a compact urban form;</i> <i>v. Reflects the functional requirements of the activity.</i> 	<p>The activity detracts from the vitality of the centre it is located in.</p> <p>The activity undermines the intended role of the centre and erodes the centre’s position in the hierarchy.</p> <p>In sufficient capacity left in the centre to meet the needs of the surrounding projected population growth.</p> <p>The activity prevents a diversity of ‘offer’ of goods and services in the centre.</p> <p>The proposal does not efficiently achieve a compact urban form.</p>

<p><i>15.14.3.6 Landscaping and trees</i></p> <p><i>b. The extent to which the proposed landscaping and tree planting:</i></p> <p><i>i. achieves a high level of on-site amenity while minimising the visual effects of activities and buildings on the surroundings;</i></p> <p><i>ii. supports the growth of vegetation and its protection through the provision of space, or other methods e.g. barriers;</i></p> <p><i>iii. continues to recognise Ngāi Tahu/manā whenua values through the use of indigenous species in riparian areas, where appropriate, that supports the establishment of ecological corridors;</i></p> <p><i>c. The extent to which the non-compliance is mitigated through the design, scale and type of landscaping proposed including the species used;</i></p> <p><i>d. The appropriateness and design of landscaping having regard to the potential adverse effects on safety for pedestrians and vehicles.</i></p>	<p>The proposed landscaping and tree planting detracts from a high level of on-site amenity.</p> <p>The proposed landscaping and tree planting location and method does not support the growth of vegetation.</p> <p>Proposed mitigation does not sufficiently negate the adverse effects of the shortfall in tree planting.</p> <p>Proposed landscaping creates adverse effects in relation to safety for pedestrians and vehicles.</p> <p>Note: There are no riparian areas on this site.</p>
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<p>6.8.5.1 All signs and ancillary support structures</p> <p>a. Whether the scale, design, colour, location and nature of the signage will have impacts on the architectural integrity, amenity values, character, visual coherence, and heritage values of:</p> <ol style="list-style-type: none"> i. the building and the veranda on which the signage is displayed and its ability to accommodate the signage; ii. the surrounding area (including anticipated changes in the area); iii. residential activities; and iv. heritage items or heritage settings, open spaces, protected trees or areas possessing significant natural values. <p>b. Whether the extent of the impacts of the signage are increased or lessened due to:</p> <ol style="list-style-type: none"> i. the design, dimensions, nature and colour of the sign or support structure; ii. the level of visibility of the sign; iii. vegetation or other mitigating features; and/or iv. the length of time that temporary election or referendum signage is proposed to be displayed. <p>c. Whether the signage combines with existing signage on the building, the site or in the vicinity, to create visual clutter or set a precedent for further similar signage.</p> <p>d. Whether there are any special circumstances or functional needs relating to the activity, building, site or surroundings, which affect signage requirements, including:</p> <ol style="list-style-type: none"> i. operational, safety, directional, and functional requirements; ii. its size, scale or nature; and iii. the length of the road frontage. <p>e. Whether the signage:</p> <ol style="list-style-type: none"> i. enlivens a space or screens unsightly activities; ii. will result in an orderly and co-ordinated display; and iii. relates to the business or activity on the site and the necessity for the business or activity to identify and promote itself. <p>f. For small-scale, grouped poster signage, the nature and extent of any management and maintenance regime in place including keeping the posters current, and the posters and sites on which they are installed clean and free of graffiti.</p> <p>g. The potential of the signage to cause distraction or confusion to motorists and/or adversely affect traffic safety due to its location, visibility, and/or content, including size of lettering, symbols or other graphics.</p>	<p>The signs adversely affect:</p> <ul style="list-style-type: none"> • Architectural integrity of buildings they are displayed on; • Amenity values of buildings they are displayed on; • The surrounding area including anticipated changes in the area; • Residential activities; and • Open spaces <p>Adverse effects created by the sign or support structures:</p> <ul style="list-style-type: none"> • design; • nature; • colour; • visibility; <p>Proposed mitigation does not sufficiently negate the adverse effects of the sign or support structure.</p> <p>Cumulative adverse ‘clutter’ effects of the proposed non complying signs when combined with the adverse effects of existing signage:</p> <ul style="list-style-type: none"> • On the proposed building; • In the vicinity <p>Cumulative adverse precedent</p> <p>The signage is unorderedly or uncoordinated</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. The signs are not: <ul style="list-style-type: none"> • on heritage items; • within a heritage area; • within the Akaroa Heritage Town Ship Area; • On or near protected trees; • On or near areas possessing significant natural values as recognised in the District Plan 2. The signs are not small scale grouped poster signage 3. The signs are not temporary election or referendum signs. 4. There are no significant trees adversely affected by the proposal.
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<p>h. Where the site is within the Akaroa Township Heritage Area, the matters set out in <u>Rule 9.3.6.3</u>.</p> <p>i. For temporary election or referendum signage that does not comply with <u>Rule 6.8.4.2.7 (g)</u> the following matters of discretion also apply:</p> <p>i. Significant Trees Rule 9.4.6 (a)-(g)</p> <p><u>j. Where the sign is located on or in a heritage item or in a heritage setting or heritage area, excluding Akaroa Township Heritage Area, the relevant matters set out in Rule 9.3.6.1n also apply.</u></p>	
<p>6.8.5.2 Illuminated, moving, changing, flashing or retro-reflective displays</p> <p>a. Whether the extent of the impacts of the signage are increased or lessened due to:</p> <ol style="list-style-type: none"> i. the frequency and intensity of intermittent or flashing light sources, and the proposed periods of illumination and frequency of image changes; ii. the prominence of the sign due to its illuminated or animated nature and ability to draw the eye; iii. the nature of surrounding land use activities; and iv. the proximity of the display to other properties and the likely effects of such intermittent or flashing lights or changing images upon those properties and their occupants. <p>b. Where the site is within the Akaroa Heritage Area, the matters set out in <u>Rule 9.3.6.3</u>.</p>	<p>Taking into account the surrounding land uses and their proximity:</p> <p>A. the proposed periods of illumination and frequency of image changes have adverse effects on:</p> <ul style="list-style-type: none"> • Distraction; • Visual amenity; • Sleep disturbance; <p>B. The prominence of the sign causes Adverse effects on relating to</p> <ul style="list-style-type: none"> • Distraction; • Visual amenity; • Sleep disturbance; <p>Note: the signs are not in the Akaroa Heritage Area.</p>
<p>6.8.5.3 Static and digital billboards</p> <p>a. Whether the scale, design, colour, location and nature of the billboard will have impacts on the architectural integrity, amenity values, character, visual coherence, and heritage values of:</p> <ol style="list-style-type: none"> i. the building and the veranda on which the billboard is displayed and its ability to accommodate the signage; ii. the surrounding area (including anticipated changes in the area); iii. residential activities; and iv. heritage items or heritage settings, open spaces, protected trees or areas possessing significant natural values. <p>b. Whether the extent of the impacts of the billboard are increased or lessened due to:</p> <ol style="list-style-type: none"> i. the design, dimensions, nature and colour of the sign or support structure; 	<p>Note: These matters of discretion relate to billboards.</p> <p>The definition in the District Plan of a billboard is:</p> <p>Billboard <i>means an outdoor display board of not less than 18m² in area which is used to advertise goods, services, products or events that are not directly related to the use or activities occurring at the site on which the board is physically located. It includes both the display board and any associated supporting device whether permanent, temporary or moveable.</i></p> <p>The digital sign is not advertising goods and services not offered in the proposed Mitre 10 and therefore is not a billboard.</p>

<ul style="list-style-type: none"> ii. the level of visibility of the billboard; and iii. vegetation or other mitigating features. c. Whether the billboard combines with existing signage on the building, the site or in the vicinity, to create visual clutter or set a precedent for further similar signage. d. Whether the billboard: <ul style="list-style-type: none"> i. enlivens a space or screens unsightly activities; and ii. will result in an orderly and coordinated display. e. Whether the extent of the impacts of the billboard are increased or lessened due to: <ul style="list-style-type: none"> i. the frequency and intensity of intermittent or flashing light sources, and the proposed periods of illumination and frequency of image changes; ii. the prominence of the billboard due to its illuminated or animated nature and ability to draw the eye; iii. the nature of surrounding land use activities; iv. the proximity of the display to other properties and the likely effects of such intermittent or flashing lights or changing images upon those properties and their occupants; and v. The potential of the billboard to cause distraction or confusion to motorists in their observance of traffic conditions, directions or controls. 	
<p>7.4.4.9 Vehicle access design</p> <ul style="list-style-type: none"> a. The following are matters of discretion for Rule <u>7.4.3.7</u> a.: <ul style="list-style-type: none"> i. Whether the driveway serves more than one site and the extent to which other users of the driveway may be adversely affected. ii. Whether there are any adverse effects on the safety and amenity values of neighbouring properties and/or the function of the transport network. iii. The effects on the safety and security of people using the facility. iv. Whether the access disrupts, or results in conflicts with, active frontages, convenient and safe pedestrian circulation and cycling flows or will inhibit access for emergency service vehicles where on-site access is required. 	<p>The access has adverse effects on the safety and amenity values of neighbouring properties.</p> <p>The access has adverse effects on the function of the transport network.</p> <p>The access has adverse effects on the safety and security of people using the access.</p> <p>The access has adverse effects on active frontages.</p> <p>The access has adverse effects on the safety of pedestrians, particularly the elderly and mobility restricted.</p> <p>Note:</p>

<ul style="list-style-type: none"> v. Whether the safety of pedestrians, particularly the aged and people whose mobility is restricted, will be compromised by the length of time needed to cross a wider driveway. vi. Whether the legal width of access is restricted by the boundaries of an existing site and/or an existing building. vii. Where the access exceeds the maximum gradient standards, in addition to i. to vi. above: <ul style="list-style-type: none"> A. whether the gradient will make the use of the access impracticable, including inhibiting access for emergency service vehicles where on-site access is required. B. whether the drainage facilities are adequately designed and will not cause adverse effects on neighbouring sites. viii. For 1027 Colombo Street (Lot 1 DP 17924), whether there are any adverse effects of vehicle access design and access points on the safe and efficient operation of the transport network, including the Major Cycle Route network. 	<p>The site is not 1027 Colombo Street The driveways do not serve more than one site. The access does not exceed maximum gradients.</p>
<p>7.4.4.14 Maximum number of vehicle crossings</p> <ul style="list-style-type: none"> a. The following are matters of discretion for Rule 7.4.3.8 e.: <ul style="list-style-type: none"> i. Whether the extra crossing(s) will adversely affect the efficient and safe operation of the road for all road users. ii. Any cumulative effects of the introduction of extra vehicle crossings when considered in the context of existing and future vehicle crossings serving other activities in the vicinity. iii. Whether the physical form of the road will minimise the adverse effects of the extra vehicle crossings for example the presence of a solid median to stop right hand turns. iv. Outside the Central City, whether the landscaping adjacent to the road will be adversely affected by the vehicle crossings. 	<p>The extra crossing will cause adverse effects on the efficiency and safe operation of the adjacent road.</p> <p>Taking into account existing and future (consented) crossings in the vicinity the extra crossing will have adverse cumulative effects.</p> <p>Adverse effects on landscaping adjacent to the road.</p>
<p>7.4.4.18 High trip generators</p> <ul style="list-style-type: none"> i. Access and manoeuvring (safety and efficiency): Whether the provision 	

<p>of access and on-site manoeuvring area associated with the activity, including vehicle loading and servicing deliveries, affects the safety, efficiency, accessibility (including for people whose mobility is restricted) of the site, and the transport network (including considering the road classification of the frontage road).</p> <p>ii. Design and Layout: Whether the design and layout of the proposed activity maximises opportunities, to the extent practicable, for travel other than by private car, including providing safe and convenient access for travel by such modes. Within the Northern Homebase Centre, this includes consideration of:</p> <ul style="list-style-type: none"> A. the provision of pedestrian and cycle access for the public and users of the Centre through the site from Sanctuary Gardens or Havana Gardens to Marshland Road; B. integration of pedestrian and cycle access with development (including building frontages, circulation routes, sightlines and lighting) within the Northern Homebase Centre; and C. any potential safety or nuisance effects and methods to address such effects including by way of a Crime Prevention Through Environmental Design ('CPTED') assessment. <p>iii. Heavy vehicles: For activities that will generate more than 250 heavy vehicle trips per day, whether there are any effects from these trips on the roading infrastructure.</p> <p>iv. Accessibility of the location: Whether the proposed activity has demonstrated the accessibility of the site by a range of transport modes and whether the activity's location will minimise or reduce travel to and from the activity by private vehicles and encourage public and active transport use.</p> <p>v. Network effects: Having particular regard to the level of additional traffic generated by the activity and whether the activity is permitted by the zone in which it is located, whether measures are proposed to adequately mitigate the actual or potential effects on the transport network arising from the anticipated trip generation (for all transport modes) from the proposed activity, including consideration of cumulative effects with other activities in the vicinity, proposed infrastructure, and construction work associated with the activity.</p> <p>vi. Strategic framework: Whether the proposal is consistent with the local and regional transport policy framework.</p>	
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<p>8.9.4.1 Nuisance</p> <p>a. The extent to which any potential dust nuisance, sedimentation and water or wind erosion effects can be avoided or mitigated.</p> <p>b. The extent to which effects on neighbouring properties, and on the road network, of heavy vehicle and other vehicular traffic generated as a result of earthworks can be avoided or mitigated.</p> <p>c. The extent to which any potential changes to the patterns of surface drainage or subsoil drains can be avoided or mitigated if those changes would put the site or adjoining land at higher risk of drainage problems, inundation run-off, flooding, or raise that site's or adjoining land's water table.</p> <p>d. Whether any change in ground level would be likely to impact on trees in terms of access to water and drainage.</p> <p>e. The extent of any potential adverse effects on the quality of groundwater and whether any such can be avoided or mitigated.</p> <p>f. The extent to which any adverse effects from noise and vibration associated with earthworks and land improvement can be avoided or mitigated, and the effectiveness of any methods to mitigate such effects.</p> <p>g. The extent to which earthworks in the Open Space Avon River Precinct (Te Papa Ōtākaro) Zone have an adverse effect on the Avon River and its margins</p>	<p>Adverse effects from dust.</p> <p>Adverse effects from sedimentation.</p> <p>Adverse effects from vehicle movements.</p> <p>Earthworks causing adverse drainage problems for adjoining land.</p> <p>Earthworks causing inundation problems on adjoining land – including flood run-off.</p> <p>Earthworks causing adverse effects on the quality of ground water.</p> <p>Earthworks causing noise effects during construction.</p> <p>Earthworks and ground Improvement causing vibration adverse effects on adjoining sites and activities.</p> <p>Note:</p> <p>The site is not in or adjacent to the Open Space Avon River Precinct (Te Papa Ōtākaro) Zone.</p>
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<p>8.9.4.2 Resources and assets</p> <ul style="list-style-type: none"> a. Whether versatile soils would be lost to production, or have their physical and biochemical qualities compromised. b. In relation to National grid transmission lines and electricity distribution lines <ul style="list-style-type: none"> i. the risk to the structural integrity of the National grid or electricity distribution lines; ii. compliance with <u>NZECP 34:2001</u>; iii. any implications arising from technical advice provided by the utility operator; iv. the effects on the ability of the utility operator to operate and upgrade and develop the National grid and/or electricity distribution lines, including on-going safe and direct access; and v. the effects on the ability of the utility operator to operate, upgrade and develop its utility, including on-going safe and direct access. 	<p>Note: No National grid or electricity distribution lines are on the site.</p>
<p>8.9.4.3 Land stability</p> <ul style="list-style-type: none"> a. Whether the earthworks affect the stability of adjoining land and its susceptibility to subsidence or erosion upon excavation taking place. b. The extent of any alteration to natural ground levels in the vicinity and, consequently, to the height and bulk of buildings that may be erected on the site. c. Whether the earthworks affect the future development potential of land for permitted activities, taking account of the nature of filling material proposed and the degree of compaction. 	<p>Excavation earthworks adversely affect the stability of adjoining land including through subsidence an erosion</p> <p>Earthworks contribute to the height and bulk of buildings.</p> <p>Earthworks not facilitating a building adversely affecting development potential of the site for permitted activities.</p>
<p>8.9.4.6 Amenity</p> <ul style="list-style-type: none"> a. The level of alteration to existing ground levels and the degree to which the resultant levels are consistent with the surrounding environment. b. The resultant effects that result from the earthworks in terms of visual amenity, landscape context and character, views, outlook, overlooking and privacy. 	<p>Earthwork change ground levels to the point where they are inconsistent with the surrounding environment.</p>

<p>9.1.5.2 Indigenous biodiversity and ecosystems</p> <p>a. The extent to which the nature, scale, intensity and location of the proposed activity will adversely affect indigenous biodiversity and ecosystems taking into account:</p> <ol style="list-style-type: none"> i. any loss of, or effects on, indigenous vegetation or habitats of indigenous fauna, including wetlands, ecological corridors and linkages; ii. indigenous ecosystem integrity and function; iii. Ngāi Tahu values associated with indigenous biodiversity; iv. where relevant, any effects on areas of significant indigenous vegetation and/or significant habitats of indigenous fauna in Sites of Ecological Significance listed in Schedule A of <u>Appendix 9.1.6.1</u>; and v. where relevant, any effects on indigenous vegetation and habitats of indigenous fauna in the coastal environment. <p>b. The extent to which areas of significant indigenous vegetation and/or significant habitats of indigenous fauna in Sites of Ecological Significance listed in Schedule A of <u>Appendix 9.1.6.1</u> will be protected to ensure no net loss of indigenous biodiversity;</p> <p>c. The extent to which adverse effects on indigenous biodiversity and Ngāi Tahu values will be managed to ensure indigenous biodiversity in the Christchurch District is maintained and enhanced;</p> <p>d. Any social, economic, environmental and cultural benefits resulting from the proposed activity including the extent to which the activity may protect, maintain or enhance any ecosystems or indigenous biodiversity offsets, including through the use of biodiversity offsets, covenants and/or restoration and enhancement;</p> <p>e. The risk of the increase in weed and pest species, and proposed management of pests; and</p> <p>f. Any locational, technical or operational requirements of the proposed activity and the practicality of avoiding indigenous vegetation, including the viability of alternatives.</p>	<p>Earthworks adversely affecting:</p> <ul style="list-style-type: none"> • Indigenous vegetation; • Indigenous fauna (wetlands, ecological corridors and linkages); <p>Adverse effects on Ngāi Tahu values.</p> <p>Increased risk of weed and pest species.</p> <p>Note:</p> <p>A. The site is not in the coastal area;</p> <p>B. The site is not in a site of ecological significance.</p> <p>C. The site is not in Appendix 9.1.6.1</p>
<p>9.2.8.1. Outstanding natural features and outstanding natural landscapes</p>	<p>Note: The site does not contain any outstanding natural features or landscapes</p>
<p>9.2.8.3 Natural character in the coastal environment</p>	<p>Note: The site in not in the coastal environment</p>
<p>6.6.7.1 Natural hazards All activities</p>	<p>Earthworks cause adverse effects on surface drainage.</p>

<p>a. Any adverse effects on surface drainage.</p> <p>i. Earthworks, buildings, or other structures including fences, decks, posts and struts, located in water body setbacks shall not impede the capability of waterway channels or ponding areas to store or convey surface water.</p> <p>ii. Adverse effects shall not be displaced to adjacent properties.</p> <p>b. The cumulative effect of developments adjacent to the water body on land drainage or flood risk.</p> <p>c. Any adverse effects likely as a result of tidal influences during flood periods including the potential for exacerbation of effects with sea level rise.</p> <p>d. The likely effects on the natural functioning of the water body, including any likelihood of work undertaken exacerbating inundation, erosion, alluvion or avulsion, whether upstream or downstream of the site.</p> <p>e. Any beneficial effects of the proposal for the function of the water body, such as decreased likelihood of blockage or improved surface drainage where these effects remain consistent with protecting the ecological health of the water body.</p> <p>f. Any functional necessity for the activity to locate within the water body setback.</p> <p>Additional for buildings, other structures and impervious surfaces</p> <p>g. The risk of damage to buildings and property posed by natural hazards including flooding, liquefaction (including lateral spread) and slumping and the scale and likelihood of that potential damage.</p> <p>Additional within a Flood Management Area:</p> <p>h. Matters of discretion that apply to buildings and/or filling and excavation in a Flood Management Area (Rules <u>5.4.1.5</u>, <u>5.4.2.4</u> and <u>5.4.3.3</u>, as relevant to the Flood Management Area).</p>	<p>Earthworks displace surface water to adjacent properties.</p> <p>Note: The earthworks are not adjacent to waterbodies. The earthworks are not in a flood management area.</p>
<p>8.9A.3</p> <p>a. Capacity in the relevant vacuum sewer system</p> <p>b. Effects of the proposed development on the capacity and operation of the vacuum sewer system and adjoining wastewater systems.</p>	<p>No capacity in the vacuum sewer system servicing the site.</p> <p>There are effects on the capacity and operation of the vacuum sewer and adjoining waste water systems.</p>