14. URBAN FORM & FUNCTION

Overview

This chapter outlines the potential effects of the Project on urban form and function and discusses the urban design effects of the key features of the Project. It is based on Technical Report 5, the Assessment of Effects on Urban Design.

A separate document, the Urban Design and Landscape Framework (ULDF) (Technical Report 6), describes the urban and rural environment in the project area in detail and sets out key design considerations for the Project, the way in which the design has responded to those matters, and how the detailed design for the Project needs to occur to secure an appropriate urban form and urban design outcome.

The process of assessing effects on urban form and function was carried out throughout the development of the Project and influenced decisions on design. The assessment was also informed by the feedback from consultation undertaken by the NZTA on urban planning and design issues.

In summary, it is considered that overall the Project will have moderate positive effects from an urban design perspective.

14.1. Introduction

The urban form and function issues and effects addressed in this chapter cover:

- land use and urban form compatibility;
- urban design amenity effects – compatibility of the design with the environment; and
- accessibility effects.

14.2. Land use and urban form compatibility

14.2.1. Key matters for assessment

Regional Policy Statement (RPS) Chapter 12A and PC54

The maps associated with Proposed Change 1 (PC1) to the RPS shows the greenfield business expansion areas in the vicinity of the Project area, which features land subject to what is now the operative Plan Change 54 to the Christchurch City Plan (PC54). The Project will sever part of this land between Marshs Road, the Project area and the disused railway track. This will appear as an isolated triangle-shaped pocket of light industrial buildings outside the Project area. The recommended urban design solution was that the Project defines an urban boundary for the PC54 land and the neighbouring parcels of land east to Springs Road. However, CCC's decision approving PC54 has confirmed that this isolated triangle of land is also now zoned Business 5.

South West Area Structure Plan (SWAP)

The SWAP includes a 2041 land use scenario, although this plan predates Proposed Change 1 to the RPS so does not show the greenfield business sites. The Project area is shown slightly further to the north on the SWAP plan than the current proposed alignment with the interchange at the Marshs and Shands Roads intersection. The actual Project area is located further south. The SWAP plan shows a greenfield residential growth area (Knights Stream) to the east of the Project area on Halswell Junction Road. All of the land south of Shands Road interchange is a rural zone with some light industrial ribbon development along Main South Road. With respect to the MSRFL part of the Project, SDC officers have confirmed that while they support inclusion of a rear access lane for properties on Main South Road, they do not want to encourage further non-rural activities along in the rural area.

14.2.2. Assessment of land use and urban form compatibility

The key land use and urban form challenges identified relate to the following locations:

- the PC54 site;
- the Knights Stream residential area; and
- the Main South Road area.

The issue of appropriate land use on the PC54 land severed by the Project is important from a compact urban form and strong urban boundary perspective. Although the potential severance effect is created by the Project, the industrial zoning and buildings that could be erected as of right are an outcome that has arisen as a result of the PC54 decision, rather than the Project. In any event, the Project in conjunction with PC54 re-zoning creates only minor effects in terms of urban form and function. The Project alignment was chosen as it severed less land than the other alternatives that were considered. Further changes to the Christchurch City Plan could address this potential effect, however that cannot be achieved through this Project.

The Knights Stream greenfield residential area is sufficiently separated from the Project area to ensure that adverse urban design effects on this area are avoided. The Halswell Junction Road interchange will offer excellent access for this area, so the Project has a positive effect in terms of implementing this growth area. The extent of greenfield business areas has been extended by PC 1 to the RPS. The Halswell Junction Road and Shands Road interchanges offer much improved accessibility to these business growth areas.

The NZTA supports SDC officer comments made through consultation and would likewise not want to support the proliferation of urban growth along Main South Road. However, this land use effect can only be managed through suitable district plan rules.

14.2.3. Summary of land use and urban form effects

From an urban design perspective, the Project is consistent with regional planning documents and will offer important accessibility to greenfield residential and business areas. As a result, it offers a significant enhancement in terms of land use and urban form.

14.3. Urban design amenity

14.3.1. Assessment of urban design amenity effects

The CSM2 component of the Project is consistent with the Christchurch Southern Motorway RoNS "parkway" design vision contained within the CSM1 Masterplan. The Project has a gently curving alignment that opens to views of the Southern Alps and Port Hills. The parkway design will maintain rural amenity in the rural 'gap' between Christchurch City and Prebbleton. Views from Main South Road are more limited due to it being a widening of the existing road, so a parkway appearance is not appropriate. The Project will provide a significant amenity enhancement for motorists compared to using the existing SH1. The Project will also provide off-corridor positive amenity benefits for Templeton, with a 40% reduction in traffic volumes on SH1.

The industrial urban area north of Marshs Road has a low existing amenity and there are no specific requirements in the RPS or Christchurch City Plan for the Project in this respect. Therefore, with the proposed landscape mitigation, the Project will have only minor urban design amenity effects from this location. The proposed Knights Stream greenfields residential area is sufficiently separate from the Project alignment that there will be no urban design amenity effects on this area.

Development associated with the PC54 site will potentially have an adverse effect on amenity for the entry/exit appearance for Christchurch City for road users, but this potential effect is generated by PC54, rather than this Project. The erection of warehouses 12 to 20m high and only set back 1.5 m is a permitted activity under the Christchurch City Plan. If such warehouses were built, this could result in a line of blank warehouse walls on either side of the motorway, creating a 'canyon-like' effect for road users for approximately 1400 metres (but with a 250 metre long gap immediately east of the rail trail where the area is not zoned "Business 4"). The proposed landscaping for the Project in this area are trees of five metres in height, so 12-20 metre high warehouses would visually dominate the road user's view. However, this urban design issue is not an effect caused by the Project, rather, it is a potential effect on road users of development authorised by PC54. At the time that PC54 was approved by CCC, it was aware of the Project and CSM2 was shown on Chapter 12A of the RPS planning maps. (Note: at that time, Chapter 12A of the RPS was operative as the judicial review had not been filed).

The SWAP includes a southern gateway location for Christchurch City at Halswell Junction Road. Shands Road interchange is preferred by the author of the Assessment of Effects on Urban Design as a southern gateway location rather than Halswell Junction Road, as the interchange will have south and north facing ramps to make it a true gateway. The Project design does not preclude either option if CCC prefers the latter, and both locations in the CSM2 area are included as options

in the Project Urban Design and Landscape Framework (ULDF) as the NZTA is not proposing to build a gateway structure. It is important to note that the southern gateway is a CCC initiative and that the Project design does not preclude CCC choosing Carrs Road pedestrian bridge, Halswell Junction Road interchange or Shands Road interchange when CCC makes a decision on this. Therefore, there are no urban design amenity effects associated with either gateway location.

The assessment of effects on amenity associated with the proposed bridges is outlined as follows:

- the proposed concept for the Weedons, Waterholes, Springs and Halswell Junction Road bridges are simple in construction, appearance and are consistent with the 'parkway design vision'.
- the Trents Road and Shands Road Bridges change to a 'super tee' deck structure, however from an urban design perspective, this change is considered acceptable as the visual difference for the motorist is minimal.
- if the Shands Road Bridge is to form part of a southern gateway, then the bridge structure may require design enhancement. The headstock beam may need to be reviewed to provide less interruption to shadow lines from the cantilevered footpath and enhanced pier designs could be used as part of an enhanced gateway treatment. This issue is raised in the ULDF, but is a potential positive effect rather than an adverse effect of the Project.
- the Main South Road southbound and Marshs Road overbridges have open spill through abutments and pedestrian/traffic barriers that are consistent with other bridges. However the deck structure changes to steel beams due to the long spans over CSM2 at the centreline piers. This introduces another deck soffit and the change with concrete beams at the outside piers results in a different bridge type. Barriers and abutment treatment on these bridges will be consistent with the Project's visual and thematic design concepts.

14.3.2. Summary of amenity effects

Overall, the parkway appearance of CSM1 will be extended through to Main South Road, which is regionally important as a major gateway for Christchurch and the Selwyn District. The Project will result in moderate positive urban design amenity effects.

14.4. Accessibility

As the adverse access effects along Main South Road relate to a limited number of properties that already have compromised access, these effects are considered to be minor. Improvement of the local road cross corridor connections, pedestrian connectivity in Templeton and general access to the Knight's Stream residential area are community wide benefits, so they offer moderate positive benefits. From an urban design perspective, the Project will result in moderate positive effects in terms of accessibility.

14.5. Mitigation measures

No mitigation measures have been recommended in relation to urban form or urban design effects. Conditions are proposed which require that in the design and construction of the Project, the key design principles in the ULDF are taken into account.

14.6. Conclusion

The Project is consistent with the SWAP and regional policy, it maintains existing local road linkages and encourages proposed land uses, and will offer important accessibility to greenfield residential and business areas. The issue of appropriate land use on the PC54 land is important from a compact urban form and strong urban boundary perspective, although any adverse amenity effects arising from buildings on the PC54 land are not direct effects of the Project.

The proposed design will result in the parkway appearance of CSM1 being extended through to Main South Road, and will allow the opportunity for a gateway location to be established. The proposed bridges are generally consistent with the parkway appearance, although the Main South Road Southbound Bridge and Marshs Road overbridge are different to the other bridges visually.

As the Project will improve local road cross-corridor connections, pedestrian connectivity in Templeton, and general access to the surrounding area it will have community wide benefits in this respect. It is therefore considered that the Project will result in positive effects with respect to accessibility.

Based on a combined assessment of the land use, urban form, amenity and accessibility effects, it has been assessed that the Project will result in moderate positive effects with regard to urban design matters.