

Part 3

Designing building envelopes

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Designing building envelopes

This section provides guidance on designing building envelopes to respond to the residential development provisions of planning schemes.

A building envelope is not required to deal with all of the siting and design matters covered by clause 54. The range of clause 54 provisions that building envelopes deal with is a matter for negotiation with the responsible authority. Siting and design matters that apply to single dwellings under the Building Regulations, but which are not explicitly included in a building envelope, will be assessed at the building permit application stage.

Reference should be made to the Victoria Planning Provisions (VPPs) or the relevant planning scheme for the specific wording of the planning scheme provisions.

1 Lot Layout

The provisions of clause 56 of all planning schemes include requirements for lot size and orientation. These requirements are included in clause 56.06, and address the following matters:

- Lot diversity objective (Standard C18)
- Solar orientation (Standard C19)
- Site constraints and features objective (Standard C20)
- Lot area and dimensions objective (Standard C21)

The layout and orientation of allotments will have implications for the design and effect of building envelopes.

Design suggestions:

- Orient the long axis east-west to maximise northern orientation opportunities.
- Avoid creating numerous 'edge' allotments.

'Edge' allotments are lots adjoining lots which are not part of the same subdivision or agreement. The provisions of standard C21 of clause 56 of planning schemes, and regulation 4.2(A) of the Building Regulations result in the situation that the full effect of the Building Regulations applies at the interface between lots with building envelopes and lots that are not part of the same subdivision or agreement. To maximise the effect of building envelopes, direct interface of such allotments should be kept to a minimum. Options to achieve this include defining the border of a new subdivision with:

- Roads
- walkways
- public open space

2 Designing to comply with clause 54 standards

Building envelopes can be designed to comply with the standards of clause 54, rather than the objectives. Such building envelopes may be designed to comply with the standards either wholly or in part (i.e. building envelopes may achieve compliance with a combination of standards and objectives).

3 Designing to comply with clause 54 objectives

Building envelopes can be designed to comply with the objectives of clause 54, rather than the standards. Such building envelopes may be designed to comply with the objectives either in whole or in part (that is, building envelopes may incorporate compliance with a combination of standards and objectives).

The objectives provide for flexibility in design, rather than compliance with prescription. This flexibility could result in an outcome that is less restrictive than the outcome that would have resulted from compliance with the standard.

This 'flexibility' does not mean the automatic right to design below what the corresponding standard achieves. The same objective must be met. Meeting an objective could in some circumstances be more restrictive than the result of compliance with the corresponding standard. When designing to comply with objectives the focus should be on an outcome that achieves the objective, rather than whether the outcome is more or less restrictive than the corresponding standards.

Designing building envelopes to the clause 54 standards would have the following advantages:

- The building envelope design process would normally be simple.
- The outcome of the application of the building envelopes would normally satisfy the corresponding objective.
- The built form outcomes will achieve at least the minimum standards.

Reasons to depart from the Clause 54 standards in designing the envelopes may include:

- The building envelopes may not provide the most appropriate design outcomes for that site
- An alternative design may meet the objectives better than the standards do
- The potential for innovative design solutions and sharing of responsibility for amenity protection between neighbours is not optimised.

The following design suggestions are provided to assist in designing building envelopes to meet the objectives of the siting and design provisions of clause 54 of planning schemes.

3.1 Decision guidelines

The decision guidelines set out the matters that the responsible authority must consider before deciding if an application meets the objectives. The decision guidelines should be used in applying the objectives.

3.2 General design suggestions

The following are general design suggestions for any building envelopes being designed to comply with the objectives of clause 54.

- Respond to any applicable policy statement in the Local Planning Policy Framework.
- Take account of any change to the corresponding standard in a schedule to the Neighbourhood Character Overlay, if applicable.
- Within new subdivisions, references to the term ‘existing dwelling’ include dwellings that will be built in the future. ‘Existing dwellings’ in this context should be considered in the context of the building envelopes that set the parameters within which they will be built.
- If an adjoining lot is not part of the same subdivision or agreement, the building envelope should be designed so that a dwelling constructed to the extent of the building envelope will be able to comply with the relevant planning scheme provisions or Building Regulations that will apply.
- The existence or location of buildings on such an adjoining lot may change between the time the building envelopes are designed and when the building regulations or the planning scheme requirements are applied to a development application. Wherever possible, building envelopes for edge lots should be designed to avoid future difficulties in complying with the building or planning standards in regards to adjoining lots, even if the adjoining lot is currently vacant.
- Avoid specifying particular functions or purposes as part of building envelopes (e.g. specifying areas for garages or private open space) unless absolutely necessary for the effectiveness of the building envelopes.

54.03-1 Street setback

Objective

Setbacks of buildings from a street should:

- Respect existing or preferred neighbourhood character.
- Make efficient use of the site.

Design suggestions

- Take account of any change to the corresponding standard in the schedule to the residential zone, if applicable.

- The pattern of front setbacks of buildings can have a significant influence on streetscape and neighbourhood character. Consider using front setbacks to achieve the desired character outcome for the new subdivision.
- Consistent setbacks can strongly reinforce a streetscape or neighbourhood character, while staggered setbacks create variety and interest.
e.g. The building envelopes could define the front setback within a range (e.g. between 5.0m – 7.0m) from the street frontage in order to encourage variety.
- If applying staggered setbacks, note the potential overshadowing of front windows by buildings next door which will be set further forward
- Graduate setbacks at the interface of a new subdivision with an existing residential area.
e.g. Where new lots will adjoin an existing residential area, the front setback of the building envelope of the new lot adjoining the existing residential area could be specified as being not less than the setback of the nearest existing dwelling. The front setback for the new subdivision could then be graduated over the subsequent new lots to create a transition between the existing residential area to the preferred front setback for the new subdivision.
- Garages set forward of dwellings can dominate the streetscape and negatively impact on neighbourhood character. If setbacks of garages are likely to be an issue, consider specifying garage placement as part of the building envelope.
- If specifying garage placement as part of the building envelope, consider requiring that the garage be no further forward than the front setback of the associated dwelling.
- If vehicle crossovers are to be constructed or designated as part of the subdivision construction, ensure that the building envelope responds to the placement of the vehicle crossover location.
e.g. Align garage zones with vehicle crossovers
- Consider providing a five metre minimum setback for garages to provide for parking of vehicles in front of the garage.
- Ensure that the setback of the garage would not encourage vehicles to be parked in front of the garage in such a way that they will intrude into the public footpath / road reserve.
e.g. provide for sufficient setback for garages from front boundaries to accommodate a parked car, such as 5 metres.
- Clarity in the application of the street setback requirement of a building envelope can be provided by specifying whether or not encroachments are permitted within the setback, and if so, by specifying the allowable encroachments.

Note: Allowable encroachments should be consistent with those contained within the corresponding standards within the Building Regulations.

54.03-2 Building height

Objectives

Height of buildings should:

- respect the existing or preferred neighbourhood character.

Design suggestions

- Take account of any change to the corresponding standard in the schedule to the residential zone, if applicable.
- The pattern of the height of buildings can have an influence on streetscape and neighbourhood character. Consider using building heights to achieve the desired character outcome for the new subdivision.
- Graduate building heights at the interface of a new subdivision with an existing residential area.
 - e.g. The building height for the new subdivision could be graduated between the new lot adjoining the existing residential area and the subsequent new lots to create a transition between the predominant building heights of the existing residential area to the preferred building height for the new subdivision.*
- Consider applying varying building heights to create interest and direct a preferred character outcome.
 - e.g. Minimising building heights (e.g. single storey segments) for the front portion of building envelopes will minimise the visual bulk of buildings when viewed within the streetscape, or alternatively when viewed from the private open spaces at the side and rear of lots if the building height is minimised for the rear portion of the building envelope.*
- Consider minimising building heights (e.g. single storey segments) for parts of building envelopes adjacent to lots not part of the same subdivision or agreement, to help the future building comply with amenity regulations in relation to the adjoining lots.
- Ensure that building envelopes allow for sloping sites.
- Where a new subdivision includes areas of sloping land, consider applying an appropriate building height to building envelopes across the segment/s of the subdivision within which sloping sites will occur, rather than identifying individual lots that will feature sloping land.
- Consider building height in conjunction with other relevant siting and design provisions including:
 - side and rear setbacks;
 - solar access to north facing windows;
 - overshadowing;
 - daylight to new windows.
- Consider the impact of building height on overshadowing of the potential private open space/s (i.e. the areas to the side and rear of building envelopes) of the lot and adjoining lots.
- Consider expectations of and opportunities for protection or facilitation of views. Building heights of particular lots within the subdivision may need to be designed to maintain or create view corridors.

54.03-3 Site coverage

Objectives

Ensure that site coverage:

- Respects the existing or preferred neighbourhood character.
- Responds to the features of the site.

Design suggestions

- Take account of any change to the corresponding standard in the schedule to the residential zone, if applicable.
- Building envelopes are often very generous in size to provide adequate flexibility to accommodate a range of design solutions. Building envelopes are not normally designed to be fully built to. Specification of a site coverage restriction as part of the building envelope will clarify the extent to which development can occur within the constraints of the building envelope. If the envelope does not specify site coverage, the Building Regulations (or a planning scheme provision, if applicable) will limit site coverage. .
- Allow for difficult sites
- Consider how providing for permeability of the site will be addressed, taking into account non permeable surfaces (such as driveways and paths) that will not be contained within the building envelope.
- Consider how providing for private open space requirements will be addressed, taking into account that in most instances the areas of secluded private open space will be to the side or rear of the building envelope (rather than within the front setback area).
- A maximum site coverage of 60 per cent will generally allow for permeability and private open space requirements to be met.
- Do not use a site coverage provision as part of a building envelope to achieve an outcome to another matter such as vegetation protection. Any provision of a building envelope relating to site coverage should achieve the relevant clause 54 objective.

54.03-4 Permeability

Objectives

- Reduce the impact of increased stormwater runoff on the drainage system.
- Facilitate on-site stormwater infiltration.

Design suggestions

- In many instances, a building envelope which defines setbacks from lot boundaries in conjunction with a site coverage restriction (either specified within the building envelope or as regulated by the Building Regulations) will adequately provide for permeable surfaces on a lot. It may not be necessary to specify a requirement for permeable surfaces as part of the building envelope – the application of the relevant planning scheme provision or Building Regulation would normally be sufficient, and able to be met.
- If provision of permeable surfaces is to be dealt with in a building envelope, aim for minimum infiltration of at least 20 per cent of the lot area.

- Alternative approaches to minimising the impact of stormwater run-off include on-site stormwater retention mechanisms. Application of such alternatives to stormwater management could reduce the permeable area required.
- Do not use a permeable surface provision as part of a building envelope to achieve an outcome to another matter such as site coverage or vegetation protection. Any provision of a building envelope relating to permeability should be expressly provided to achieve the relevant clause 54 objective.

54.03-5 Energy efficiency protection

Objectives

- Achieve and protect energy efficient dwellings.
- Ensure the orientation and layout of development reduces fossil fuel energy use and makes appropriate use of daylight and solar energy.

Design suggestions

- Where possible, orient building envelopes along north-south / east-west axes to maximise solar control.
- Design building envelopes to maximise opportunities for habitable room windows to be oriented to the north.
- Consider restricting the location of windows (particularly habitable room windows) to maximise energy efficiency.
e.g. Minimise south-facing windows.
- Provide a setback for building envelopes of at least three metres from northern boundaries where north is to the side or rear.
- Provide solar access corridors to north faces of other building envelopes.
- Provide opportunities for external walls of dwellings on adjoining lots to abut each other.

54.03-6 Significant trees

Objectives

To encourage:

- Development that respects the landscape character of the neighbourhood.
- Retention of significant trees on the site.

Design suggestions

- Design building envelopes to provide areas for the provision of open space consistent with the landscape character to be retained or achieved.

- Plan building envelopes around significant trees or landscape features on the site. However, if the retention of the significant trees or landscape features is specifically intended, a separate restriction should be considered. The existence of a building envelope addressing siting and design matters will not restrict vegetation removal.
- Plan building envelopes to allow for continuation of significant flora and fauna habitats indicated on the site and context description or in the relevant planning scheme.
- Plan building envelopes to allow for planting of trees to provide shade, habitat, wind protection etc as needed.

54.03-7 Parking

Objectives

- Ensure that car parking is adequate for needs of residents.

Design suggestions

- Car parking provision can be addressed in a building envelope by either:
 - Specifying a requirement for the number of car parking spaces to be provided on the site; and/or
 - Specifying the location for car parking spaces on the site.
- It may not be necessary to specify a requirement for car parking as part of the building envelope – the application of the relevant planning scheme provision or Building Regulation would normally be sufficient, and able to be met.
- Consider how the layout of the lot and the associated building envelope will allow for at least two accessible spaces to accompany a standard dwelling design.
- Consider how the car parking spaces will be easily accessed from a street or lane.
- If vehicle crossovers are to be constructed or designated as part of the subdivision construction, ensure that the building envelope responds to the placement of the vehicle crossover location.
e.g. align car parking spaces or zones with vehicle crossovers.
- If provision of car parking is to be dealt with in a building envelope, try to avoid tandem parking. Most lots to which building envelopes will be applied should be of sufficient area to not rely on tandem car parking to provide the required car parking for residents.
- If specifying garage placement as part of the building envelope, consider requiring that the garage be no further forward than the front setback of the associated dwelling.
- Consider providing a five metre minimum setback for the designated car parking spaces or garages to provide for parking of additional vehicles in front of the car spaces or garage.
- Where it is not intended to provide for parking of vehicles in front of the designated car parking spaces or garages, ensure that the setback of the garage would not encourage vehicles

to be parked in front of the car spaces or garage and overhanging the public footpath / road reserve.

- Consider using building envelopes to limit the dominance of car parking within the streetscape.

e.g. Where allotments are narrow, the building envelope could limit the width of a car parking space, garage or carport to a single car space width.

- The location of crossovers and driveways can be used to enhance solar access to the northern facades of dwellings.

e.g. By locating driveways (and thus car parking spaces) along northern allotment boundaries, the building envelope can provide for a dwelling to be set back the width of the driveway (approximately three metres) from the northern boundary.

54.04-1 Side and rear setbacks

Objectives

Ensure that height and setback of a building from a boundary:

- Respects the existing or preferred neighbourhood character; and
- limits impact on the amenity of existing dwellings.

Design suggestions

- Take account of any change to the corresponding standard in the schedule to the residential zone, if applicable.
- The pattern of separation between buildings can have an influence on streetscape and neighbourhood character. Consider using side and rear setbacks to achieve the desired character outcome for the new subdivision.
- Consider side and rear setbacks in conjunction with other relevant siting and design provisions including:
 - building height;
 - solar access to north facing windows;
 - overshadowing;
 - overlooking;
 - daylight to new windows.
- Provide generous setbacks for building envelopes from northern boundaries to maximise solar orientation opportunities.

e.g. Provide a setback of at least 3m from north boundaries.
- Coordinate setbacks between building envelopes on adjoining lots to maximise solar orientation opportunities.
- Consider the impact of side and rear setbacks on overshadowing of the potential private open space/s (i.e. the areas to the side and rear of building envelopes) of the lot and adjoining lots.
- Coordinate setbacks between building envelopes on adjoining lots to achieve compliance with the overlooking objective or standard.

- The combination of sloping land and side and rear setbacks can affect the appearance of visual bulk of buildings. Consider the impact of any slope on the lot and adjoining lots, and design the side and rear setbacks of building envelopes to minimise the appearance of visual bulk.
- If an adjoining lot is not part of the same subdivision or agreement, the building envelope must meet the prescribed side and rear setback standard under clause 54 in relation to that adjoining lot.

54.04-2 Walls on boundaries

Objective

Ensure that the location, length and height of a wall on a boundary:

- Respects the existing or preferred neighbourhood character;
- Limits the impact on amenity of existing dwellings.

Design suggestions

- The pattern of separation between buildings can have an influence on streetscape and neighbourhood character. Consider the impact of the location of walls on boundaries on achieving the desired character outcome for the new subdivision.
- Consider walls on boundaries in conjunction with other relevant siting and design provisions including:
 - building height;
 - solar access to north facing windows;
 - overshadowing;
 - daylight to new windows;
 - solar access to open space.
- Coordinate building setbacks and walls on boundaries between building envelopes on adjoining lots to maximise solar orientation opportunities.
e.g. Do not allow high walls on boundaries adjacent to northern faces of building envelopes on adjoining lots where those building envelopes do not provide for their own solar access via a generous setback from their northern boundary.
- Consider the impact of walls on boundaries on overshadowing of the potential private open space/s (i.e. the areas to the side and rear of building envelopes) of the lot and adjoining lots.
- Provide opportunities for external walls of dwellings on adjoining lots to abut each other.
- Design building envelopes to avoid small, unserviceable gaps between boundary walls.
- The combination of sloping land and walls on boundaries can affect the appearance of visual bulk of buildings. Consider the impact of any slope on the lot and adjoining lots, and design the walls on boundaries of building envelopes to minimise the appearance of visual bulk.

- Relate boundary wall heights to the setbacks of building envelopes on adjoining lots, to minimise perceptions of visual bulk from the adjoining lots. The closer adjoining building envelopes are to the common boundary, the lower the boundary wall height should be. The further away adjoining building envelopes are from the common boundary, the higher the boundary wall height could be.
- In most instances, the walls constructed on boundaries will be garage walls. Ensure that the lengths of boundary walls provided for by the building envelope are of sufficient length to accommodate at least a garage wall on the boundary.
e.g. Provide a boundary wall length of at least 6.5m - this provides for a 6.0m internal dimension for the car space/s plus the depth of the end walls of the garage.
- Consider providing some flexibility for the location of walls on boundaries. Not all walls constructed on boundaries will be garage walls. Dwelling designs may incorporate a combination of garage walls and dwelling walls constructed along the boundary. This is particularly so with site specific designs (i.e. not 'project' homes) or dwelling designs for narrow lots. Also, not all garages are located at the front of dwellings; some dwelling designs incorporate garages further along the side of the dwelling.
- To provide flexibility in the location of walls on boundaries, consider designating a zone/s on the building envelope within which walls can be constructed on boundaries, in conjunction with a restriction on the maximum length and height of the wall.
e.g. A building envelope could designate a 'wall on boundary zone' of 20m in length, commencing at a setback of five metres from the front boundary line, within which any walls on boundaries must be constructed, and incorporating the specification that the wall on the boundary be a maximum length of 10m, with the specified maximum wall and building height dimensions set to accommodate only single storey construction.
- To accommodate a wide range of dwelling designs, consider designing building envelopes to allow walls on either side boundary, rather than restricting boundary walls to only one boundary.
- To provide a degree of flexibility in the height of boundary walls, to accommodate a range of dwelling designs, design the height of boundary walls to be proportional to their length.
e.g. A building envelope could provide for an average boundary wall height of 3.3m (rather than the 3.0m required in the prescriptive standard), with a maximum height of 3.6m, where the boundary wall is a maximum length of 6.5m (rather 10m plus 25% of the remaining length of the boundary).
- When designing building envelopes for lots to accommodate 'terrace' dwelling types, setbacks should allow shared or abutting party walls. The envelopes need to show how dwellings which share party walls will relate to each other.
e.g. Provide for the height of walls on boundaries for terrace dwellings to accommodate two storey heights along side boundaries.
- If an adjoining lot is not part of the same subdivision or agreement, the building envelope must meet the prescribed walls on boundaries standard under clause 54 in relation to that adjoining lot.

54.04-3 Daylight to existing windows

Objectives

- Allow adequate daylight to existing habitable room windows.

Design suggestions

- Coordinate setbacks between building envelopes on adjoining lots to provide for adequate daylight to windows of dwellings that will be built in conformity with the building envelopes.
- To ensure windows will have adequate access to daylight, consider designating a zone/s on the building envelopes within which habitable room windows must/must not be located.
- If an adjoining lot is not part of the same subdivision or agreement, the building envelope should be designed so that a dwelling constructed to the extent of the building envelope will be able to comply with the relevant planning scheme provision or Building Regulation that will apply in relation to daylight to existing habitable room windows of a dwelling on that adjoining lot.

54.04-4 North facing windows objective

Objective

- Allow adequate solar access to existing north-facing habitable room windows.

Design suggestions

- Consider solar access to north-facing windows in conjunction with other relevant siting and design provisions including:
 - building height;
 - side and rear setbacks;
 - walls on boundaries.
- Provide generous setbacks for building envelopes from northern boundaries to provide for solar access to north-facing windows.
 - e.g. Provide a setback of at least 3m from north boundaries.*
- Coordinate setbacks between adjoining lots to provide for solar access to north-facing windows.
 - e.g. Provide greater setbacks from northern faces of building envelopes on adjoining lots where those building envelopes do not provide for their own solar access via a generous setback from their northern boundary.*
- Coordinate building setbacks and walls on boundaries between building envelopes on adjoining lots to provide for solar access to north-facing windows.

e.g. Do not place walls on boundaries adjacent to northern faces of building envelopes on adjoining lots where those building envelopes do not provide for their own solar access via a generous setback from their northern boundary.

- Avoid allowing wall heights on or adjacent to southern boundaries that will block sunlight to windows in the north facing walls of houses which will be part of the same subdivision.
- If an adjoining lot is not part of the same subdivision or agreement, the building envelope should be designed so that a dwelling constructed to the extent of the building envelope will be able to comply with the relevant planning scheme provision or Building Regulation that will apply in relation to solar access to existing north-facing habitable room windows of a dwelling on that adjoining lot.

54.04-5 Overshadowing open space

Objective

- Ensure that buildings do not unreasonably overshadow existing secluded private open space.

Design suggestions

- Ensure that the building envelopes on each lot provide for a useable portion of open space outside of the building envelope and which will not be overshadowed by buildings on adjoining lots (including buildings that will be built in conformity with the building envelopes).
- Consider overshadowing in conjunction with other relevant siting and design provisions including:
 - building height;
 - side and rear setbacks;
 - walls on boundaries;
 - private open space.
- Consider the impact of building height on overshadowing of the potential private open space/s (i.e. the areas to the side and rear of building envelopes) of the lot and adjoining lots.
- Coordinate setbacks between building envelopes on adjoining lots to minimise overshadowing between adjoining lots.
- Minimise walls on boundaries adjacent to the sunniest rear portions of adjoining lots.
- Consider the overshadowing impact of a building constructed to the extent of the building envelope on the open space areas on that same lot.
- Take account of shadows that will be cast by boundary fencing.
- Consider designating an area of private open space on each lot that is protected from overshadowing by the building envelopes on adjoining lots.

- If an adjoining lot is not part of the same subdivision or agreement, the building envelope should be designed so that a dwelling constructed to the extent of the building envelope will be able to comply with the relevant planning scheme provision or Building Regulation that will apply in relation to overshadowing of private open space of a dwelling on that adjoining lot.

e.g. Minimise building heights (e.g. single storey segments) for parts of building envelopes adjacent to lots not part of the same subdivision or agreement.

54.04-6 Overlooking

Objective

Limit views into existing secluded private open space and habitable room windows.

Design suggestions

- Ensure that the building envelopes on each lot provide for a useable portion of open space outside of the building envelope which will not be unreasonably overlooked by habitable room windows or raised open spaces of dwellings on adjoining lots (including buildings that will be built in conformity with the building envelopes).
- Consider overshadowing in conjunction with other relevant siting and design provisions including:

side and rear setbacks;

private open space.

- Coordinate setbacks between building envelopes on adjoining lots to minimise overlooking between adjoining lots.

e.g. Building envelopes on adjoining lots could each provide 4.5 metre setbacks of upper storeys containing habitable room windows, so that the distance between habitable room windows in dwellings built on adjoining lots in conformity with the building envelopes will be a minimum of 9 metres.

- The combination of sloping land and side and rear setbacks can have implications for overlooking between dwellings. Consider the impact of any slope on the lot and adjoining lots when designing building envelopes to minimise overlooking.
- Consider designating a zone/s on the building envelopes within which habitable room windows and raised open spaces cannot be located except with appropriate screening or other treatment to obstruct a direct line of sight from the window or open space to a neighbouring property.
- Consider that if habitable room windows in dwellings on adjoining lots will directly face each other, only one of the habitable room windows in a 'facing pair' will need to eliminate a direct line of sight.
- If applying 'overlooking zones', within which habitable room windows can be located, provide flexibility in the placement of windows within these zones by designing the zones to accommodate a range of window placements for multiple rooms along a section of a building envelope, rather than designating zones that effectively prescribe the exact location of individual windows.

- Consider applying ‘non-overlooking zones’ to building envelopes adjacent to areas of potential secluded private open space on adjoining lots.
- Take into account the impact of structures (i.e. buildings, fences etc) on obstructing a direct line of sight, and coordinate placement of habitable room windows, building setbacks and location of structures to minimise overlooking between adjoining lots.

e.g. A building setback of 5 metres from a rear boundary for upper storeys, in conjunction with a boundary fence height of 1.8m, should result in the boundary fence obstructing the line of sight from a second storey window down into the rear secluded private open space of the adjoining lot to the rear, unless the lots have a pronounced slope.

- Specify minimum fence heights for side and rear boundary fences where required to achieve an appropriate barrier to overlooking between ground floor areas of dwellings on adjoining lots.
- Maximise opportunities for constructing shared walls on boundaries, where appropriate, to minimise the provision of habitable room windows in side walls facing adjoining lots.
- Where providing for walls to be constructed along lot boundaries, specify as part of the building envelope that no windows may be constructed in walls abutting the boundary of adjoining lots.
- Consider designating an area of private open space on each lot that is protected from overlooking by the building envelopes on adjoining lots.
- If an adjoining lot is not part of the same subdivision or agreement, the building envelope should be designed so that a dwelling constructed to the extent of the building envelope will be able to comply with the relevant planning scheme provision or Building Regulation that will apply in relation to overlooking of secluded private open space of a dwelling on that adjoining lot.

54.05-1 Daylight to new windows

Objective

- Allow adequate daylight to new habitable room windows.

Design suggestions

- Daylight to new windows should be considered in conjunction with other relevant siting and design provisions including:
 - building height,
 - side and rear setbacks;
 - walls on boundaries.
- Coordinate setbacks between building envelopes on adjoining lots to provide for adequate daylight to windows of dwellings that will be built in conformity with the building envelopes.

- Ensure that where the building envelope provides a setback from a boundary with an adjoining lot, the setback from that boundary is an adequate distance to provide for daylight access to habitable room windows.
e.g. Provide a minimum setback of 1m from side and rear boundaries for a length of 3m around walls which can contain habitable room windows.
- Where the building envelope provides for eaves to encroach beyond the limits of the building envelope, provide a setback of 1m plus a distance equivalent to the maximum depth of the allowable eave encroachment.
- Where providing for walls to be constructed along lot boundaries, specify as part of the building envelope that no habitable room windows may be constructed in walls abutting the boundary of adjoining lots.
- To ensure that windows will have adequate access to daylight, consider designating a zone/s on the building envelopes within which habitable room windows must/must not be located.
- If applying a ‘habitable room window’ zone/s, ensure the setbacks of the zone/s from building envelopes and boundaries will provide sufficient access to daylight for windows placed within the zone/s.

54.05-2 Private open space

Objective

- Provide adequate private open space for reasonable recreation and service needs of residents.

Design suggestions

- Take account of any change to the corresponding standard in the schedule to the residential zone, if applicable.
- Ensure that the extent of a building envelope allows for the provision of an adequate area/s of open space on each lot outside of the building envelope.
- To meet the objective, greater than minimum setbacks from lot boundaries can be specified so that a dwelling built to the extent of the building envelope will include reasonable areas outside of the building envelope to fulfil open space requirements.
e.g. For a standard lot of 16m wide and 32m deep, providing a building envelope setback of 5m from the front boundary and 3m from the rear boundary, for the full width of the lot, would provide two areas of private open space – front yard = 80sq.m (less driveway area of approx. 6m wide x 5m deep = 30sq.m); rear yard = 48sq.m; total private open space = 98sq.m.
- Consider private open space in conjunction with other relevant siting and design provisions including:
 - Overshadowing open space;
 - Overlooking;
 - Solar access to open space.

- Design building envelopes, through manipulation of setbacks, to orient areas of potential private open space to achieve solar access.
- Consider designating / identifying an area of open space on each lot that is protected from overshadowing and overlooking by the building envelopes on adjoining lots. This could be used as a guide for land owners to plan their dwelling design to maximise the use of this area as their primary area of private open space, without specifying a required location for a private open space area/s on the lot.
- Specifying where private open space should be located on a lot should normally only be considered where there are particular site constraints or integrated design outcomes that necessitate such prescription.

54.05-3 Solar access to open space

Objective

- Allow solar access into the secluded private open space of a new dwelling.

Design suggestions

- Consider solar access to private open space in conjunction with other relevant siting and design provisions including:
 - Walls on boundaries;
 - Overshadowing open space;
 - Private open space.
- Design building envelopes, through manipulation of setbacks, to orient areas of potential private open space to achieve solar access.
- Where practicable, provide greater building envelope setbacks along the north side of a lot to allow for the provision of private open space with good solar access.
- Where a building envelope makes it likely that primary areas of private open space will be provided adjacent to a neighbour's wall to the north, the envelope should provide for an adequate setback of the southern boundary of the open space area to achieve appropriate solar access to the private open space.
- Consider designating / identifying an area of open space on each lot that is protected from overshadowing by the building envelopes on adjoining lots. This could be used as a guide for land owners to plan their dwelling design to maximise the use of this area as their primary area of private open space, without specifying a required location for a private open space area/s on the lot.
- Coordinate heights of walls and the location and dimensions of private open space to provide adequate solar access to the area of private open space
 - e.g. If the building envelopes limit the height of southern walls abutting a north-facing area designated as private open space to 3.0m high, the private open space area would require a width of 4.7m from the wall to meet standard A18 in Clause 54.*

- Specifying where private open space should be located on a lot should normally only be considered where there are particular site constraints or integrated design outcomes that necessitate such prescription.

54.06-1 Design detail objective

Objective

- Encourage design detail that respects the existing or preferred neighbourhood character.

Implementation suggestion

This objective and corresponding prescriptive standard addresses the detailed design of individual dwellings. The range of design matters encompassed by this objective and standard include façade articulation and detailing; window and door proportions; roof form; and verandahs, eaves and parapets.

As this level of design detail is not a matter addressed by the siting and design provisions of the Building Regulations, and is not a matter that will be assessed at the building permit stage for a single dwelling, it is recommended that this matter not be included as part of a building envelope agreement or restriction.

If the land subdivider or council wishes to achieve a particular detailed design outcome for a new subdivision, the requirements and restrictions to achieve this outcome should be embedded in a separate agreement or separate section of an agreement to that of the building envelope restrictions.

54.06-2 Front fences

Objective

Encourage front fence design that respects the existing or preferred neighbourhood character.

Design suggestions

- Take account of any change to the corresponding standard in the schedule to the residential zone, if applicable.
- The height and pattern of front fences can have a significant influence on streetscape and neighbourhood character. Consider using front fence heights to achieve the desired character outcome for the new subdivision.
- Consider the benefits of promoting interaction between public and private space through restricting front fence heights.
- Consider front fence height in conjunction with the 'Private open space' objective. If it is likely that areas of secluded private open space will be provided within the front setback of a lot (e.g. on small terrace lots), ensure that the front fence height that would normally apply through either the relevant planning scheme provision or Building Regulation will provide for an adequate level of seclusion and privacy for the secluded private open space. If not, consider specifying an alternative front fence height as part of the building envelope.

- When regulating front fence height as part of a building envelope for a lot on or within 9m of a street corner, take account of the regulation 4.27(1) 'Fences on street alignments' of the Building Regulations 1994. This regulation controls fence heights adjacent to street intersections to provide for appropriate sight lines. The building envelope as it relates to front fence heights should be designed to ensure that any fence constructed in accordance with the building envelope will also comply with this associated regulation.

4 Designing to other planning scheme provisions

4.1 Local policies

Planning schemes contain local policies which state the council's policies about issues or for geographic areas within the municipality. The local policies are intended to provide guidance on decision making. Local policies are contained in the Local Planning Policy Framework (LPPF) of planning schemes.

Local policies within planning schemes can include matters relating to the siting and design of residential development and neighbourhood character. For example, a local policy could set out the preferred character for a new residential area. A local policy could also set out preferred ways for building envelopes to respond to the objectives of clause 54.

The range of matters that may be addressed by local policies is broad. As a result, policy statements relevant to the design of building envelopes could be contained in a range of different local policies, such as policies for:

- Residential subdivision
- Residential development
- Neighbourhood character
- Specific geographic locations (e.g. suburbs, estates etc)
- Specific siting and design matters (e.g. car parking)

When designing building envelopes, relevant local policies should be taken into account and building envelopes should be designed to reflect the intended policy outcomes.

Local policies should assist in providing guidance and direction in relation to the appropriate local response to the generic state-wide objectives of clause 54.

4.2 Schedules to zones

Schedules to the residential zones provide a means of including local provisions in planning schemes which supplement the State standard residential provisions of clauses 54 and 55. The schedules allow variation of six (6) of the prescriptive standards of clauses 54 and 55, and the corresponding standards within the Building Regulations.

The residential zones to which a schedule can be applied are:

- Residential 1 Zone
- Residential 2 Zone
- Mixed Use Zone
- Township Zone

Where a schedule to a residential zone is applied, it applies to all land within that zone.

The six standards that can be varied by the schedule are:

- Street setback

- Building height
- Site coverage
- Side and rear setbacks
- Private open space; and
- Front fence height.

When designing building envelopes, relevant variations to the prescriptive standards should be taken into account and building envelopes should be designed to reflect the intended character outcomes of these varied standards.

4.3 Overlays

Overlays provide a level of planning control in addition to the zoning of the land. The requirements of any overlay apply in addition to the requirements of the zone. Neither is more important than the other. By their nature, however, overlays more specifically relate to particular local circumstances.

Only some overlays relate to landscape and built form matters, such as the Heritage Overlay. These overlays may address matters that are of relevance to the design of building envelopes. When designing building envelopes, the requirements of relevant overlays should be taken into account and building envelopes should be designed to reflect the intended outcomes of the overlay.

4.4 Clause 65 decision guidelines

Clause 65 of all planning schemes sets out the decision guidelines for planning permit applications. For all planning permit applications, the responsible authority (usually the council) must decide whether the proposal will produce acceptable outcomes in terms of the decision guidelines of this clause. When designing building envelopes, the ‘tests’ set out in these decision guidelines should be given due regard.