Corner built out with paving to kerb to slow turning vehicles and improve safety.

Corners normalised and raised crossing/threshold improves safety and increases space for seating and landscaping.

New footpath seating shade structures.

Install solar compacting public bins and investigate hydraulic commercial bin system.

Replace footpath paving. Provide extra seating and weather protection at bus stop.

Central median with continuous palm tree planting reinforces the change to a commercial boulevard and high pedestrian activity area, and helps to slow traffic.

Public art, seating and landscape should be designed as an entry feature into Bondi.

Relocate start of 40km/hr zone from Lamrock Ave to Sandridge St and demark with paved threshold.
Install solar compacting public bins and investigate hydraulic commercial bin system.

Move bus stop 40m north next to signalised crossing.

Replace footpath with new paving.

Raise existing crossing level with footpath.

Bike lane continued full length of Campbell Parade.

Intersection signalised (replacing mid-block pedestrian signals) and kerb extended to reduce footpath gradients, slow turning vehicles and provide extra space for bike racks and circulation around the park entry.
New footpath paving and street lighting. Consolidate signs, poles and parking meters to de-clutter footpath space.

Install solar compacting public bins and investigate hydraulic commercial bin system.

New footpath seating shade structures. Investigate significant new public art on this intersection.

Investigate formal pedestrian crossing south of Lamrock Avenue. If QED is closed in future consider signalising Lamrock Ave intersection.

Existing paving upgraded
Additional new paving
Raised threshold or pedestrian crossing if warranted
Existing/ new public seating
Footpath seating shade structure
Bus stop
Tree
Multi-function pole (indicative)
Solar compacting bin (indicative)
Hydraulic underground commercial bin (indicative)
Bike rack
Bike lane

Concept Plan 03
New public art and creative lighting in Roscoe Mall.

Replace tree guards around pines with circular bench seats.

New paving, public seating and street lighting. Consolidate signs, poles and parking meters to de-clutter footpath space.

New bus shelter and seating. Consider indenting bus bay or shifting bus stop to indented area.

Additional bus shelter and seating.

New footpath seating shade structures.

Install solar compacting public bins.

Street trees in kerbside tree pits.

Concept Plan 04
Street trees in kerbside tree pits.

New footpath seating shade structures.

New paving and public seating.

Install solar compacting public bins and investigate hydraulic commercial bin system.

Concept Plan 05
Intersection signalised to improve safety. Non-signalised pedestrian crossings are not permitted across dual travel lanes.

Footpath extended to reduce crossing distance. End section of Warners Ave either converted to one-way or closed. Investigate opportunity for rain garden. Develop concept for more active use of the triangle park eg. markets, bike hub, landscaping, pop-ups etc.

Tree planting in central median and kerbside tree pits. Second row of reverse angle parking added to enable parking reductions on beachfront.

Concept Plan 06
Intersection squared and raised crossing/threshold added. Opportunity for increased outdoor dining.

Single lane merge moved from Brighton Ave to Ramsgate Ave, enables wider footpath on south side and new central median with trees.

Intersection squared and with raised crossing/threshold added. Additional bike racks.
Intersection corners normalised and raised crossings/thresholds added to provide shorter crossing widths and extra space for seating and landscaping.

Existing crossing raised to slow traffic and improve safety.

Bus terminus layout, facilities and layover to be further reviewed. No loss of parking and loading zones.

Relocate start of 40km/hr zone from Warners Ave to Hastings Pde and demark with paved threshold.

Raised threshold to slow traffic.

Replace footpath with new paving. Resolve split level on western side.

Single lane merge moved from Brighton Ave to Ramsgate Ave, enables wider footpath on south side and new central median with trees.

Existing paving upgraded
Additional new paving
Raised threshold or pedestrian crossing if warranted
Existing/new public seating
Footpath seating shade structure
Bus stop
Tree
Multi-function pole (indicative)
Solar compacting bin (indicative)
Hydraulic underground commercial bin (indicative)
Bike rack
Bike lane

Concept Plan 08
Streetscape Elements
Intersection design

As a general rule, roadway space should be minimised and reclaimed as much as possible for pedestrians, seating and landscaping, making the area more attractive, safer and convenient for the community and visitors.

Geometry

Angled intersections should be squared as much as possible to reduce the width of pedestrian crossings, slow turning vehicles and improve visibility.

Kerb radii

Kerb radii should be minimised to slow turning vehicles, minimise crossing width, and reduce pedestrian crossing time.

Kerb extensions

Kerb extensions should be used to slow turning vehicles, narrow the roadway (having a traffic calming effect), reduce pedestrian crossing distance and crossing times and improve visibility. They also create more space for pedestrians, landscaping, bike racks, public art, seating, bins etc.

Paving

Footpath paving should be continuous to the kerb to make the corner spaces usable, and should maintain the same paving pattern around the corner to appear seamless.

Pedestrian crossings

Raised paved crossings should be used at non-signalised intersections to maintain a level walkway for pedestrians and slow vehicles. Where possible the crossing should have pedestrian priority as pictured above.
Footpath paving

Consistent new footpath paving is proposed to be installed the entire length of Campbell Parade on both sides. The existing paving comprises varying styles and quality with many areas in desperate need of replacement, and the areas in good condition appear somewhat bland and dated, not befitting of a world-class destination.

New paving will transform the streetscape, it will tie together the other design elements and reinforce the boulevard identity from South Bondi to North Bondi.

A light cream coloured paver in larger format (minimum 600x400mm) is proposed, which was strongly supported by residents and businesses in the community consultation. The colour tone should be more neutral for a classic timeless look, rather than a strong colour, and should have a pattern or aggregate to help mask any stains. A standard integral kerb with pigmented concrete is proposed to match the paver.

The paver and kerb specifications are to be determined by Council's design team through a competitive procurement process having regard to aesthetics, slip resistance, compressive strength, resistance to staining and salt, porosity, weatherability, supply availability and cost. Once determined, the specifications are to be included in the Public Domain Technical Manual as the standard for Campbell Parade.

Design and installation requires attention to detail such as pattern consistency, clean joints and paved utility lids (consolidated where possible), and should be complemented with a rigorous maintenance regime to keep the footpath in premium condition.
Footpath shade structures

Footpath dining is an important component of the commercial streetscape adding visual interest and creating active street life. The existing footpath shade structures vary in quality and style, with most showing signs of age, rust and dirt. A key driver of the streetscape upgrade has been the desire to replace the structures with a consistent design that is:

- Unique to Bondi
- Complements the coastal character
- Open, light and maintains views to the beach
- Provides protection from the wind, rain and sun while recognising this is an outdoor space
- Avoids enclosure or obstruction of the footpath
- Durable and high quality
- Maintains a minimum 4m wide clear walkway area.

The proposed design is a modern take on the conventional umbrella structure, with slender central columns branching into a cantilevered flowing curved roof form. The design is distinctive yet subtle, and complements both the inter-war and modern architecture that exists on Campbell Parade. The design is also modular so can be arranged in different sizes to fit various locations along Campbell Parade while creating rhythm along the streetscape.

The design uses white steel tubing with translucent white nylon roof material and has integrated radiant heaters and adjustable ambient up-lighting. Electricity supply will be provided underground and metered separately. The roofs overhang 0.6m beyond seating areas on all four sides to ensure rain runoff does not impact users.

A 1.5m tall frameless glass balustrade with stainless steel feet is proposed along the street edge. For sections longer than 3 modules a 2m gap will be provided in the balustrade and seating areas to provide pedestrian access. The glass is to be kept free from signage and advertising, maintaining clear sight lines to the beach. Freestanding glass signage panels approximately 1.5m tall x 0.4m wide will set in the footpath adjacent to the walkway to identify the business leasing each seating area. Planter boxes will be placed at each end of the structures to add greenery and to demark the space.

Use of the space within the confines of the shade structures will generally be for restaurant/cafe seating. This should comprise high quality furniture and encourage individual character and diversity in colour, form and layout, for example benches or couches in addition to tables and chairs. If any spaces become vacant, at the discretion of Council the shade structures may also be used for public seating, entertainment, exhibitions and other uses that add to street life.

The new design is to be trialled as part of Footpath Seating Pilot Project between Curlewis St and Beach Rd, and after 6-12 months of use will be evaluated for functionality, aesthetics, durability and maintenance prior to being considered for broader use. At this time policy, leasing and commercial aspects will also be reviewed.
Proposed public seating areas
Proposed footpath shade structures
Proposed new sheltered bus stops
Public seating

Public seating should offer beautiful sculptural elements that complement the space, are comfortable, durable and functional.

The majority of the public seating within the project area comprises a series of 27 public concrete bench seats with mosaic tile artworks located between Beach Road and Lamrock Avenue. Commissioned in 1997, the seats are in varying condition from poor to good and require substantial maintenance.

Council has also recently installed high quality custom-designed concrete and timber benches on the eastern side of Campbell Parade as part of the Bondi Park upgrades.

The seating survey found that the mosaic bench seats were rarely more than 25% occupied, suggesting there is a sufficient number of seats in this core area. An undersupply of seating was observed at bus stops on Campbell Parade near Notts Avenue and Rosoe Mall. The concept plan shows new sheltered bus stops at these two locations, and almost all the existing public seating areas retained.

When the footpaths are upgraded, some or all of the mosaic bench seats can be retained and restored with significant investment, and there is also the opportunity to replace the mosaics with new bench seats. As part of the Footpath Seating Pilot Project it has been agreed that the central mosaic seats are to be restored and the two benches at each end of the block which are in poor condition are to be removed and replaced with new public seating.

The design of this public seating combines the circular form of the mosaic seats with the timber used in the Bondi Park benches, but uses a steel frame to create the more open, lightweight feel desired for Campbell Parade. The new public seats will be evaluated for functionality, aesthetics, durability and maintenance prior to being considered for broader use. The Public Domain Technical Manual will then be updated with the recommended seat design for Campbell Parade.

The decision whether to retain or replace the mosaic seats in other areas will be determined at detailed design stage and involves a condition assessment, liaison with the artist and referral to the Public Art Committee in accordance with the deaccessioning guidelines.
Landscape

Formally arranged tall palm trees in the central median create a strong boulevard effect in the commercial core and have become part of the landscape character of Campbell Parade. The concept proposes a continuation of the palm trees in central median to extend the boulevard character the full length of Campbell Parade. The slender form of the palms make them suitable for the limited spaces and minimises any impacts to beach views from upper levels of buildings, and they are suitable for the harsh coastal environment.

There is an almost complete lack of street trees and greenery along the footpath resulting in hotter, more exposed spaces that do not invite pedestrians to stay. The concept addresses this with trees located in kerb extensions and between parking bays to provide shade at the footpath. Having trees at the road edge also creates the appearance of a narrower roadway which has the effect of slowing traffic speeds.

In addition to trees, raingardens and planted areas should be incorporated in kerb extensions to minimise the extent of hard surfaces (for example the intersection of Warners Avenue and Campbell Parade). The central median, tree pits and raingardens are proposed to be planted with a native groundcover/shrub layer that provides ground-level greenery with ecological value.

At detailed design stage the design of tree and garden locations will be refined in order to minimise impacts to views or parking, and the native shrub species will be selected. The design may use either kerbed tree pits or smaller tree grates/swales that are flush with the road surface in order to fit in smaller spaces. A feasibility analysis should also be undertaken to determine the appropriate water sensitive urban design solutions, including the capture and filtering of stormwater in tree pits and raingardens, and the use of underground screening and permeable pipe systems for stormwater treatment at appropriate locations.
Lighting

Good lighting is essential to help a street reach its evening potential. Night time activity on mainstreets is good for business, for socialising, and for safety. Lighting for pedestrian areas should be warm and create ambience using elegant lighting fixtures, as well as integrating lighting into seating, buildings and public art. Lighting can also be used to enhance building facades and introduce new colours.

Council has developed a concept to replace all streetlighting assets (both Ausgrid and Council-owned) with a Council-owned conduit and multi-function light pole (MFP) network to reduce streetlighting energy use, greenhouse gas emissions and achieve cost savings.

MFPs accommodate multiple elements including LED luminaires, traffic lights, signs, banners, CCTV and power supply, and can greatly reduce the number of poles and clutter that exists on the footpaths.

The Campbell Parade Streetscape Upgrade incorporates the MFP concept in order to minimise disruptions and avoid damaging or having to re-install expensive capital works later, and will be considered further at detailed design stage.

The new shade structures include integrated ambient up-lighting and radiant heaters which will be metered independently, and are envisaged to be run with a user-pays system. The details of the electricity connection, payment and management is being investigated as part of the Footpath Seating Pilot Project and will inform future construction of the shade structures.

At detailed design stage, the recommendations of the Creative Lighting Strategy should also be incorporated to identify opportunities for lighting that adds to the atmosphere and appeal of the streetscape, feature lighting of trees and/or seats, playful coloured lighting and wayfinding lights.

Creative lighting in street furniture.
Indicative multi-function poles.
Waste management

Sustainable Waverley completed an extensive Bondi Beach Waste Management Study in 2015 to identify the optimal waste management systems for Bondi Beach.

Solar compacting bins were identified as the best short term solution as they have relatively low capital costs and require minimal site preparation works. The bins compact waste to a ratio of 5:1 also contain smart technology to provide alerts when they require collection. They will improve the efficiency of Council collection service, reduce the likelihood of overflow, support public place recycling and will improve the amenity of the beach.

The solar compacting bins are currently being trialled by Council and assuming successful, are intended to be implemented further. Indicative locations have been shown on the concept plan, which are subject to refinement at detailed design stage.

Solar compacting bins are intended for public waste and a key issue still exists with commercial bins being left on the footpath obstructing pedestrians and causing amenity and odour impacts on the street. As many commercial tenants have no laneway access for bin collection, either hydraulic or pneumatic underground bin systems should be considered for Campbell Parade.

Hydraulic bins use an underground platform for storing bins, which rises to ground-level during collection, whereas pneumatic systems transport waste underground via vacuum system to a central collection point. Hydraulic systems can be installed progressively and more cheaply, however pneumatic systems can deliver greater benefits in terms of capacity, lower ongoing costs and less impact of heavy vehicles on the road network.

Hydraulic bins have been shown indicatively on the concept, but require further evaluation at detailed design stage including the governance system for ownership and maintenance, and comparison against a pneumatic system.