

Attachment 1 – Index of address of SSP Study requirements

The location in which each of the study requirements are addressed within this report are summarised in **Table 27** below.

Table 27 Study requirements

Ref	Study requirement	SSP Study Reference	Supporting study
Public domain, place and urban design			
1.1	Prepare a Place Strategy that guides future planning and approval processes, identifies how development may facilitate the future character of each sub-precinct and any implementation strategies.	Section 9.1.2	Place Strategy (Attachment 2)
1.2	Prepare an Urban Design Framework for the precinct that: <ul style="list-style-type: none"> Includes a detailed site and context analysis that identifies strategic context, opportunities and constraints and key issues to be considered; Includes a set of urban design principles that underpin the proposed development; Includes a detailed master plan that integrates all other urban design related study requirements and demonstrates that the proposed Gross Floor Area (GFA) to be included in the planning framework can achieve high quality place outcomes; and Includes a benchmarking assessment of the proposed development against international best practice precedent studies. 	Section 8.5 Section 9.1.3	Urban Design Framework (Attachment 3)
1.3	Prepare a Public Domain Strategy that guides future planning and approval processes and seeks to achieve high quality public domain outcomes that: <ul style="list-style-type: none"> Includes a vision statement and a series of goals to achieve the vision; Includes a separate chapter focusing specifically on public space, specifically what currently exists, what will be upgraded and what new public space will be delivered; Includes a detailed site and context analysis that identifies strategic context, opportunities and constraints and key issues to be considered; Includes a movement plan setting out the proposed movement corridors and connectivity network throughout the precinct, the types of movements to be captured through the precinct (i.e. walking, cycling, vehicles, machinery, employees etc. during a 24-hour period). How squares or plazas could play a role in movement and include emphasis 	Section 9.1.3	Public Domain Strategy (Attachment 4)

Ref	Study requirement	SSP Study Reference	Supporting study
	<p>on creating strong pedestrian corridors linking outside areas to Central Station’s entrances and exit points;</p> <ul style="list-style-type: none"> • Includes a landscape master plan for the precinct locating public space (open space, plazas, squares) that have been derived from site analysis, benchmarking assessment and urban design principles. The master plan is to include (but not limited to) public space connections, deep soils zones, urban canopy outcomes and targets, Water Sensitive Urban Design principles; • Includes a benchmarking assessment of the proposed development against international best practice precedent studies for open space design in similar high dwelling density environments. The assessment should also identify the specific initiatives used by case study and identify both the positive and negatives effects that occurred during the budget, design and construction stages to ensure that it can be translated to an Australian setting; • Identifies wind comfort criteria for the entire precinct and all adjacent areas affected by the proposed development; • Includes a shade study to ensure comfort and usability of public space; • Includes a high-level safety and security strategy that outlines how potential future crime and safety risks in relation to the development will be addressed. Strong emphasis should be placed on developing actions in the strategy that address the most vulnerable people who use Central Station i.e. women and girls, people with disabilities, the homeless, schoolchildren etc, and enabling safe, 24/7 use of the precinct. The Strategy should have regard to Crime Prevention Through Environmental Design (CPTED) guidelines and integrate closely with other studies; • Includes a Heritage Interpretation strategy framework for the precinct identifying key themes, social values, interpretive opportunities, measures and locations. The strategy should include actions to preserve heritage items of value identified; and • Is derived from cooperative work with the City of Sydney on the development of the future square given affected land is owned by both state and local governments. 		

Ref	Study requirement	SSP Study Reference	Supporting study
1.4	Prepare a high-level Public Art Strategy that identifies opportunities and an overarching conceptual approach for the public art within the Precinct in future stages.	Section 9.11	Public Art Strategy (Attachment 6)
1.5	Prepare an Indicative Staging Strategy that identifies how staging may occur; includes detail of how the delivery of public domain will be considered and coordinated across individual development sites and considers construction staging.	Section 9.13	Place Strategy (Attachment 2) Urban Design Framework (Attachment 3)
1.6	Provide physical and 3D CAD models to fit into the City of Sydney's physical and 3D CAD model. Include animations and photomontages of key parts of the proposal from eye level positions in the public domain.		
1.7	Prepare a Design Excellence Strategy for the precinct.	Section 9.2.2	Design Excellence Strategy (Attachment 7)
1.8	Central Precinct Design Review Panel Undertake an independent design review process led by the GANSW to advise on design work in progress. Design review sessions are to commence as soon as possible after the issue of these Study Requirements and held regularly to: <ul style="list-style-type: none"> Review key stages of the process; and Update the panel on discussions with NSW Heritage Council and the Place, Design and Public Spaces (PDPS) Group within DPIE. Prepare a Design Review Report to include all design advice letters and a record outlining how the issues raised by the panel have been addressed.	Section 9.19	Urban Design Framework (Attachment 3)
1.9	Prepare a Designing with Country Framework, in consultation with the GANSW. to embed Country into the renewal of Central SSP. The Designing with Country narratives and themes that emerge from the Framework must be interwoven throughout the Central SSP planning package.	Section 9.12	Connecting with Country Framework (Attachment 8)
Planning			
2.1	Prepare a Planning Report for the precinct that: <ul style="list-style-type: none"> Identifies the existing planning framework, applicable strategic plans, key planning issues and relevant background; Assesses the proposed planning framework (see study requirement 2.2 below) against relevant State and local strategic plans, strategies and policies; Outlines the vision and priorities for the Precinct; Considers the State and regional planning significance of the precinct; 	Section 8.6 Section 9.2	This report is the Planning Report Assessment against the CSPS (Attachment 10)

Ref	Study requirement	SSP Study Reference	Supporting study
	<ul style="list-style-type: none"> • Responds to the study requirements; • Explains and justifies the proposed approach to the master plan, planning controls, sub-precinct planning, development standards (height, FSR, heritage etc); • Identifies and addresses the implications of any proposed land uses; • Considers a range of initiatives to address affordable rental housing; • Confirms or updates the vision for the precinct and each-sub-precinct included in the Strategic Framework; and • Summarises the key outcomes of the various studies undertaken and how these have informed the planning controls for the precinct. 		
2.2	<p>Prepare draft planning controls for the precinct which includes zoning, maximum building heights, FSR, and car parking to be enacted by a SEPP amendment. The draft controls are to be described in the Planning Report and in an Explanation of Intended Effect (EIE). The draft planning controls must be supported by documentation demonstrating the degree of consistency of the proposal with the approach outlined in the Central Sydney Planning Strategy and the extent to which the planning framework may need to be amended for the Central Precinct. The documentation should justify any proposed deviations from the approach outlined in the Central Sydney Planning Strategy.</p>	Section 8.6	Explanation of Intended Effect (Attachment 9)
2.3	<p>Prepare a draft Development Control Plan or Design Guideline, including appropriate development controls to inform future development of the precinct, including: public domain, street hierarchy and typologies, connectivity, car parking, accessibility, building footprints, development heights, street frontage, setbacks, building typologies, open space and public domain, biodiversity, waste management, sun access, public art, sustainability, heritage and heritage interpretation.</p> <p>An alternative approach to delivering more detailed planning in a draft Development Control Plan or Design Guideline may be considered with agreement from the Central Project Working Group.</p>	Section 8.6.2	Design Guide (Attachment 11)
2.3	<p>Prepare a Design Excellence Strategy that:</p> <ul style="list-style-type: none"> • Ensures design excellence is achieved for future development in the precinct; and 		Design Excellence Strategy (Attachment 7)

Ref	Study requirement	SSP Study Reference	Supporting study
	<ul style="list-style-type: none"> Is consistent with the relevant competitive design policy of the consent authority. 		
Amenity			
3.1	<p>Prepare a wind study that undertakes an analysis of land within the Precinct and in affected adjacent areas including surrounding streets, Railway Square, Prince Alfred Park and Belmore Park, particularly the future City's Third Square – the area including the current railway Square, Lee Street and the Western Forecourt. The study must examine wind speeds in relation to the standards for wind safety, wind comfort including walking, standing and sitting, as set out in the Draft Central Sydney Planning Strategy and related documents. The study must examine wind speeds in relation to criteria set out in Study Requirement 1. The wind study must demonstrate that the proposed scale of redevelopment of the Precinct is able to be undertaken in a manner that ensures streets, public places and walking spaces within and surrounding the precinct have wind conditions that are safe and comfortable for walking and where appropriate have conditions that are comfortable for sitting or standing and will not negatively affect any areas that do not currently meet these conditions. The study must compare proposed wind conditions to other areas in Central Sydney and propose wind development standards to be applied to subsequent development stages.</p> <p>The wind study must be supported by wind modelling which may include computer modelling and/or wind tunnel testing. The selected approach must be appropriately justified.</p>	Section 9.3.3	Wind Study (Attachment 12)
3.2	<p>Prepare a noise and vibration assessment for the proposal that:</p> <ul style="list-style-type: none"> Identifies the existing situation, both within the Precinct and in affected adjacent areas, showing constraints, opportunities and key issues and maps any sensitive receptors; Assesses the likely noise and vibration impacts on future development, particularly in relation to over station development; Models and assesses the efficacy of the likely future noise, and vibration measures to minimise negative impacts on comfort and to minimise harm to people or property; 	Section 9.3.4	Noise and Vibration Study (Attachment 13)

Ref	Study requirement	SSP Study Reference	Supporting study
	<ul style="list-style-type: none"> Ensures there that the proposal does not impact the stability of existing rail related structures and infrastructure; and Recommends appropriate noise, vibration and pollution development standards to be applied to subsequent development stages. 		
3.3	<p>Prepare a pollution assessment for the proposal that identifies and assesses any potential pollution impacts resulting from the proposal including but not limited to water, air and light pollution and which includes an analysis of the potential impact on adjoining uses and recommends development standards to be applied to subsequent development stages.</p>	Section 9.3.5	Pollution Study (Attachment 14)
3.4	<p>Prepare a view and visual assessment (VIA) for the Precinct that assesses visual impact as a result of the proposal.</p> <p>The assessment must review and identify important views to be protected in the context of the changing CBD environment and present an analysis of views in relation to relevant parts of the Central Precinct Strategic Framework, the Draft Central Sydney Planning Strategy and the Government’s aspirations for the Sydney Innovation and Technology corridor.</p> <p>The assessment must describe and assess visual impact of the proposal using a clear and consistent methodology adopted from best practice national or international methodology. It should determine the level of visual impact against criteria such as sensitivity and magnitude.</p> <p>Where visual impacts are identified, an assessment against the principles of visual amenity should be undertaken and should recommend mitigation measures to reduce visual impact, where appropriate. Any visualisations relied upon by the VIA must meet Land and Environment Court policy or other relevant quality assurance requirements.</p> <p>The study must propose visual impact development standards to be applied to subsequent development stages.</p>	Section 9.3.6	Visual Impact Study (Attachment 15)
3.5	<p>Prepare a daylight, sky view, solar access analysis for areas within the Precinct and in affected adjacent areas. The analysis should examine daylight, sky view and solar access using the City of Sydney Council’s preferred methodology or an alternate approach from an accepted and agreed national or international standard. The analysis must take into consideration the</p>	Section 9.3.1 Section 9.3.2	Urban Design Framework (Attachment 3)

Ref	Study requirement	SSP Study Reference	Supporting study
	<p>Central Precinct Strategic Framework and the Draft Central Sydney Planning Strategy, and must demonstrate that redevelopment of the Precinct is able to be undertaken in a manner that ensures:</p> <ul style="list-style-type: none"> • Sun access protection to Prince Alfred Park is consistent with the Central Sydney Planning Strategy; • Other areas of public domain and open space (i.e. the Western Forecourt and the future City's Third Square) receive an appropriate level of sun access and solar amenity for their intended purpose; and • Areas within and adjacent to the precinct achieve an acceptable level of daylight and sky view. • The study must propose daylight, sky view and solar access development standards to be applied to subsequent development stages. 		
Population and demographics			
4.1	<p>Prepare a Population and Demographics Study that:</p> <ul style="list-style-type: none"> • Identifies the existing situation (the baseline), including constraints, opportunities and key issues; • Outlines the likely impacts of the proposal in relation to population and demographics; and • Informs and supports the preparation of the proposed planning framework including any recommended planning controls or DCP/Design Guideline provisions. 	Section 9.4	Population and Demographics Study (Attachment 16)
Heritage			
5.1	<p>Prepare an Aboriginal Cultural Heritage Study for the Precinct that:</p> <ul style="list-style-type: none"> • Undertakes an assessment of Aboriginal cultural heritage within or near the site including archaeology, culture, country, and including intangible and social heritage, using existing resources or new research as necessary; • Includes a Statement of Heritage Impact to assess the likely impact of the precinct redevelopment on this identified cultural heritage; • Provides recommendations to guide the management of Aboriginal heritage significance, in the context of the precinct development, and taking into account the findings of the Study, any items of significance, the likely impact on Aboriginal heritage as a result of the proposal and consultation; 	Section 9.5.2	Aboriginal Cultural Heritage Study (Attachment 17)

Ref	Study requirement	SSP Study Reference	Supporting study
	<ul style="list-style-type: none"> Includes results of consultation with relevant Aboriginal stakeholders and knowledge holders for the precinct and surrounds; and Informs and supports the preparation of the precinct planning framework (including any DCP) and any management strategies. 		
5.2	<p>Prepare a Non-Aboriginal Heritage Study for the Precinct that:</p> <ul style="list-style-type: none"> Using existing research and reports, compile a Non-Aboriginal Heritage Study of the precinct, identifying all heritage items (state, local and potential) and conservation areas within and near the site, including built heritage, landscapes and archaeology. It should include detailed mapping of these items and an assessment of why the items and site(s) are of heritage significance. Includes a precinct wide Statement of Heritage Impact (SoHI) to assess the impact of the precinct redevelopment with recommendations for the management of the cultural heritage of the site and mitigations measures to minimise heritage impact; Includes a comprehensive whole of site archaeological plan and framework strategy to capture and collate all recent archaeological investigations and guide the management of potential archaeological resources; Provides recommendations to guide future development or planning of the site with specific consideration to the bulk, height and scale of the existing significant elements of the site, including its setting, context, streetscape and visual and physical character of the locality, surrounding conservation areas and heritage items. This should be integrated with the Urban Design Plan, and draft Development Control Plan or Design Guidelines; Integrates with the view and visual assessment and seeks to preserve and enhance key views to and from heritage buildings (including visual connection between items). The visual analysis should also consider how the proposal impacts on the wider visual setting of the site including the adjacent heritage conservation areas; and Informs and supports preparation of the planning framework provisions for the precinct (including recommended development control provisions for any future DCP). 	Section 9.5.1	Non-Aboriginal Heritage Study (Attachment 18)

Ref	Study requirement	SSP Study Reference	Supporting study
5.3	Update the existing Conservation Management Plan for the Precinct (Central Station Conservation Management Plan - June 2013 prepared by NSW Transport RailCorp).		Conservation Management Plan (Attachment 20)
5.4	Prepare a detailed Heritage Interpretation Strategy for the Precinct that: <ul style="list-style-type: none"> • Provides the strategic direction for heritage interpretation across the entire precinct having regard to the precinct’s historic significance (particularly its social, intangible, industrial and engineering values) and regard to the place’s relationship with nearby heritage items, as an integral component of the • development of detailed design; • Recognises and celebrates Aboriginal connection to the precinct and its spiritual, intangible and cultural values to Aboriginal people and addresses the full story of the place (i.e. landscape through the eyes of indigenous inhabitants); • Accounts for existing and planned (where possible) interpretive approaches as part of other projects within and in the vicinity of the precinct; and • Integrates with broader design responses where relevant such design elements (form and fabric), public art, landscaping and cultural design principles. 	Section 9.5.3	Heritage Interpretation Strategy (Attachment 21)
Social sustainability and infrastructure			
6.1	Prepare a Social Infrastructure Study that: <ul style="list-style-type: none"> • Defines an appropriate study area for the purposes of the assessment, incorporating the precinct and broader catchment/s as appropriate to assessment of particular infrastructure types; • Identifies the existing situation (the baseline), including constraints, opportunities and key issues; • Outlines the likely impacts and social infrastructure requirements resulting from the proposal; • Assesses needs and/or demands of the existing and future population and capacity and/or supply of the service in the precinct; • Defines the objectives, strategies, timeframes, implementation, performance indicators, and responsibilities for social and health services; • Identifies and assesses mechanisms available to maximise provision of Affordable Rental Housing, noting GCC targets; and • Informs and supports the preparation of the proposed planning framework including any 	Section 9.6.1 Section 9.6.2	Social Infrastructure and Health Impact Assessment (Attachment 22)

Ref	Study requirement	SSP Study Reference	Supporting study
	recommended planning controls or DCP/Design Guideline provisions that would deliver an appropriate sustainability outcome.		
6.2	Prepare a preliminary Equity-Focused Health Impact Assessment that: <ul style="list-style-type: none"> • Outlines the likely impacts on health and health infrastructure, including the likely impacts of the proposal on the health of existing community, future population and neighbouring community, including an assessment of the severity and likelihood of identified positive and negative impacts; • Assesses the distribution of impacts; and • Recommends mitigation measures. 	Section 9.6.3	Social Infrastructure and Health Impact Assessment (Attachment 22)
Transport			
7.1	Prepare a comprehensive transport strategy and transport impact assessment for the precinct that: <ul style="list-style-type: none"> • Identifies the existing situation, including constraints opportunities and key issues; • Reviews the trip generating potential for all proposed modes and purposes, develops mode share targets and measures to achieve these targets; • Provides an understanding of the travel behaviours and patterns (all modes) of future workers, visitors and residents of the proposal through benchmarking, forecast modelling tools and other sources of evidence; • Identifies and assesses the impacts resulting from the proposal with an appropriate level of pedestrian and traffic analysis; • Provides details of the proposed transport strategy including, any necessary transport infrastructure and servicing improvements; the proposed approach to pedestrian and bicycle facilities, car parking; and access and egress requirements; and • Informs and supports the preparation of the proposed planning framework including any recommended planning controls or DCP/Design Guideline provisions that would deliver an appropriate planning outcome. 	Section 9.7	Transport Study (Attachment 23)

Ref	Study requirement	SSP Study Reference	Supporting study
Environmental sustainability, climate change and waste management			
8.1	<p>Prepare an Environmental Sustainability Study for the Precinct that:</p> <ul style="list-style-type: none"> • Identifies the existing situation, including constraints, opportunities and key issues; • Outlines the likely impacts of the proposal in relation to energy use, greenhouse gas emissions, water use, waste water, solid waste and climate change resilience; • Provides detail of proposed sustainability principles and how they will be incorporated into the proposal; • Includes an integrated water cycle management strategy; • Includes an integrated waste management strategy that maximises resource recovery; • Includes measures to address the impact of climate change including urban heat and extreme weather events; • Informs and supports the preparation of the proposed planning framework including any recommended planning controls or DCP/Design Guideline provisions that would deliver an appropriate sustainability outcome; and • Identify appropriate sustainability benchmarks for each development type within the precinct. 	Section 9.8	Environmental Sustainability Study (Attachment 24)
Green infrastructure, ecology, urban forest and greening			
9.1	<p>Prepare a Green Infrastructure Study for the Precinct that:</p> <ul style="list-style-type: none"> • Identifies the existing situation, including constraints, opportunities and key issues; • Outlines the likely impacts of the proposal in relation to climate change, heat impacts and community health needs (i.e. mental and physical health); • Provides detail of proposed green infrastructure principles and how they will be incorporated into the proposal (consistent with Greener Places); • Includes an urban forest and greening strategy – which outlines the percentage of greening and canopy cover across each land classification (e.g. streets, parks, private land) and private property zoning type; • Includes measures to address storm water retention management and opportunities for beneficial reuse; • Includes an Ecological Assessment for the Precinct; and 	Section 9.9	Green Infrastructure Study (Attachment 25)

Ref	Study requirement	SSP Study Reference	Supporting study
	<ul style="list-style-type: none"> Informs and supports the preparation of the proposed planning framework including any recommended planning controls or DCP/Design Guideline provisions that would deliver an appropriate green infrastructure and sustainability outcome. 		
Utilities servicing			
10.1	Prepare a utilities and infrastructure servicing report that: <ul style="list-style-type: none"> Identifies the existing situation, including constraints, opportunities, key issues and existing network capacity; Assesses the capacity of the relevant service infrastructure networks to service the Precinct, impacts on the networks resulting from the proposal and identify any augmentation and servicing options proposed to support the proposal; Assesses the implications of any proposed land use for local and regional infrastructure and service delivery; and Informs and supports the preparation of the proposed planning framework including any recommended planning controls or DCP/Design Guideline. 	Section 9.14	Utilities and Infrastructure Servicing Report (Attachment 26)
Infrastructure			
11.1	Prepare a local infrastructure schedule that: <ul style="list-style-type: none"> Identifies the local infrastructure required to meet the needs of the proposal; and Identifies the proposed contributions framework to deliver local infrastructure. 	Section 9.15	Contained within this report at Section 9.15
11.2	Prepare a state and regional infrastructure schedule that: <ul style="list-style-type: none"> Identifies the state infrastructure required to meet the needs of the proposal; and Identifies the proposed contributions framework to deliver state infrastructure. 	Section 9.15	Contained within this report at Section 9.15)

Ref	Study requirement	SSP Study Reference	Supporting study
Economic productivity and job creation			
12.1	<p>Prepare an economic assessment of the proposal that:</p> <ul style="list-style-type: none"> Identifies the existing situation, including constraints, opportunities and key issues; Outlines the likely impacts of the proposal including economic benefits and job creation (particularly in relation to Tech Central); and Informs and supports the preparation of the proposed planning framework including any recommended planning controls or DCP/Design Guideline provisions. 	Section 9.16	Economic Productivity and Job Creation Study (Attachment 27)
12.2	<p>Prepare a high-level development feasibility study that outlines the market demand and demonstrates that the new planning controls will result in feasible development.</p>	Section 9.16	Economic Productivity and Job Creation Study (Attachment 27)
Water quality, flooding and stormwater			
13.1	<p>Prepare a water quality, flooding and storm water report that:</p> <ul style="list-style-type: none"> Identifies the existing situation, including constraints, opportunities, key issues and existing network capacity; Assesses the potential impacts of the proposal on the hydrology and hydrogeology of the precinct and adjoining areas; Includes a concept stormwater management plan outlining the general stormwater management measures for the proposal; Includes a flood risk assessment identifying flooding behaviours and flood impacts resulting from the proposal and providing recommendations for appropriate flood planning levels; Provides concept level details of drainage to address stormwater flows on the precinct; Informs and supports the preparation of the proposed planning framework including any recommended planning controls or DCP/Design Guideline; and Provides an analysis of the proposal measured as % difference in flooding shown in flood depth contours and hazard maps. 	Section 9.17	Water Quality, Flooding and Stormwater Report (Attachment 28)
Aeronautical			
14.1	<p>Prepare an Aeronautical Study that:</p> <ul style="list-style-type: none"> Identifies constraints associated with the operations of Sydney Airport; Advises on measures, if necessary, to ensure the precinct does not have an adverse impact on the operations of Sydney Airport; and Certifies that, subject to any recommended measures, the proposal will not have an 	Section 9.17	Aeronautical Study (Attachment 29)

Ref	Study requirement	SSP Study Reference	Supporting study
	adverse impact on the operations of Sydney Airport		
Consultation			
15.1	Prepare a consultation strategy that: <ul style="list-style-type: none"> • Outlines the proposed community consultation strategy to undertake an appropriate and justified level of consultation with the public, the City of Sydney, other relevant State and Federal government agencies, non-government groups and community stakeholders. 	Section 9.19	Consultation Strategy (Attachment 30) Aboriginal Engagement Strategy (Attachment 31)
15.2	Provide a consultation outcomes report that: <ul style="list-style-type: none"> • Includes evidence of consultation (including letters, minutes of meetings, charrette/drop in event summaries and formal advice) and provide a summary of and outline the general outcomes of early consultation and demonstrate how the outcomes have been incorporated into the proposal. 	Section 9.19	Consultation Outcomes Report (Attachment 32)



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