

Redfern Station Upgrade

Gateway Review Planning Session

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BACKGROUND

- Redfern Station is approximately 2km south of the Sydney CBD
- Over 41,000 people access the station on any given weekday (2009 data) – making it the 7th busiest station on the network.
- Current layout is 10 (Platforms 1-10) above ground platforms and 2 (Platforms 11 and 12) underground platforms
- Platform and stairs subject to heavy congestion during peak hours as this is a major interchange station.
- Station does not comply with *Disability Discrimination Act* (DDA) requirements
- Underground Platforms are non compliant for Fire & Life Safety (only one exit point).



Redfern Station Locality

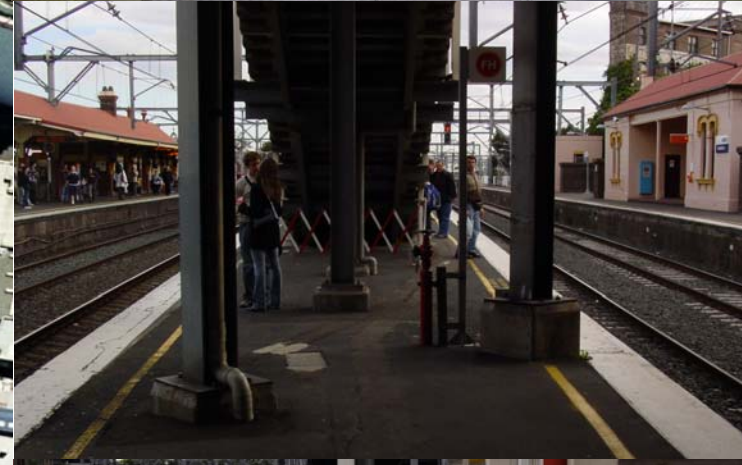
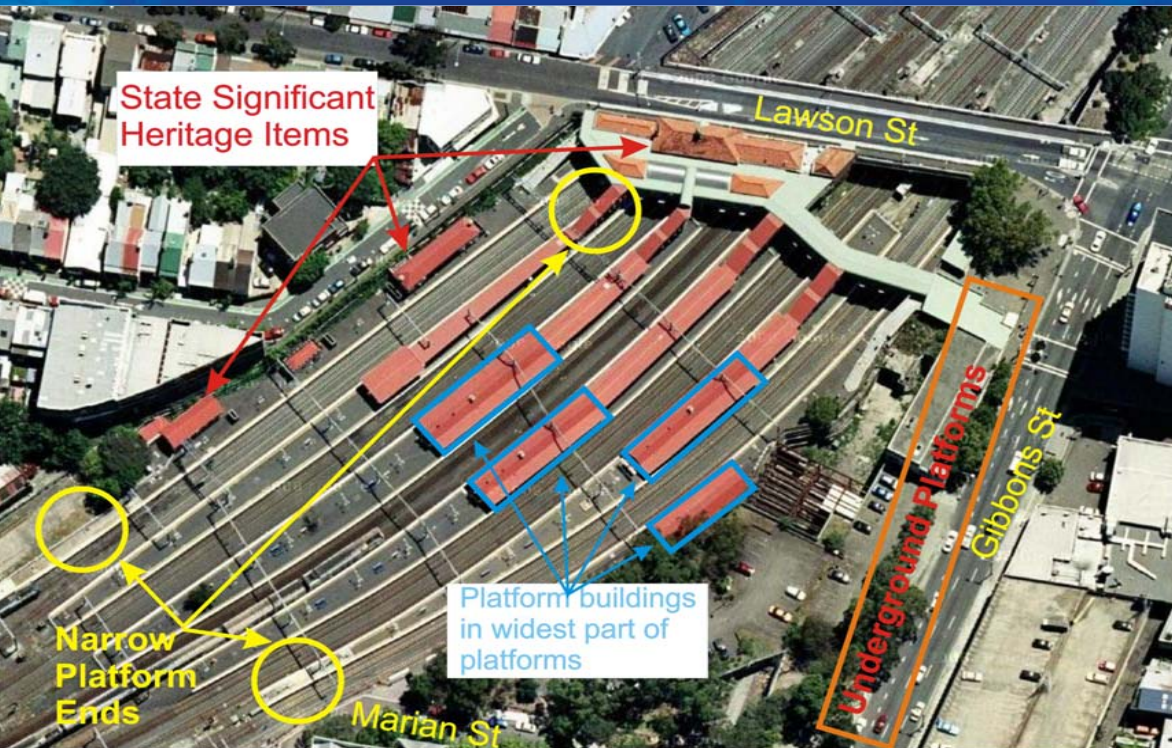


EXISTING – Station Entry (Lawson & Gibbons St)



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EXISTING – Stairs & Platform



DRIVERS

PRIMARY DRIVERS

- Congestion & Capacity
- Compliance with Commonwealth *Disability Discrimination Act (DDA)* and *Disability Standards for Accessible Public Transport (DSAPT 2002)*
- Fire & Life Safety

OTHER DRIVERS FOR CHANGE

- Facilitate increased development (commercial, retail, education and residential) within the Redfern Station Catchment
- Provide for better transport interchange, linking rail, bus and potential new rail transport services planned or proposed for the Redfern Precinct.
- The need to provide appropriate pedestrian links with the station precinct to major locations such as Australian Technology Park (ATP), North Eveleigh, Sydney University and Redfern Town Centre.
- Adaptive re-use and preservation of key station heritage listed assets should these assets be retained.
- Improve safety and security at Redfern Station, especially at night.



HISTORY

- Redfern Station opened in 1855
- ~1996 second station entrance at western (country end) demolished
- 1995/6 planning began on the upgrade of the station
- 2004 Lawson St entrance had to be upgraded due to fire associated with Redfern riots
- December 2004 – Redfern Waterloo Authority created
- Announcement at Built Environment Ministerial Advisory Committee meeting in November 2009 that works will begin in 2011/12 financial year (subject to funding).
- March 2010 – preferred option identified and costed.



BUSINESS JUSTIFICATION

- **Accessibility improvements are required at Redfern Station due to:**
 - DDA compliance
 - Existing patronage (7th busiest station)
 - Rail:Rail interchange at station
 - Interface with new rail transport services at Redfern and other public transport modes (buses, taxis etc)
 - improve station amenity and customer satisfaction
- **Capacity increase of the station to:**
 - address congestion issues on stairs and platforms, and improve passenger flows on the platform
 - minimise safety risks for passengers and staff
 - proximity to growth centres at University, ATP, North Eveleigh and Redfern Town Centre
- **Comply with Building Code of Australia (Fire, Life and other safety requirements)**



DESIGN CONSIDERATIONS

- Narrow platforms with buildings at widest point
- End-loaded configuration
- Growth in patronage
- Congestion in concourse
- Bi-directional flows on stairs
- DDA and F&LS
- Improvement of Platform clearance times
- Narrow path on Lawson Street
- Safety/Security including emergency egress
- Heritage issues
- Linkage with key destinations in Redfern Station catchment



PROJECT DEVELOPMENT

- Congestion and Capacity Analysis & Land based survey undertaken
- Preliminary site review and scoping exercise
- Options developed
- Value Management studies and workshops identified appropriate responses to constraints
- RWA input and review for town centre interface
- Identified a range of options for consideration and long term investment
- Economic & Financial Evaluations
- Cost and Constructability Report



OPTION COSTS

Financial Components	Base Case	Option 1 (Option D)	Option 2 (Option E)	Option 3 (Option C1)
<i>Total Project Costs (\$M)</i>				
<i>Ongoing Operating Costs (\$M)</i>				
<i>Delivery Timeframe (Months)</i>				
BCR (7 percent incremental to Base Case)				



Base Case – ongoing operation

CONTINUATION OF
EXISTING
CONDITIONS

NO CAPITAL
IMPROVEMENTS

ONGOING PERIODIC
MAINTENANCE

COST



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OPTION 1 (Option D) – Easy Access & FLS Station Upgrade

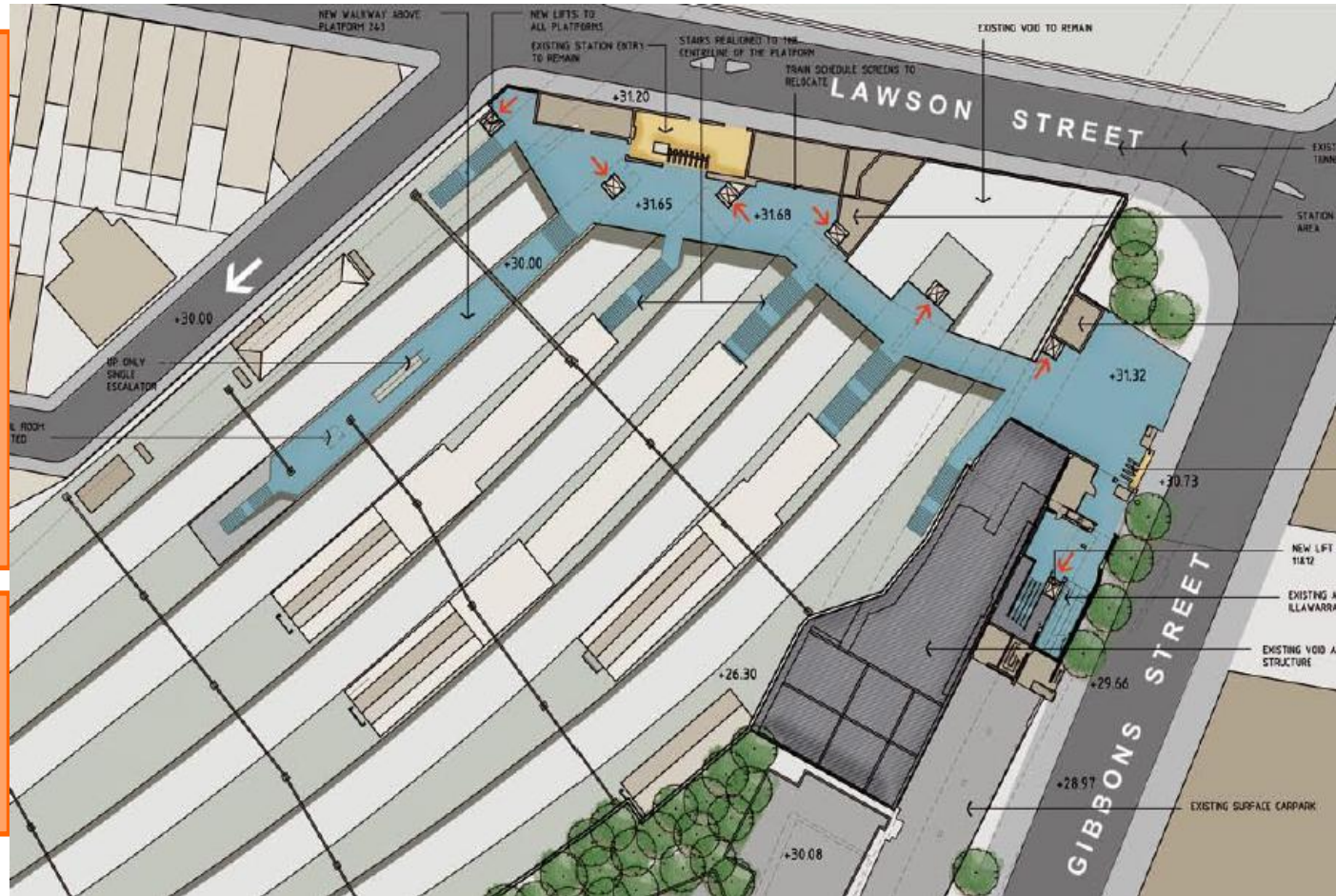
STATION UPGRADE

- Driven by F&LS and DDA Compliance
- Includes installation of new lifts to all platforms
- Extended elevated walkway on platform 2/3
- Accessible toilet facilities
- New fire escape stair to the Illawarra Relief platforms
- Additional Station operations accommodation

Total Project Budget:

Ongoing operating Costs =

BCR @ 7% = 0.8



OPTION 2 (Option E) - Upgrade/ Interface works in addition to Option D

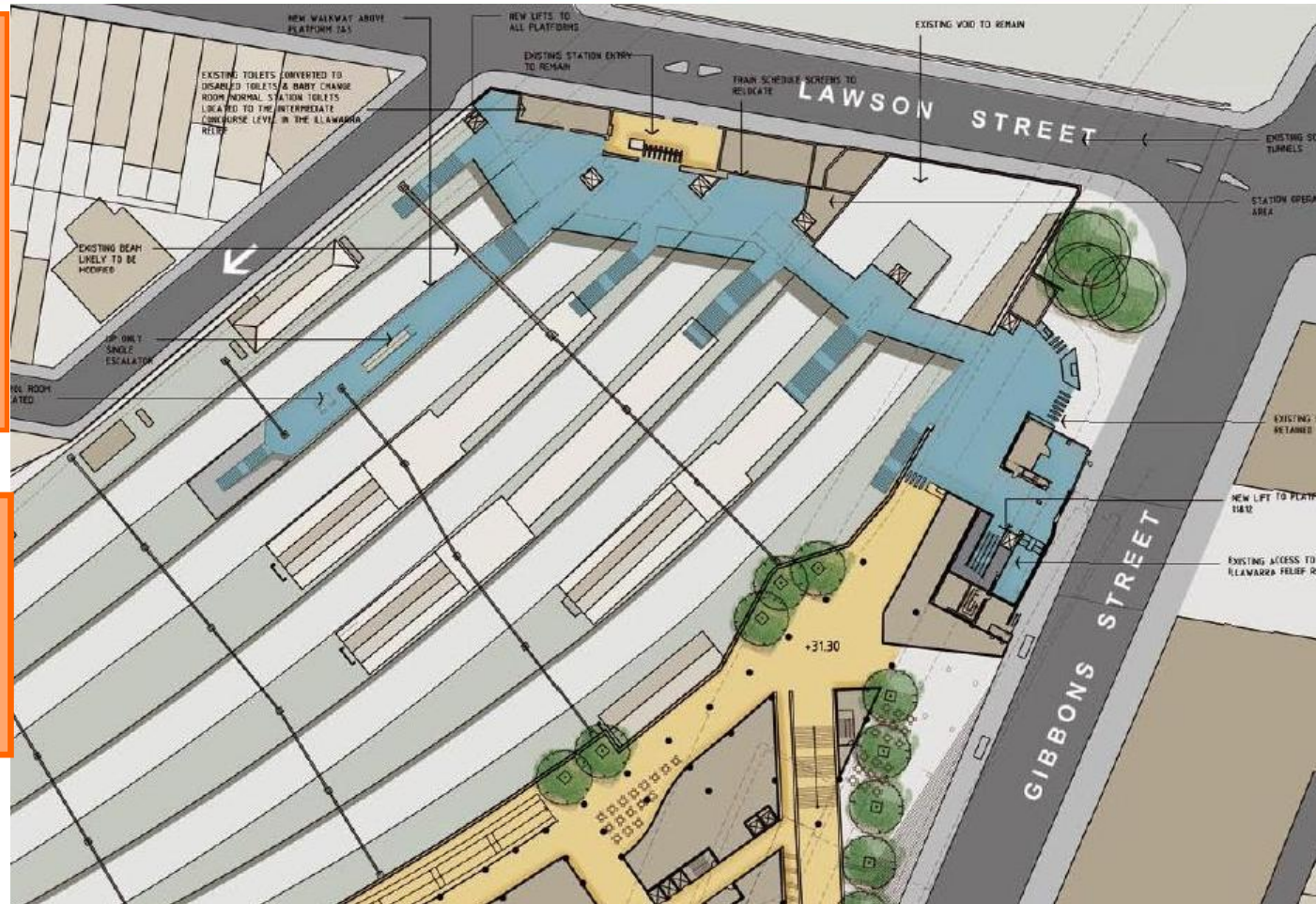
STATION UPGRADE

- Similar to Option 1 (D) but with the additional of:
- Widening of Lawson Street Concourse
- Longer canopies for platforms 2-9
- Remodelling of Gibbons Street entry to provide for a larger forecourt area

Total Project Budget:

Ongoing operating Costs =

BCR @ 7% = 0.9



OPTION 3 (Option C1) – Full Station Redevelopment

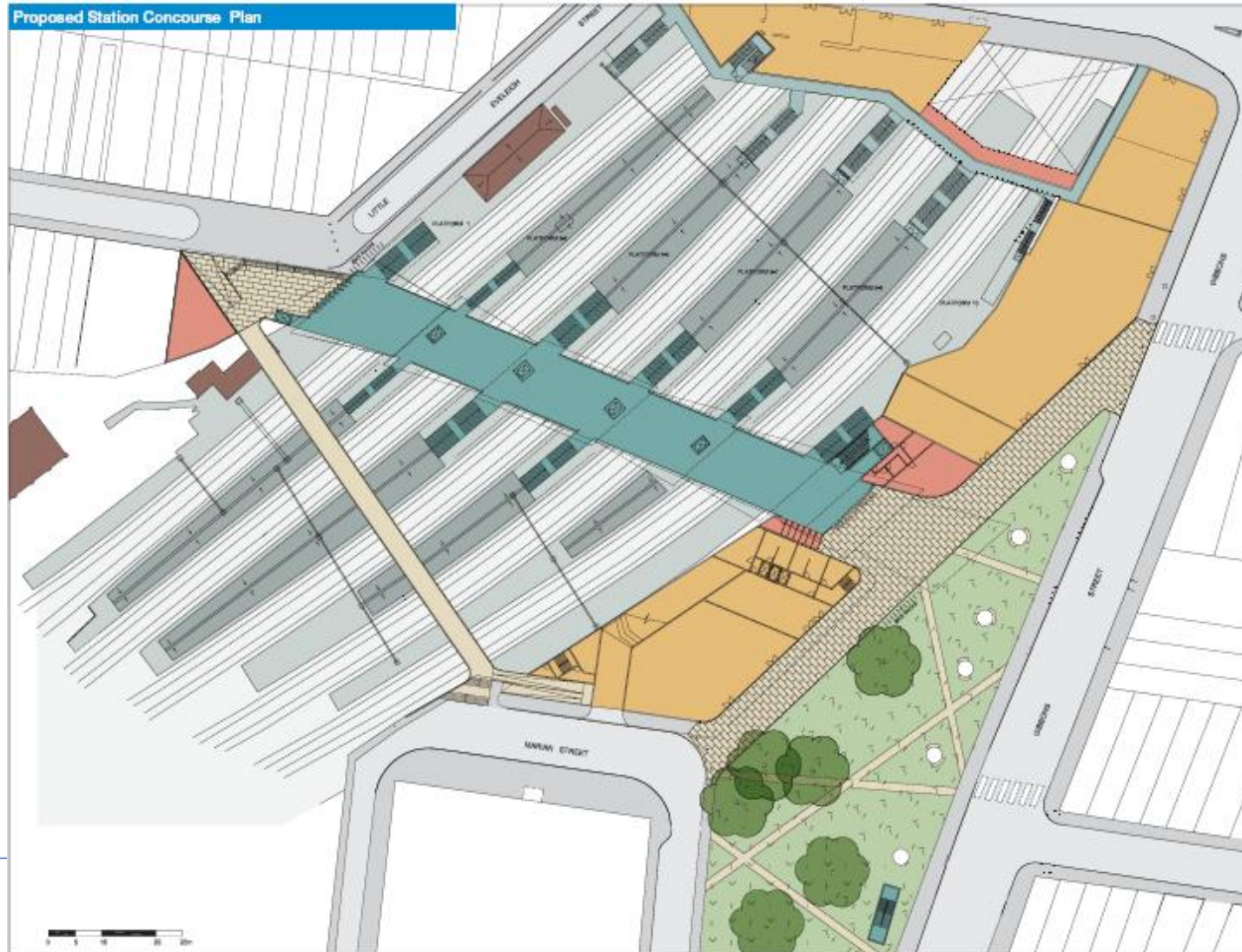
STATION UPGRADE

- new centrally located concourse
- Lift access to all platforms
- Closing of Lawson Street Concourse (only to be used as fire egress)
- new staff amenities & public toilets
- new station entry
- new platform canopies
- construction of unpaid footbridge

Total Project Budget:

Ongoing operating Costs =

BCR @ 7% = 1.0



Option Comparison

Review Criteria	Option 3 (C1)	Option 1 (D)	Option 2 (E)
Urban Design (Refer 2.1.3, 2.2.3 & 2.3.3)	Average	Poor	Poor
Visible Station Entrance (Refer 2.1.2, 2.2.2 & 2.3.2)	Poor	Average	Average
Clarity of Station Planning (Refer 2.1.1, 2.2.1 & 2.3.1)	Good	Poor	Poor
Sight Lines / legibility (Refer 2.1.1, 2.2.1 & 2.3.1)	Average	Poor	Poor
Equitable Access (Refer appended Accessibility Report)	Good	Unacceptable	Unacceptable
Passenger Amenity – Comfort – Security (Refer 2.1.3, 2.2.3 & 2.3.3)	Good	Poor	Poor
Travel Distance from Key Destination (Refer 2.1.2, 2.2.2 & 2.3.2)	Good	Average	Average
Heritage Impact (Refer 2.1.4, 2.2.4 & 2.3.4)	Poor	Good	Good
Provisional Unpaid Link Across Tracks (Refer 2.1.3, 2.2.3 & 2.3.3)	Average	Unacceptable	Poor
Quality Development Around Station (Refer 2.1.5, 2.2.5 & 2.3.5)	Poor	Unacceptable	Poor
Value for Money (Extrapolated from above)	Average	Poor	Poor

Recommended

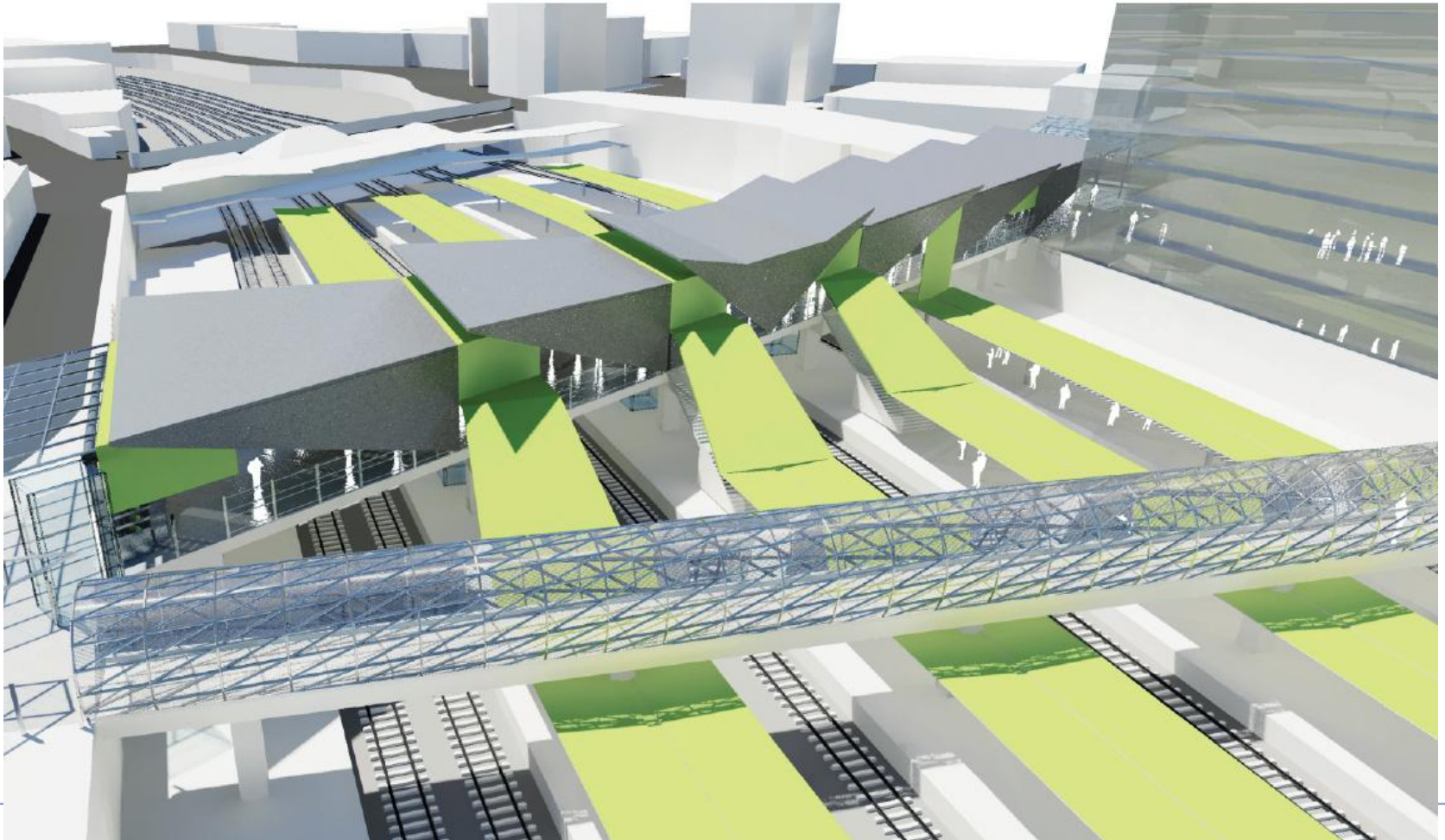
Not Recommended

Not Recommended

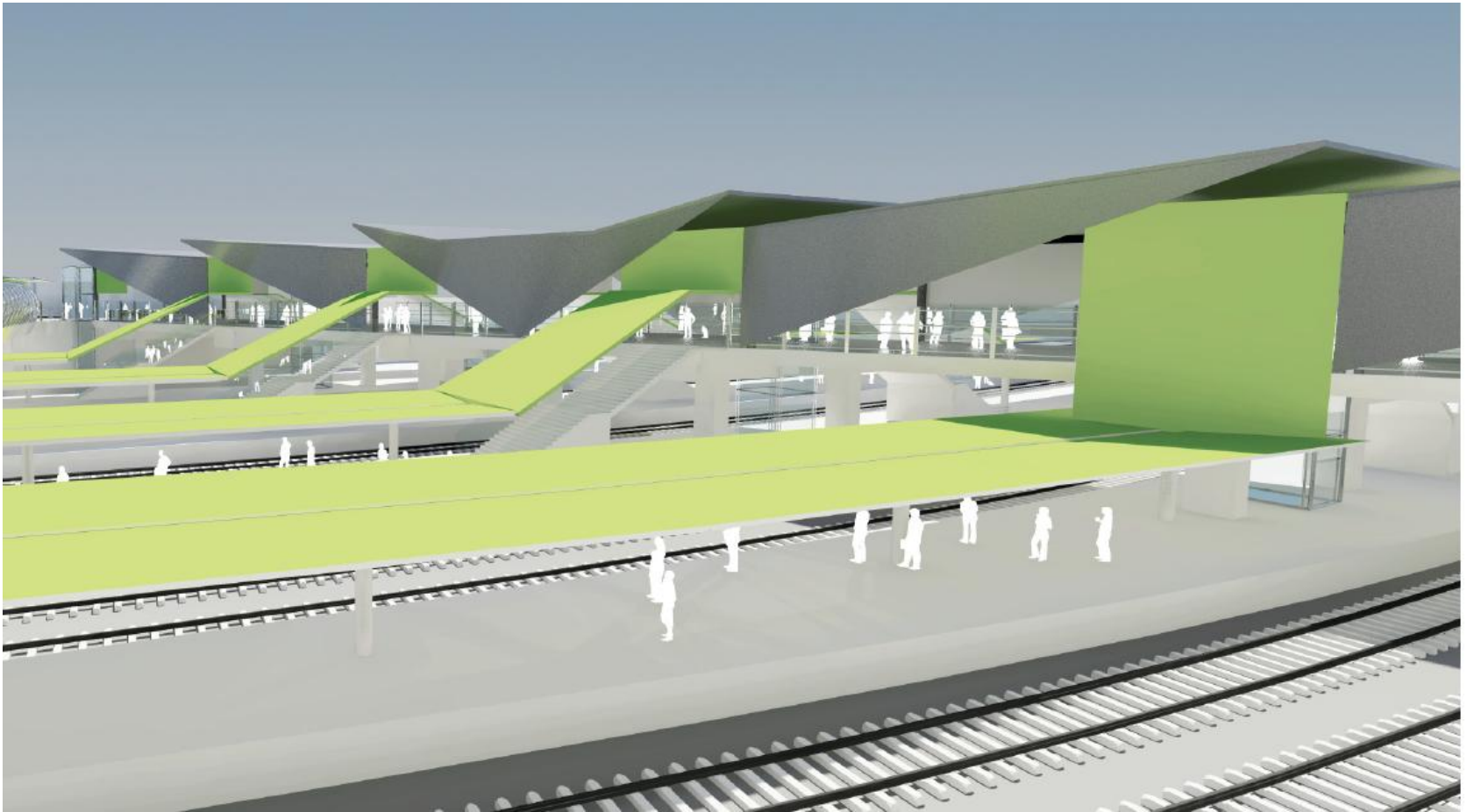


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Option 3 (C1) - view from country end



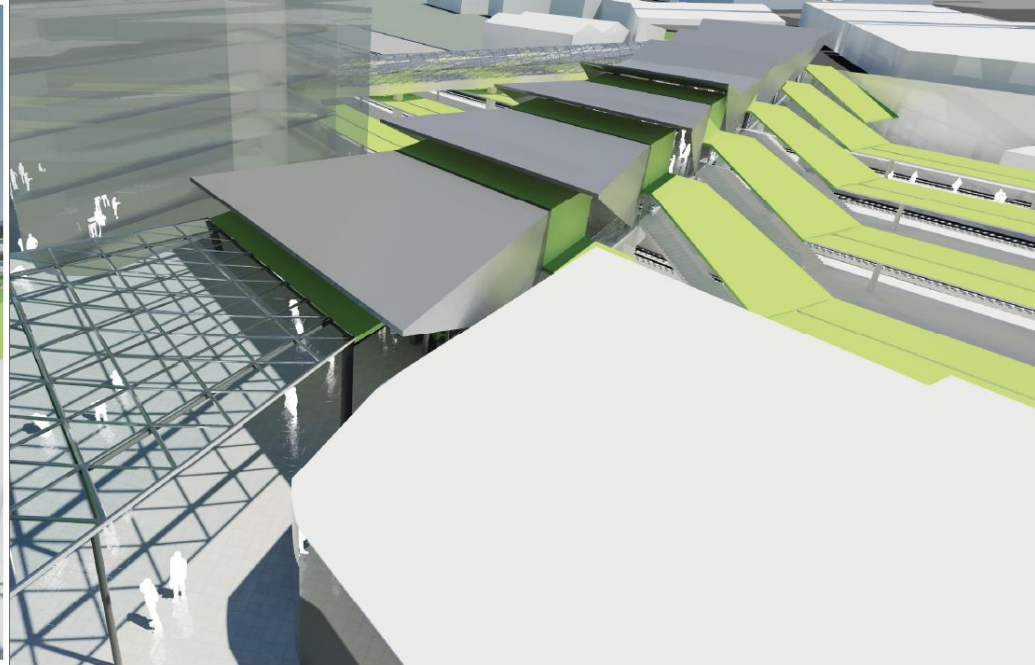
Option 3 (C1) – view from Marian St



Option 3 (C1)



View from Little Eveleigh St



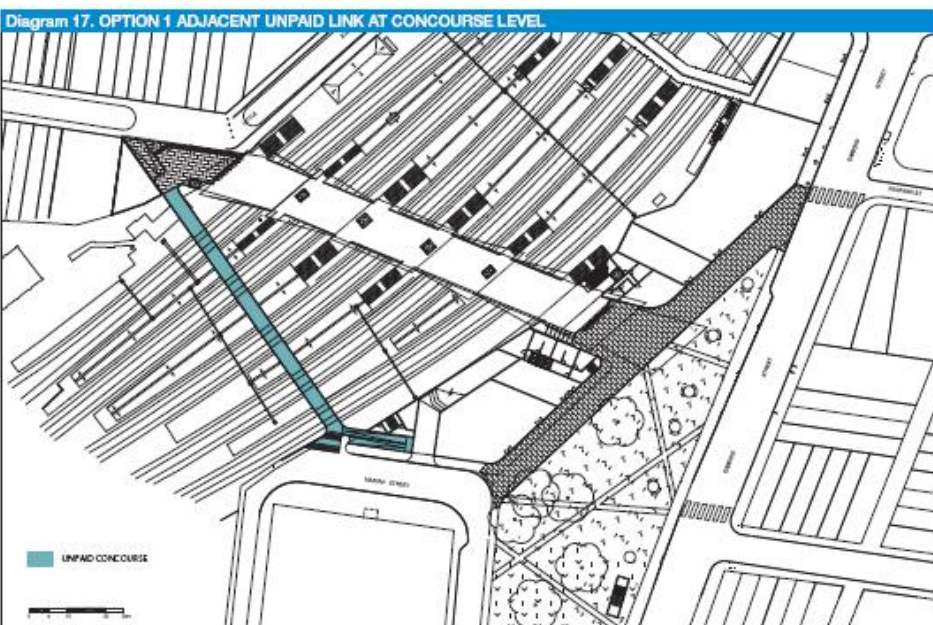
Aerial View of Gibbons St entrance



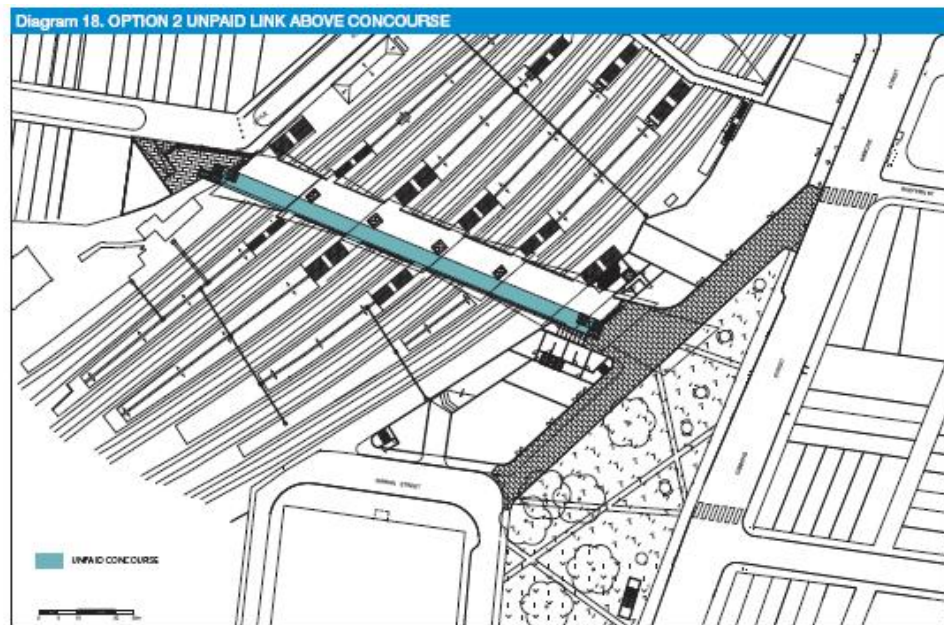
Unpaid Pedestrian Bridge – Heritage Bridge Option



Unpaid pedestrian crossing - options



Option 3 (C1)



Option 3 (C2)

TANGIBLE BENEFITS (Option 3 (C1))

- Economic Benefits:
 - Amenity & Access User Benefit
 - Double Centre Stairs Unit Benefit
 - Lift (mobility challenged) user Benefits
 - Footbridge benefits
- Financial Benefits:
 - Increase in Fare Revenue
 - Refunding [REDACTED] in nominal dollars) costs that RailCorp would incur to build the unpaid footbridge
 - Residual Values



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INTANGIBLE BENEFITS (Option 3 (C1))

- Reduced crowding on platforms, stairs and concourse
- Improvements in staff working environment
- Improvement in fire and life safety compliance
- Improved personal safety (integrated footbridge)
- Improved aesthetics and amenity for wider community and rail users
- Environmental – reduced car use
- Allows for greater interchange – reducing reliance on Central and Town Hall for interchange therefore improving congestion issues at those other stations
- Supports economic and social regeneration of Redfern area
- Compliance with DDA and BCA Acts



ECONOMIC EVALUATION – Option 3 (Option C1)

- Incremental Economic Benefits for the period 2010 to 2040

Discount Rates	Improved Amenity	Double Centre Stairs Users	Lift Associated Benefits	Footbridge Benefits	Total Economic Benefits
0% (\$M)					
7% (\$M)					

- Economic Evaluation summary incremental to the Base Case

Item	Undiscounted	4 percent	7 percent	10 percent
Net present value (NPV) (\$M)				
Net present value per dollar invested (NPVI) (\$)				
Benefit cost ratio (BCR)	3.12	1.55	1.01	0.71
Internal rate of return (IRR) (%)	7.1%			



DEVELOPMENT APPROVALS PROCESS

- RailCorp has engaged a consultant (SKM) to determine the approvals pathway.
- The most likely scenario is that approval would be required from the Minister for Planning, due to SEPP (Major Projects) 2005.



STAKEHOLDER MANAGEMENT

RWA

- Involved in the design as members of the project working group
- Subsequent presentations to the RWA (most recently Nov 09, March 10)
- Review and re-design to satisfy concerns held by RWA

City of Sydney Council,
Department of Planning,
Transport NSW, STA, RTA,
Redfern Local Area Police
Command and
Sydney University, NSWTI

- Briefing session and meetings



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STAKEHOLDER MANAGEMENT

Heritage Office	Community / Aboriginal housing Company
<ul style="list-style-type: none">• On site briefing on 30 March 2010, where impact of removal of buildings was discussed, and plans presented for review.	<ul style="list-style-type: none">• Built Environment Ministerial Advisory Committee (Nov 2009)• REDwatch community group (15 April 2010)• AHC (Nov 05, Aug 09)

PROJECT GOVERNANCE

PRINCIPLES

Three levels of governance:

STRATEGIC

Station Steering Committee

- Directs the Station Programs, including Easy Access
- Makes significant business decisions as they relate to stations
- Discusses broader integrated transport matters
- Plan changes in Strategic Direction as guided by the Growth Executive Committee
- Approves program priorities

TACTICAL

Station Project Control Group

- Reports and manages the status of:
 - Station Upgrading
 - Easy Access
 - Minor Works
 - Other Station and precinct projects

- Confirms project scope
- Directs project risk management and issue resolution
- Discusses and recommends program priorities

OPERATIONAL

Station Working Group

- Reviews and endorses designs, construction staging plans, communication plans

HIERARCHY

GROWTH EXECUTIVE COMMITTEE

Chair: CEO - delegated to GGM S&SD

STATION STEERING COMMITTEE

Chair: GGM Strategy & Service Development

STATION PROJECT CONTROL GROUP

Chair: GM Network Development

STATION WORKING GROUP

Chair: Manager Station Development



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PROJECT GOVERNANCE

STATION STEERING COMMITTEE

Endorse yearly Capital Expenditure Program priorities and delivery strategy

Consider future station and precinct designs and business requirements (together with Station Functional Requirements and Classification Structure)

Composition:

Chair: GGM Strategy & Service Development

STATION PROJECT CONTROL GROUP

Prioritise programs and projects (for future years)

Review programs and project status (for current year)

Provide guidance to resolve program and project issues

Composition:

Chair: GM Network Development

STATION WORKING GROUP

Review designs and staging plans for:

- Station Upgrading Projects
- Easy Access Projects
- Commuter Car Park Program Projects

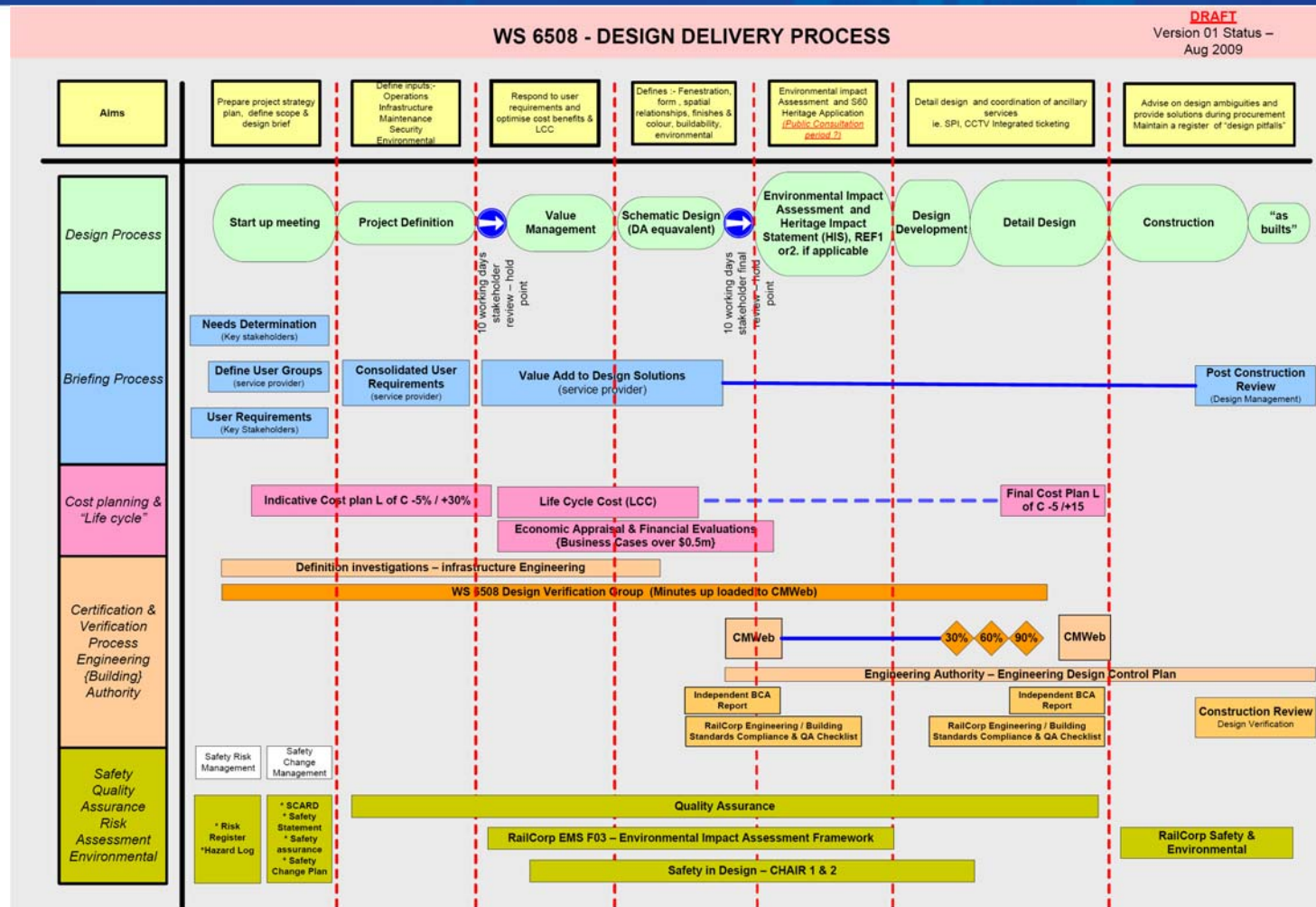
Composition:

Chair: Manager, Station Development



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CHANGE MANAGEMENT

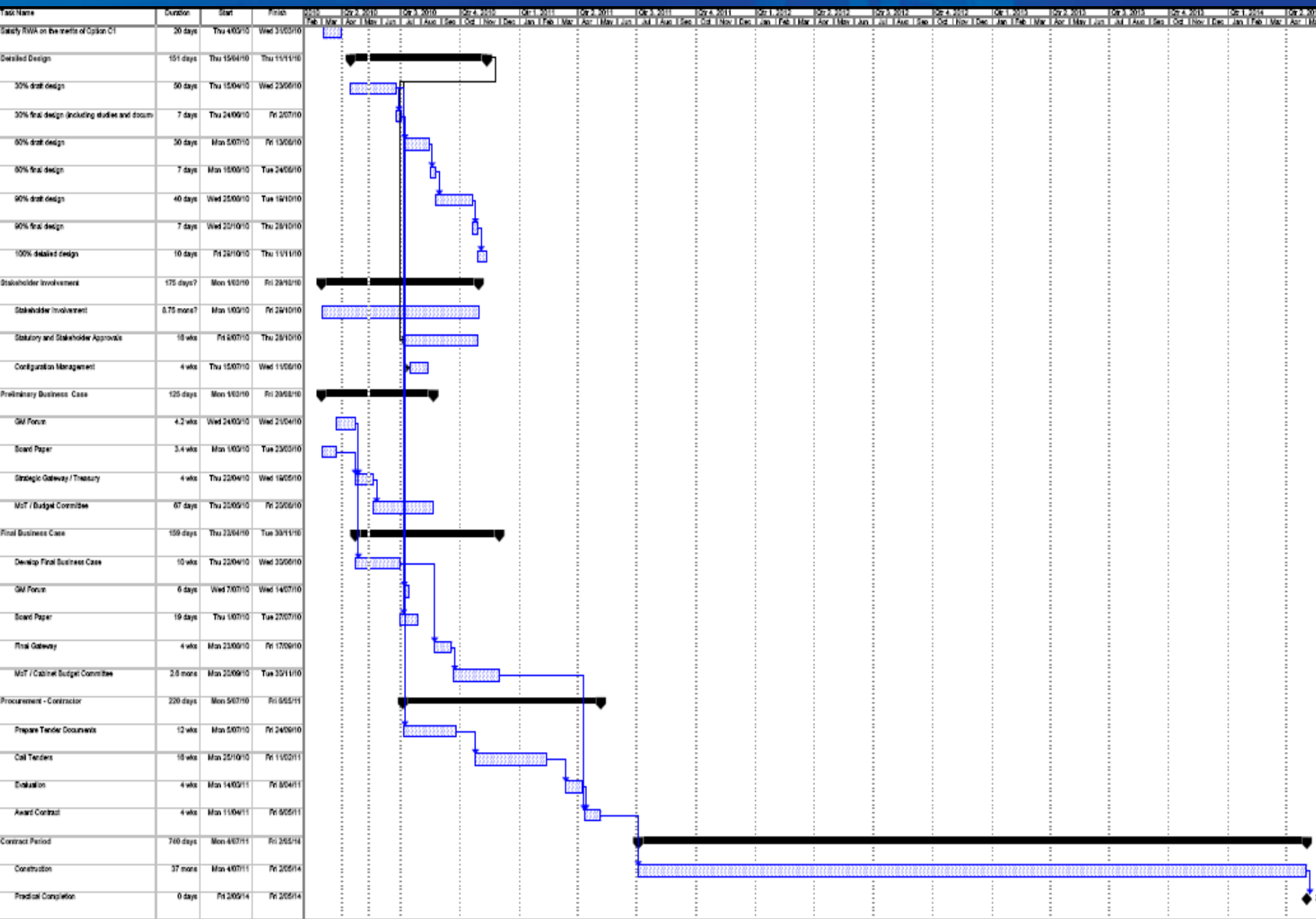


CHANGE MANAGEMENT

- Proposed RailCorp changes include:
 - New platform canopies
 - new concourse
 - Infrastructure works including OHW/signalling modifications
- These proposed changes detailed via the following:
 - Configuration Change Requests on CM Web (web based system)
 - Presented formally to the Configuration Control Boards (CCB) for their acceptance.
 - Stakeholder Workshops
 - Concurrence from various asset / maintenance engineers will be obtained via the CM Web system, CCB meetings and stakeholder workshops.
 - Handover, operation, maintenance documentation
 - Update of asset registers and databases
- The Configuration Management Process has been developed and endorsed for Station Upgrade projects.



PROJECT SCHEDULE



PROJECT BUDGET

PART B - Section 4.2.2 Financial Evaluation for Recommended Option - Option C1 - Full Station Redevelopment

Description	Already Incurred Costs	Year 0 2009/10 \$ '000s	Year 1 2010/11 \$ '000s	Year 2 2011/12 \$ '000s	Year 3 2012/13 \$ '000s	Year 4 2013/14 \$ '000s	Year 5 2014/15 \$ '000s	Remain Years \$ '000s	TOTAL \$ '000s
Already Incurred Costs									
Capital Investment									
Capital Contingency									
Total Capital Costs									
Project Operating Costs									
Project Operating Contingency									
Total Project Operating Costs									
Total Project Budget									
Ongoing Operating Costs									
Total Benefits									
Sponsor's Brief – Highest Total Cost Estimate									
Contingency Applied to Total Project Costs (%)									



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CONTINGENCY MANAGEMENT

- Project Contingency allowed:
 - Inaccuracies with scope and budget estimate
 - Latent Site Conditions
 - Availability of possessions
 - Procurement of goods and services,
 - Funding and configuration approval processes
 - Heritage Issues
- Risk based project contingency (Risk Register):
 - A Total Project Contingency allowance
- The following assess/approve use of contingency:
 - Project Manager – review & endorse use
 - Program Manager – approves up to specified limit / endorses beyond limit
 - Station Project Control Group – reviews monthly spend & reviews contingency acquittal reports. Makes recommendations to Sponsor.
 - Sponsor – approves use over specified limit of Program Manager




KEY BUSINESS & PROJECT RISKS

Describe the Risk	Mitigating Actions to be taken by this Project
Delivery of asset on budget	Close management of finances and milestone management, signed off and endorsed scope, development of budget contingency, use RPMM as a guide to manage project
Milestones for project commencement and commissioning are not met	Stations Steering committee regular review, Ensure scope is signed off by client, Schedule regularly reviewed and updated, Obtain timely funding approvals, Obtain timely heritage /council approvals
Availability of resources. Sharing of scarce internal / external resources where resources with required skills are limited	Procurement strategy, forward planning of resources, Secure additional resources through early planning.
Funding requested is not approved, or approval is delayed	Stations Steering committee regular review, Prepare all documentation and perform review for funding endorsement process, Signed off and endorsed scope
Delays Or Non-Approvals or scope alterations from Statutory Authorities (RWA)	Early Notification, investigation, Scope definition, Meetings with relevant officers to review design and proposals



SUMMARY

- Construction due to commence July 2011
- Construction over 3 financial years
- Total project budget 



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