

## ITEM NUMBER: 17.1

### CONFIDENTIAL REPORT

#### BRIGHTON OVAL COMPLEX – REDEVELOPMENT CONTRACT APPROVAL (REPORT NO: 294/18)

*Pursuant to Section 83(5) of the Local Government Act 1999 the Report attached to this agenda and the accompanying documentation is delivered to the Council Members upon the basis that the Council consider the Report and the documents in confidence under Part 3 of the Act, specifically on the basis that Council will receive, discuss or consider:*

- b. Information the disclosure of which could reasonably be expected to confer a commercial advantage on a person with whom the council is conducting, or proposing to conduct, business, or to prejudice the commercial position of the council; and would, on balance, be contrary to the public interest.
- d. commercial information of a confidential nature (not being a trade secret) the disclosure of which could reasonably be expected to prejudice the commercial position of the person who supplied the information, or to confer a commercial advantage on a third party; and would, on balance, be contrary to the public interest.

#### Recommendation – Exclusion of the Public – Section 90(3)(b and d) Order

1. That pursuant to Section 90(2) of the *Local Government Act 1999* Council hereby orders that the public be excluded from attendance at this meeting with the exception of the Chief Executive Officer and Staff in attendance at the meeting in order to consider Report No: 294/18 Brighton Oval Complex – Redevelopment Contract Approval in confidence.
2. That in accordance with Section 90(3) of the *Local Government Act 1999* Council is satisfied that it is necessary that the public be excluded to consider the information contained in Report No: 294/18 Brighton Oval Complex – Redevelopment Contract Approval on the following grounds:
  - b. pursuant to section 90(3)(b) of the Act, the information to be received, discussed or considered in relation to this Agenda Item is information the disclosure of which could reasonably be expected to confer a commercial advantage on persons with whom the Council is proposing to conduct

business and would prejudice the commercial position of the Council in negotiation of the tender and contract.

In addition, the disclosure of this information would, on balance, be contrary to the public interest. The public interest in public access to the meeting has been balanced against the public interest in the continued non-disclosure of the information. The benefit to the public at large resulting from withholding the information outweighs the benefit to it of disclosure of the information.

- d. pursuant to section 90(3)(d) of the Act, the information to be received, discussed or considered in relation to this Agenda Item is commercial information of a confidential nature (not being a trade secret) the disclosure of which could reasonably be expected to prejudice the commercial position of the person who supplied the information in that it would disclose commercial pricing information about a tender and would confer a commercial advantage on a third party.

In addition, the disclosure of this information would, on balance, be contrary to the public interest. The public interest in public access to the meeting has been balanced against the public interest in the continued non-disclosure of the information. The benefit to the public at large resulting from withholding the information outweighs the benefit to it of disclosure of the information.

3. The Council is satisfied, the principle that the meeting be conducted in a place open to the public, has been outweighed by the need to keep the information or discussion confidential.
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CONFIDENTIAL

Item No: **17.1**

Subject: **BRIGHTON OVAL COMPLEX – REDEVELOPMENT CONTRACT APPROVAL**

Date: 28 August 2018

Written By: Manager Assets & Facilities  
Manager Active Communities

General Manager: City Assets and Services, Mr H Lacy

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## SUMMARY

At its meeting on 10 July 2018, Council approved the calling of tenders for a Managing Contractor to manage the design and construction of the three (3) new clubrooms under the Brighton Oval Building Redevelopment. A Request for Tender was subsequently issued to four short-listed companies with tenders closing at 5.00pm on 10 August 2018.

An evaluation panel was established which reviewed the four written tenders. A subsequent interview was conducted with the two preferred tenderers to assist with final selection. On the basis of the evaluation, Administration recommends that Cook Building be awarded the contract to undertake the role of Managing Contractor for the proposed Brighton Oval Building Redevelopment.

The contract price and delivery programs are aligned with the available budget (\$8.17m) over the two financial years (commencing in 2018/19). The RFT did not seek, and the tender did not provide, a price for the actual construction. Instead the RFT sought the price for the managing Contractor to undertake the detailed design and to manage the overall construction activities. A price for the actual construction will be negotiated with the contractor once the detailed design reaches the 30% design stage.

This paper provides details of the tender evaluation for the Managing Contractor, the recommendation to appoint Cook Building and summary of the contract approach, risk management, planning approval process and the project budget.

A range of processes are in place to ensure the direct construction costs remain within the budget target including negotiating a Guaranteed Maximum Price for construction of the three (3) buildings, a program of design and cost reviews and an open book partnership with the Managing Contractor to facilitate value engineering and resolution of design issues.

Note that the lighting replacement at the Lacrosse club is a separate project and not part of this recommended construction contract.

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## RECOMMENDATION

### That Council:

1. Authorise the Brighton Oval Building Redevelopment Project (including upgrading sports lighting to one (1) Lacrosse pitch) to proceed to construction based on a total project budget of [REDACTED] subject to successful Development Approval;
2. Note the attached tender evaluation report for the Brighton Oval Building Redevelopment and award the Managing Contractor contract to Cook Building at a contract price of [REDACTED] (excl GST) comprising:
  - (a) Managing Contractor costs of [REDACTED] (excl GST)
  - (b) direct construction costs of [REDACTED] (excl GST)
3. Authorise the Chief Executive Officer to execute the contract with Cook Building for the delivery of Brighton Oval Building Redevelopment subject to any necessary minor amendments; and
4. Grant landlord consent to install the proposed lighting upgrade for the Lacrosse club, subject to satisfactory design and Development Approval.

### RETAIN IN CONFIDENCE - Section 91(7) Order

5. That having considered Agenda Item 17.1 Brighton Oval Complex – Redevelopment Contract Approval (Report No: 294/18) in confidence under section 90(2) and (3)(b and d) of the *Local Government Act 1999*, the Council, pursuant to section 91(7) of that Act orders that:
  - a) the discussion, report, attachments, minutes, tender and contract documents be retained in confidence until completion of the contract and/or the Chief Executive Officer is authorised to release the documents when such release would no longer confer a commercial advantage and/or prejudice the commercial position of the person who supplied the information and that this order be reviewed every 12 months; and
  - b) the report, attachments, minutes, tender and/or contract documents be made available in confidence to the Audit Committee for review as necessary.

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## COMMUNITY PLAN

Placemaking: Creating lively and safe places

Placemaking: Developing walkable connected neighbourhoods

Placemaking: Building character and celebrating history

Community: Building a healthy, active and resilient community

Community: Celebrating culture and diversity  
Community: Providing welcoming and accessible facilities  
Community: Fostering an engaged and contributing community  
Environment: Fostering an environmentally connected community  
Culture: Supporting excellent, efficient operations

## COUNCIL POLICY

Not Applicable.

## STATUTORY PROVISIONS

Development Act 1993

## BACKGROUND

- Council Report No: 240/18; Item No. 14.6 'Brighton Oval Complex – Redevelopment', 10 July 2018.
- Council Report No: 255/18; Item No. 11.2 'Motion on Notice – Brighton Oval development – Tender Documents', 24 July 2018 (resolution C240718/1220).
- Council Report No: 272/18; Item No. 14.3 'Brighton Oval Complex – Redevelopment', 14 August 2018 (tender documents).
- Council Report No: 274/18; Item No. 11.2 'Brighton Oval Complex Redevelopment – Background Papers', 14 August 2018 (resolution C140818/1241).

After considerable community and stakeholder consultation, a master plan for the Brighton Oval Building Re-development has been approved by the Council. Council has a deed of agreement with the State Government to undertake the redevelopment by June 2020.

The State Government is contributing \$2,000,000 and Council has allocated \$6,000,000 to undertake this project. Council has allocated a total of \$8,000,000 over two financial years (2018/19 and 2019/2020) towards this project. \$4,000,000 is now available in the current financial year budget.

Subsequent to a number of approvals by the Council, an Expression of Interest (EOI) was called in May 2018 to gauge construction industry interests in the project.

The EOI attracted 16 well known construction companies and their associated architects and consultants. An evaluation of the EOI submissions shortlisted the best four (4) companies who had the experience and capability to undertake the proposed Brighton Oval Building Re-development.

At its meeting on 10 July 2018, Council approved (refer Council Report No. 240/18, Item 14.6) the use of a hybrid Early Contractor Involvement (ECI)/Managing Contractor contracting methodology for the project and authorized Administration to call tenders on that basis. A Request for Tender

(RFT) was subsequently issued to the selected four (4) companies on 13 July 2018. The RFT closed at 5.00pm on 10 August 2018.

## REPORT

### Request for Tender

The aim of RFT was to engage a Managing Contractor who would manage the design and construction of the three (3) new double story buildings (including the demolition of the existing buildings) as follows:

- Brighton Rugby Club – located to the Brighton Road frontage of the oval site with views over the rugby field looking east.
- Brighton Sport and Social Club – providing combined facilities for cricket and Australian Rules football with a new clubroom on the western edge of the main oval (in a similar location to the existing grandstand) with views over the oval looking east.
- Brighton Lacrosse Club – located in the same location as the existing Lacrosse Club.

A separate contract will be let to design, supply and install lighting upgrade for one (1) Lacrosse pitch a separate project and is not included in this recommended contract.

The Request for Tender (RFT) was called from four (4) the short-listed contractors on 13 July 2018. The four contractors were:

- Blubuilt
- Sarah
- Cook Building
- Schiavello

Among other things, the tender requested contractors to submit fixed quotes for:

- Overheads and margin
- Pre-construction management (design phase)
- Construction management (build phase)
- Preliminaries

Details of the tender documents are provided in Council Report No: 272/18; Item No. 14.3 'Brighton Oval Complex – Redevelopment' from 14 August 2018 meeting.

### Tender Evaluation

Tender closed on 10 August 2018. The selection of the contractor was predominantly based on the following criteria:

- Overhead /fee basis for the design development and project delivery phases, inclusive of liaison with Principal and stakeholders and obtaining development approval.

- Capability, systems and experience of the contractor's project team.
- Processes and methodology – a commitment to work in partnership with Council's project delivery team to deliver the project within the target price and project timeline.
- Innovation and/or alternative ideas the contractor can bring to the project.
- Incentive mechanism to adjust the price under or over runs.
- Project management, quality and safety systems proposed by the contractor.
- Any other relevant matters.

An evaluation panel was established to evaluate the four (4) written tenders. The evaluation was based on the evaluation criteria established and published through the RFT documents.

Tendering process was carried out by a team comprising staff from assets, financial & community teams together with experienced Principal from Tonkin Consulting. The evaluation process ranked the four (4) tenders.

Subsequent to the evaluation panel assessment, the two (2) top ranked companies and their key project team members were interviewed prior to formulating a final recommendation.

The Evaluation Panel recommends that Cook Construction be awarded the contract to undertake the proposed Brighton Oval Building Redevelopment based on their experience, proposed project team, proposed project timetable, tendered prices and commitment to partnering with Council.

The attached evaluation report provides the detailed tender evaluation, weightings, the evaluation matrix and the evaluation panel member comments.

*Tender Evaluation Report – Refer Attachment 1*

## **Risk Management**

In Administration's report to Council on 10 July 2018 seeking approval to adopt a hybrid Early Contractor Involvement (ECI)/Managing Contractor contract methodology, a number of risks were identified including:

- Caretaker period
- Planning Approvals
- Insufficient Budget
- Contract Model
- Delivery Program
- Political
- Stakeholders
- Maintenance and Operation
- Ongoing Management (Lease arrangements)
- Reputation

The project team has continued to refine the risk management plan including mitigation strategies. The current version of risk management plan is attached.

*Risk Management Plan – Refer Attachment 2*

The project team is confident that risk can be adequately managed for the project and therefore Council can be confident (within normal commercial parameters) that the project can be implemented as planned.

### **Contract Model and Structure**

A key risk identified for the project is the contract model and structure. The project team has worked with Minter Ellison lawyers and Tonkin Consulting to ensure that the contract structure, terms and conditions provide an effective mechanism to ensure the project is delivered within the budget, time line and quality target. The structure, general terms and conditions of the contract are designed to manage the project's design and delivery risks through:

- Partnering to internalise and share risks
- use of hold/approval steps
- commercial incentives
- open book approach
- strong governance and project management arrangements
- effective tender assessment process
- proven contract documentation
- understanding of the commercial risks within this delivery framework

This contract is to manage the two clear stages of the project (detailed design and construction) within a set and documented budget.

Whilst the ECI/Managing Contractor model is relatively new to Holdfast Bay, it has been used widely across the construction industry and all tenderers have had successful projects working under this contract methodology. The contract documents for this contract are modelled on documents prepared for a building project currently being undertaken by the City of Mitcham and are proving successful in the implementation of that project.

A key part of the contract is the Principal's Project Requirements (PPR) and specifications which define the quality of the delivered project. Council engaged Tonkin Consulting to prepare the PPRs which were modelled on the recent Kauri Parade project. The contractor and the Council's project team, in consultation with the stakeholders (sporting clubs and others) will develop the detailed design that can be delivered within the set budget. This contract internalizes the key risks so that issues can be resolved during the design process.

The first stage of the project is to develop preliminary costs estimates and then work towards the full detail design. A number of hold points are established for this design develop phase including 30% detail design and 70% detail design. These hold points provide convenient points at which Council and the clubs can provide specific feedback and approval of the work to date.

Once the detailed design reaches 30% design, Council and the Managing Contractor negotiate the Guaranteed Maximum Price (GMP) which is the agreed price that the contractor will charge council for delivery of the physical construction. Council has the option to terminate the contract



at this point should the negotiation fail to reach an acceptable GMP within the construction budget. If Council exercises this option, then the contractor assigns the designs and all IP to council, Council pays the contractor the agreed design fee and any other committed costs and the contract is terminated. Council is then at liberty to use the design to engage another contractor to deliver the project.

The contract also provides general terms and conditions to manage the obligations (such as delivery programs, payments and any variations) of each parties in relation to the project.

A summary of the contract methodology, including an explanation of how the contract works, has been prepared by Minter Ellison and is presented in attachment 3.

*Lawyers Opinion - Contract Methodology – Refer Attachment 3*

### Project Budget

The approach to cost control within the contract cost is to establish a preliminary estimate based on the final concept in the first instance. Once the detail design reaches 30% design completion, negotiations to formulate the Guaranteed Maximum Price (GMP) will commence. One of the underlying project principles is that the GMP will not exceed the project construction budget. During these negotiation a Quantity Surveyor will assist Council to ensure costs are reasonable and that the proposed GMP represents fair value.

The tender price of the recommended tenderer is provided below.

<b>Cook Building Pty Ltd (Recommended Tenderer)</b>	<b>Price</b>
Overheads and Margin	
Pre-construction management	
Construction Management	
Preliminaries	
<b>Total</b>	
<b>Available budget for construction</b>	
<b>Allocated Construction Budget</b>	

A comparison of tendered prices is presented in the Evaluation Report – refer Attachment 1.

### Delivery Program and Project Schedule

The recommended delivery program is designed to minimise inconvenience to the sporting clubs and their members. Cook Building Pty Ltd provided 3 options for building construction schedules.

The preferred construction option spans 272 days and is staged as follows:

- Rugby clubroom – construction to commence on 5 April 2019 and be completed by 6 September 2019 (winter season).
- Football/Cricket clubrooms – construction to commence on 30 September 2019 and be completed by 14 April 2020 (summer season)

- Lacrosse clubrooms – construction to commence on 14 October 2019 and be completed by 7 April 2020 (summer season).

Details of the proposed program are summarised below:

Project stage	Commencement	Completion
Detailed Design	Sep 2018	April 2019
Rugby Club room construction	April 2019	Sep 2019
Footy/cricket club room construction	Sep 2019	April 2020
Lacrosse club room construction	Sep 2019	April 2020
Lacrosse light replacement	Sep 2018	April 2019
Other civil works	NA	NA

This program has a low level of disruption and displacement of sporting teams as winter months are largely avoided, reducing impact on the winter sports. Although the Rugby building is being constructed during the winter 2019 season, the Rugby club will still retain access to their existing building and playing surface.

Temporary facilities for cricket club during the 2019/20 summer season will need to be provided, and depending on the sports fixtures in the early rounds of the 2020 winter season, Lacrosse and Football may also need to utilise temporary facilities. Importantly, access to the Brighton Sports and Social Club will remain unaffected during construction, and is the last building to be demolished, once the Lacrosse facility is handed over.

As a separate project, the specifications, design and development application are being progressed for the upgrading of the main Lacrosse pitch lights. It is anticipated that the lights will be replaced by April 2019, prior to commencement of the new season. (Note: this is a separate project under the umbrella of the Brighton Oval Upgrade but is not part of the Managing Contractor contract).

Separate funding application and budget allocation are being sought to cover the cost of carpark upgrades, ground improvements, playgrounds, landscaping and off-site traffic improvements. These works will be considered when funds become available.

Project programs have some float to allow for delays (eg weather, site issues, etc. the recommended contract acknowledges that there may be reasonable grounds for Extension of Time claims and prolongation costs. A fixed builder's margin has been agreed in the tender for any variations/prolongation claims.

### Project Governance

The project governance model proposed for the project is based on two concurrent teams – Project Steering Group (PSG) and a Project Delivery Team.

The purpose of the Project Steering Group is to oversee the entire project, provide guidance to the Project Delivery Team and to respond to issues such as questions, approvals and clarifications.

The PSG will also manage the over project budget and be the first point for resolution of any major issues. The PSG will comprise Council's Project Director, representatives from the 3 clubs and the Office of Recreation and Sport, and Council's project manager. The contractor will be represented by their project director and project manager.

As key stakeholders, the sporting clubs will have designated design review points with controlled access to the Project Delivery Team. Project governance arrangements are aimed to smooth design development & approvals process. Ultimately Council may have to make a call on final design, quality and cost parameters.

The Project Delivery Team is responsible for the delivery of the design (including stakeholder inputs and sign-offs) and the physical construction. Membership of the Project Delivery Team would include the Contractor's project management, Council's project manager, designers, architects, consultants, and the contractor's project and site personnel necessary to develop the design and supervise construction. Council's Quantity Surveyor and engineering advisers will work with and attend Project Delivery Team meetings as necessary.

The aim of the governance model is to structure the input from stakeholders and client so that the project design and delivery can proceed in an efficient and controlled manner.

A strong partnering approach will be promoted through the project governance structure and project charter. There will be support for the project manager through Tonkin, Minter Ellison and a Council appointed Quantity Surveyor. Council will appoint an experienced Project Manager and Quantity Surveyor to monitor design, trades packages, costs and quality.

*Project Governance Structure – Refer Attachment 4*

### **Planning Risk**

A number of planning issues have emerged as the initial project development progresses. These include:

- Additional car parking - planning advice indicates that approximately 100 more car parking spaces will be required to satisfy planning approval criteria. Traffic management and car parking consultants have been engaged to identify possible solutions to satisfy the planning approval criteria. A draft plan for car parking has been developed is attached. Note that these car parks do not have to be constructed as part of this project phase, but can be included in future stages and this will satisfy the planning approvals criteria.

*Draft Car Park Layout – Refer Attachment 5*

- Fire service low water pressure – investigations have revealed that watermain capacity in surrounding streets may not be able to meet fire service supply requirements which would necessitate either a street watermain upgrade or onsite fire tanks/pumps. This information will be provided to the contractor to resolve during detail design. It is unlikely to cause any issues in planning approvals.

- Tree removals additional car parks - there are 95 trees in the overall Brighton Oval precinct. A tree management report indicates that several trees will need to be removed to fit the proposed structures and/or proposed carparks. A program of replacement planting will be implemented.

### **Partnering with Clubs**

The Project Steering Group will include club representatives to ensure their requirements, expectations and requests are considered at the highest level of the project.

During the detailed design process, Council's Project Manager will meet with the contractor and the club representatives on a regular basis to ensure the detailed design is developed in full consultation with the club representatives.

During the detailed design, a Fixtures, Fittings and Equipment (FFE) schedule will be created to ensure expectations about the extent and quality of fit-out are managed. These arrangements will be eventually included in the lease agreements.

### **Proposed Lighting at Lacrosse**

The proposed sports lighting upgrade for Lacrosse playing ground is not included in the Managing Contractor contract, although it is an integral part of the overall Brighton Oval Redevelopment Project. The design and development application are being managed as a separate project, with the overall cost for lighting 1 pitch being estimated at [REDACTED].

*Proposed Lacrosse Lighting Upgrade – Refer Attachment 6*

The Lacrosse club has developed the specification and assessed the impact of the new lights on the surrounding residents. The Club is keen to do the project coordination and advised that they have necessary suppliers and personnel lined up for the project.

There are three project management approach options to implement this project:

- Option 1 - Council undertake the project management and call tenders for the supply and installation of the lights. In this process, the Lacrosse Club will be a stakeholder rather than having direct involvement with Council's contractor.
- Option 2 - Council permits Lacrosse Club to participate in the bidding process to supply and install the new lights. This would require procurement process or process parameters to be modified. May include sub-option of club members (tradies) providing parts of the services and materials.
- Option 3 - Council authorise the Lacrosse Club to arrange for the supply and installation of the new lights with Council supervising the Lacrosse Club. Warranty and serviceability issues would be addressed by the club.

Option 3 is recommended on the basis that the Lacrosse Club will be effectively responsible under their lease for the full maintenance of the lights once commissioned.

All options will require planning development approval and Council's landlord consent.

### Incentives

The contract approach seeks to incentivise the Managing Contractor to maintain the project scope and the size and quality of the clubrooms during the detail design phase. The incentive arrangement is based on difference between Council's direct construction budget (\$6,645,390) and the Guaranteed Maximum Price (GMP).

If the contractor can prepare approved designs which meet Council's Principal's Project Requirements and specifications, are acceptable to the clubs and the GMP is below the Council's direct construction budget, then the contractor will receive 50% of that difference provided the final actual delivery costs are within the GMP.

By way of example, if the GMP was set at [REDACTED] with the direct construction budget at [REDACTED], the contractor would be entitled to a bonus of 50% of the difference (ie 50% of \$200,000) provided the project met Council and the club's requirements and was delivered for a final cost of [REDACTED] or less.

This incentive is intended to focus the contractor on keeping the GMP within Council's direct construction budget.

### BUDGET

The overall project budget (including contributions from clubs) is \$8,170,000 with the total construction budget (comprising Managing Contractor and direct construction costs) set at \$7,350,000.

The Brighton Sport and Social Club have secured \$75,000 from SANFL to fund enhancements to their building. Similarly Brighton Rugby Club is proposing a contribution of \$95,000 for improvements to their building.

Funding is allocated across 2 financial years as follows:

Financial Year	Council funds	ORS Funds	Club Funds	Total Funds
2018/19	\$2,000,000	\$2,000,000	\$0	\$4,000,000
2019/20	\$4,000,000	\$0	[REDACTED]	\$4,170,000
<b>Total Project</b>	<b>\$6,000,000</b>	<b>\$2,000,000</b>	[REDACTED]	<b>\$8,170,000</b>

The project budget is allocated as follows:

Council - shared projects costs (eg preliminaries, soil testing, concept design, approvals, service connections, project management, landscaping and paving)	██████████
Lighting Upgrade Lacrosse pitch	██████████
Managing Contractor costs	██████████
Funds available for direct construction	██████████
<b>Total Project Budget</b>	<b>\$8,170,000</b>

The funds available for direct construction costs are therefore ██████████.

**LIFE CYCLE COSTS**

Once the development is completed, the asset, component lives, and their values will be included in the asset register. The regular maintenance costs will be appropriately shared between the lessee and Council. The required replacements and the associated costs will be included in the relevant asset management plan.

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# Attachment 4

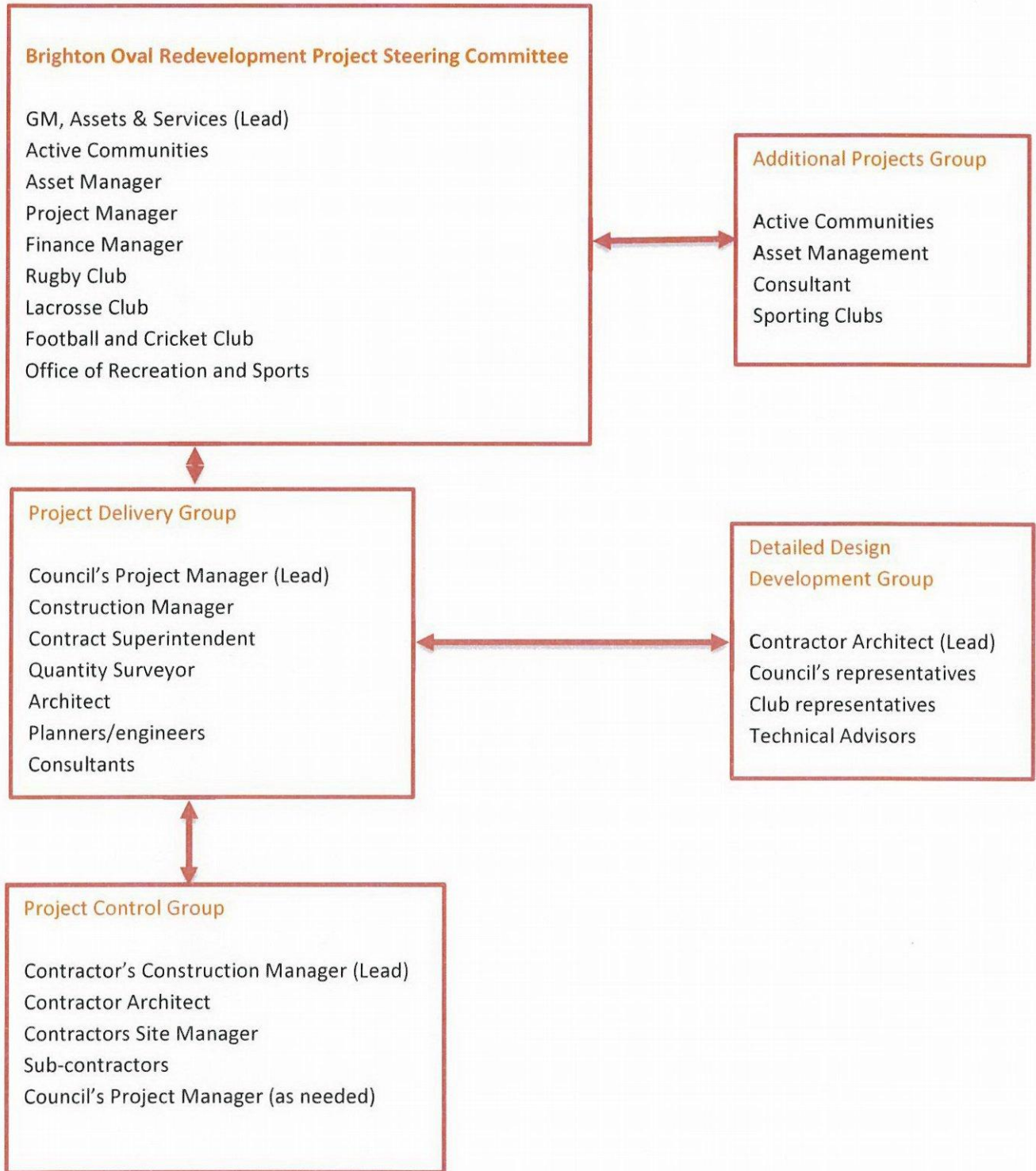
## Project Governance Arrangement



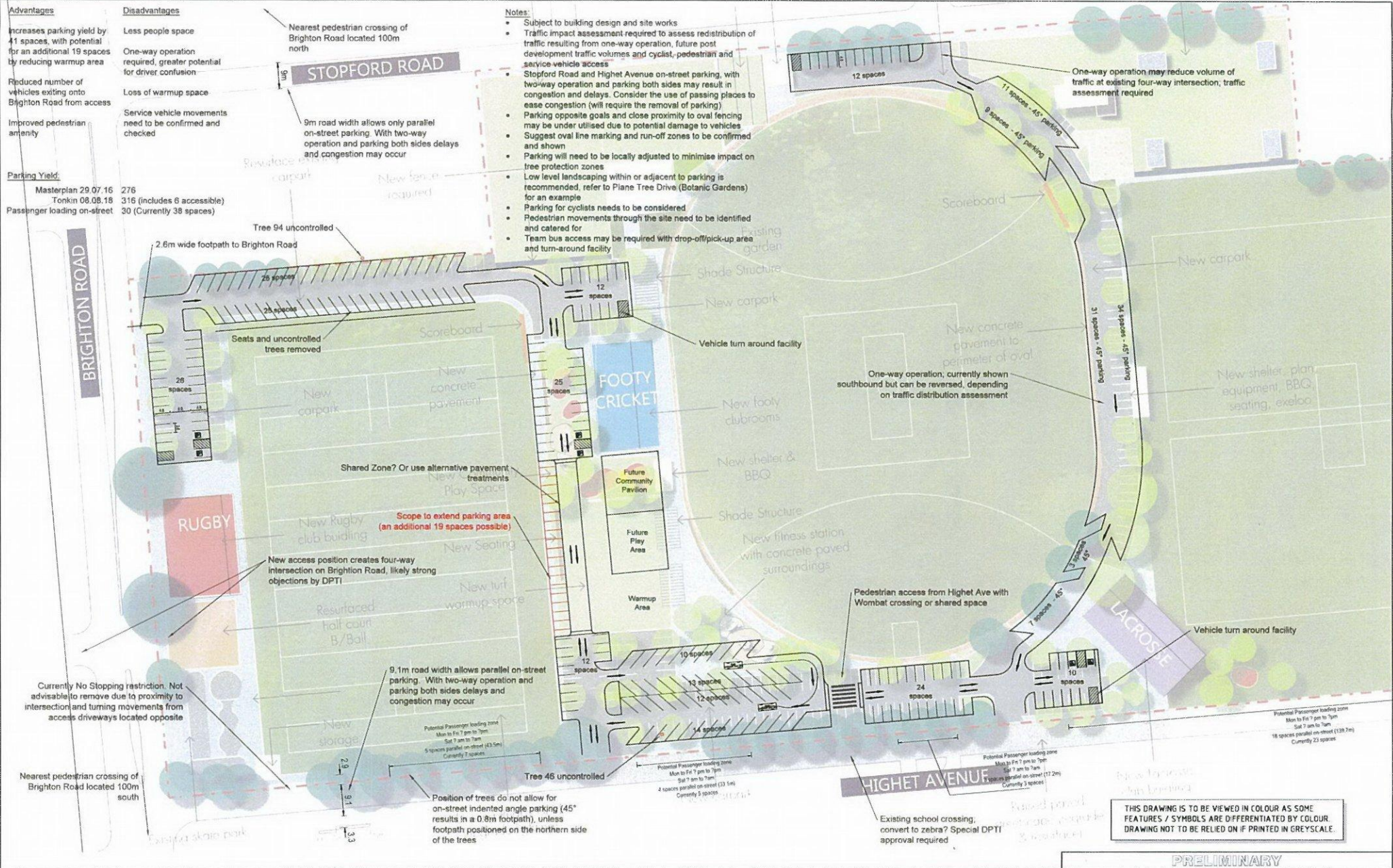
See Membership and Reporting Lines Below



## Membership and Reporting Lines



# Attachment 5



REV	AMENDMENT / REASON FOR ISSUE	DATE	DES	DWN	DWGCHK	VERIFIED	APPROVED
C	Minor amendments	9/9/18	CH	CH		M de H	
B	Client review - minor amendments	8/8/18	CH	CH		M de H	
A	For client review	3/8/18	CH	CH		M de H	

**PUBLIC UTILITIES**

THE SERVICES SHOWN ARE DERIVED FROM PLANS OBTAINED FROM THE RELEVANT SERVICE AUTHORITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ARRANGE WITH THE RELEVANT SERVICE AUTHORITIES FOR CONFIRMATION OF SERVICES AND THEIR LOCATION BEFORE EXCAVATION WORK COMMENCES.

100mm ON ORIGINAL DRAWING. DO NOT SCALE DRAWING.



PRELIMINARY			
SHEET SIZE	A1	City of Holdfast Bay	
SCALE: NTS		Brighton Oval Complex Masterplan	
ORIGINAL SURVEY BY		Alternative Parking Arrangement	
SURVEY DATE:		Concept Only	
COORDS & DATUM	N/A	FILENAME:	29180691 BRIGHTON PARKING REV C.DWG
		JOB NUMBER:	20180691
		SHEET NUMBER:	01
		REVISION:	C

# Attachment 6





**LED OPTION**

**PHILIPS BVP525 SERIES**

**PROJECT NAME**

**BRIGHTON LACROSSE CLUB**

**SPORTSLIGHTING**

STEVE TANNER  
M. 0418 688 863

E. STANNER@SPORTSLIGHTINGSA.COM.AU

**DATE:** 25/07/2017

**SCALE:** NTS

**REV:** Page 1 of 2

Luminaire Schedule						
Symbol	Qty	Label	Total Lamp Lumens	LLF	Description	Lum. Watts
	8	ANB-LO	183011	0.900	BVP525 OUT T30 50K A-NB/30 +LO	1301.52
	14	ANB	193662.5	0.900	BVP525 OUT T30 50K A-NB/30	1392
	1	AMB-LO	183011	0.900	BVP525 OUT T30 50K A-MB/30 +LO	1301.52

Calculation Summary						
Project: Project_1						
Label	Units	Avg	Max	Min	Min/Avg	Min/Max
MAIN PITCH	Lux	207.05	329	128	0.62	0.39
PRACTICE PITCH	Lux	111.67	195	31	0.28	0.16

Calculation Summary			
Project: SPILL			
Label	CalcType	Units	Max
FENCELINE EAST_III_Seg1	Obtrusive Light - III	Lux	10
FENCELINE North Bndry_III_Seg1	Obtrusive Light - III	Lux	7
FENCELINE North Bndry_III_Seg2	Obtrusive Light - III	Lux	2
FENCELINE North Bndry_III_Seg3	Obtrusive Light - III	Lux	10
FENCELINE OPPOSITE_III_Seg1	Obtrusive Light - III	Lux	9

Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
1	ANB	-58.755	-38.706	25.25	41.061	37
2	ANB	-58.755	-38.606	24.75	42.071	37
3	ANB	-58.755	-37.706	25.25	44.695	36
4	ANB	-58.755	-37.606	24.75	45.518	36
5	ANB-LO	54.155	-37.176	24.75	147.033	37
6	ANB-LO	54.155	-37.076	25.25	147.756	37
7	ANB-LO	54.155	-36.176	24.75	148.182	37
8	ANB	54.155	-36.076	25.25	148.668	37
9	ANB	-57.255	31.706	25.25	319.165	35
10	ANB	-57.255	31.806	24.75	317.554	35
11	ANB	-57.255	32.706	25.25	327.051	36
12	ANB	-57.255	32.806	24.75	326.037	36
13	ANB	-57.155	33.294	25.25	35.344	37
14	ANB	54.155	31.706	25.25	211.332	37
15	ANB	54.155	31.806	24.75	211.818	37
16	ANB-LO	-57.155	34.294	25.25	35.011	37
17	ANB-LO	54.155	32.706	25.25	212.244	37
18	ANB-LO	54.155	32.806	24.75	212.967	37
19	ANB	54.155	33.294	25.25	144.656	37
20	ANB-LO	54.155	34.294	25.25	144.989	37
21	ANB	-33.75	99.25	18	270	35
22	AMB-LO	-0.5	99.25	18	270	32
23	ANB-LO	33.5	98.75	18	270	30

## Obtrusive Light - Compliance Report

AS 4282-1997, Pre-Curfew, Residential - Dark Surrounds  
 Filename: Brighton Lacrosse PRACTISE2  
 25/07/2017 10:53:45 AM

### Illuminance

Maximum Allowable Value: 10 Lux

Calculations Tested (5):

Calculation Label	Test Results	Max. Illum.
FENCELINE North Bndry_III_Seg1	PASS	7
FENCELINE North Bndry_III_Seg2	PASS	2
FENCELINE North Bndry_III_Seg3	PASS	10
FENCELINE EAST_III_Seg1	PASS	10
FENCELINE OPPOSITE_III_Seg1	PASS	9

# PHILIPS



#### LED OPTION

**PHILIPS BVP525 SERIES**

#### PROJECT NAME

**BRIGHTON LACROSSE CLUB**

**SPORTSLIGHTING**

STEVE TANNER  
M. 0418 686 663

E. STANNER@SPORTSLIGHTINGSA.COM.AU

DATE: 25/07/2017

SCALE: NTS

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