

Luminaire Location Summary									
Scene: Both 100 Lux									
LumNo	Label	Channel	Pole	X	Y	Z	Orient	Tilt	Switched
1	FL2[2]	SF 050	1	45.736	55.882	30.18	300	5	On
2	FL2[2]	SF 100	1	44.842	56.329	30.18	300	5	On
3	FL2[3]	SF 100	1	43.947	56.777	30.18	260	2.5	On
4	FL2[3]	SF 050	1	43.053	57.224	30.18	260	2.5	On
5	FL2[3]	SF 100	1	42.158	57.671	30.18	204	0	On
6	FL2[3]	SF 050	1	41.264	58.118	30.18	204	0	On
7	FL2[3]	SF 050	2	-57.488	49.683	30.18	0	0	On
8	FL2[3]	SF 100	2	-58.366	49.203	30.18	0	0	On
9	FL2[3]	SF 050	2	-59.243	48.724	30.18	298	0	On
10	FL2[3]	SF 100	2	-60.121	48.244	30.18	298	0	On
11	FL2[2]	SF 100	2	-60.998	47.765	30.18	260	2.5	On
12	FL2[2]	SF 050	2	-62.065	47.295	30.18	260	2.5	On
13	FL2[3]	JF 100	3	-103.554	13.881	30.18	287	2.5	On
14	FL2[3]	JF 050	3	-104.554	13.881	30.18	287	2.5	On
15	FL2[2]	JF 050	3	-105.554	13.881	30.18	247	5	On
16	FL2[2]	JF 100	3	-106.554	13.881	30.18	247	5	On
17	FL2[3]	JF 100	4	-127.615	-83.704	25.18	76	0	On
18	FL2[3]	JF 050	4	-127.104	-84.563	25.18	76	0	On
19	FL2[3]	JF 050	4	-126.593	-85.423	25.18	350	0	On
20	FL2[3]	JF 100	4	-126.082	-86.282	25.18	350	0	On
21	FL2[2]	JF 050	5	-29.006	-97.828	35.18	180	5	On
22	FL2[2]	JF 100	5	-28.555	-97.612	35.18	180	5	On
23	FL2[3]	JF 050	5	-28.103	-97.397	35.18	140	2.5	On
24	FL2[3]	JF 100	5	-27.652	-97.181	35.18	140	2.5	On
25	FL2[3]	SF 100	5	-27.201	-96.965	35.18	115	2.5	On
26	FL2[3]	SF 050	5	-26.299	-96.534	35.18	115	2.5	On
27	FL2[3]	SF 100	5	-25.848	-96.319	35.18	112	2.5	On
28	FL2[3]	SF 050	5	-25.397	-96.103	35.18	112	2.5	On
29	FL2[3]	SF 100	5	-24.945	-95.888	35.18	86	2.5	On
30	FL2[3]	SF 050	5	-24.494	-95.672	35.18	86	2.5	On
31	FL2[2]	SF 050	6	41.221	-58.029	30.18	156	2.5	On
32	FL2[2]	SF 100	6	42.132	-57.618	30.18	156	2.5	On
33	FL2[3]	SF 050	6	43.044	-57.206	30.18	100	2.5	On
34	FL2[3]	SF 100	6	43.955	-56.795	30.18	100	2.5	On
35	FL2[2]	SF 100	6	44.867	-56.383	30.18	60	5	On
36	FL2[2]	SF 050	6	45.779	-55.971	30.18	60	5	On
Total Quantity: 36									

- Note:
- Note:
1. This design is compliant with the light technical parameters of Australian Standards AS2560.2.3-2007 'Lighting of Football' amateur level competition play, however it should be taken as provisional only as all dimension, pole locations and heights must be confirmed before installation.
2. This design is based on the information extrapolated from an aerial image of the area and therefore can only be considered as provisional due to the inherent inaccuracies involved in the interpretation process. Therefore all the information supplied in this design is subject to verification, which can be provided on the receipt of accurate surveyed drawings in AutoCAD format.
3. An assessment of the floodlight system in accordance with the requirements of AS4282-1997 'The obtrusive effect of outdoor lighting' has been performed and the system is fully compliant for pre-curfew conditions for a large area [i.e. >75m] in a control level 1.
4. The pole heights specified in this design proposal should be taken as notional and are taken as the vertical distance from the base of the pole to the top cross-arm and assumes that the base is at the same relative height as the centre of the field. They therefore do not take into consideration the topography of the site. An analysis of the site topography should be taken into account when determining the actual required heights of each poles.
5. The proposed floodlights are 2kW metal halide operating on 415V (phase phase) reactor/ignitor control gear.
6. Refer to installation instructions for details on lampholder positional adjustment

zumtobel group

43-47 Newton Road, Wetherill Park NSW 2164

Project: Kingsley Park  
Sports Lighting Layout - 100 Lux (Both fields on)

Client: City of Jonndalup

Project No:	6747	PT/Quote No:	1909965	Date:	26/04/2017
Drawing No:	1_100BF	Lighting Engineer:	Peter Jones		
Revision No:		File:	6747-1.AGI		

THORN

ZUMTOBEL



Champion (New)

Luminaire Schedule					
Scene: Both 100 Lux					
Symbol	Label	Qty	Description	Lumens/Lamp	MF
	FL2[2]	12	CHAMPION - 2000W MHN-LA (MD) Asymmetric floodlight, lamp pos 2	220000	0.800
	FL2[3]	24	CHAMPION - 2000W MHN-LA (MD) Asymmetric floodlight, lamp pos 3	220000	0.800

Calculation Summary						
Scene: Both 100 Lux						
Label	Description	Avg	Max	Min	Min/Avg	Min/Max
Eh_1	Horizontal plane illuminance on senior AFL field at 0m afgl	121.26	170	77	0.64	0.45
Eh_2	Horizontal plane illuminance on junior AFL field at 0m afgl	141.21	199	85	0.60	0.43
Evs_1_III_Seg1	Vertical 'wall' illuminance on Creaner Dr residential boundary	4.44	6	2	0.45	0.33
Evs_1_III_Seg2	Vertical 'wall' illuminance on Creaner Dr residential boundary	1.50	2	1	0.67	0.50
Evs_1_III_Seg3	Vertical 'wall' illuminance on Creaner Dr residential boundary	2.00	2	2	1.00	1.00
Evs_1_III_Seg4	Vertical 'wall' illuminance on Creaner Dr residential boundary	3.89	6	2	0.51	0.33
Evs_1_III_Seg5	Vertical 'wall' illuminance on Creaner Dr residential boundary	6.75	8	4	0.59	0.50
TI_1	Threshold increment calculation on Creaney Dr northbound	3.62	19	0	0.00	0.00

Ordering Guide				Installation Details			
Qty	Description	SAP code	Type	No. of floodlights	36	No. of poles	6
36	CHAMPION 2kW MHNLA	96261230	2 kW metal halide floodlight	Height of poles (nom)	1 at 25m, 4 at 30m and 1 at 35m	Total power (nom)	76.5 kW
36	HIT-DE2000W/842MHNLA	96009899	2 kW metal halide lamp	Start current (nom)	6.32 amps	Run current (nom)	5.363 amps
36	CGTM2MHNLA415NIF	96038307	Tray mounted control gear	Note 1 - phase/phase 415 volt, nominal			
alternatively				Note 2 - per each lamp, power factor 0.9			
36	CGWP2MHNLA415NIF	96038308	Weatherproof control gear				

#### Obtrusive Light - Compliance Report

AS 4282-1997, Pre-Curfew, Residential - Light Surrounds  
Filename: 6747-1 [100 Lux both fields]  
26/04/2017 12:12:18 PM

#### Illuminance

Maximum Allowable Maintained Value: 8 Lux (Initial: 10 Lux)

Calculations Tested (5):

Calculation Label	Test Results	Max. Illum.
Evs_1_III_Seg1	PASS	6
Evs_1_III_Seg2	PASS	2
Evs_1_III_Seg3	PASS	2
Evs_1_III_Seg4	PASS	6
Evs_1_III_Seg5	PASS	8

#### Luminous Intensity (Cd) Per Luminaire

Maximum Allowable Value: 7500 Cd  
Control Angle: 83 Degrees

Luminaire Locations Tested (36)  
Test Results: PASS

#### Threshold Increment (TI)

Maximum Allowable Value: 20 %

Calculations Tested (1):

Calculation Label	Adaptation Test Results
TI_1	PASS

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Date: \_\_\_\_\_  
Signed: \_\_\_\_\_



## Cost Estimate - Kingsley Park, Kingsley - Sports Floodlighting Upgrade

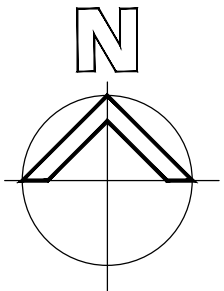
Prepared by the City of Joondalup

	<b>50 lux</b>	<b>100 lux</b>
<b>Upgrade mains cabling</b>	\$ 14,400.00	\$ 14,400.00
<b>Site main switchboard</b>	\$ 33,351.85	\$ 33,351.85
<b>Lighting control system</b>	\$ 4,937.06	\$ 4,937.06
<b>Light poles</b>	\$ 118,176.71	\$ 118,176.71
<b>Flood lights</b>	\$ 58,829.69	\$ 100,230.19
<b>Trenching and underground conduits</b>	\$ 51,498.00	\$ 90,696.00
<b>Cable pits</b>	\$ 15,929.09	\$ 15,929.09
<b>Cabling</b>	\$ 46,326.65	\$ 59,610.65
<b>Removal of redundant poles</b>	\$ 14,400.00	\$ 14,400.00
<b>Testing, commissioning and As Cos</b>	\$ 12,651.22	\$ 12,651.22
<b>Wester Power head works</b>	\$ 6,000.00	\$ 6,000.00
<b>DLGSCI Project Site Signage</b>	\$ 3,000.00	\$ 3,000.00
	<b>\$ 379,500.27</b>	<b>\$ 473,382.77</b>



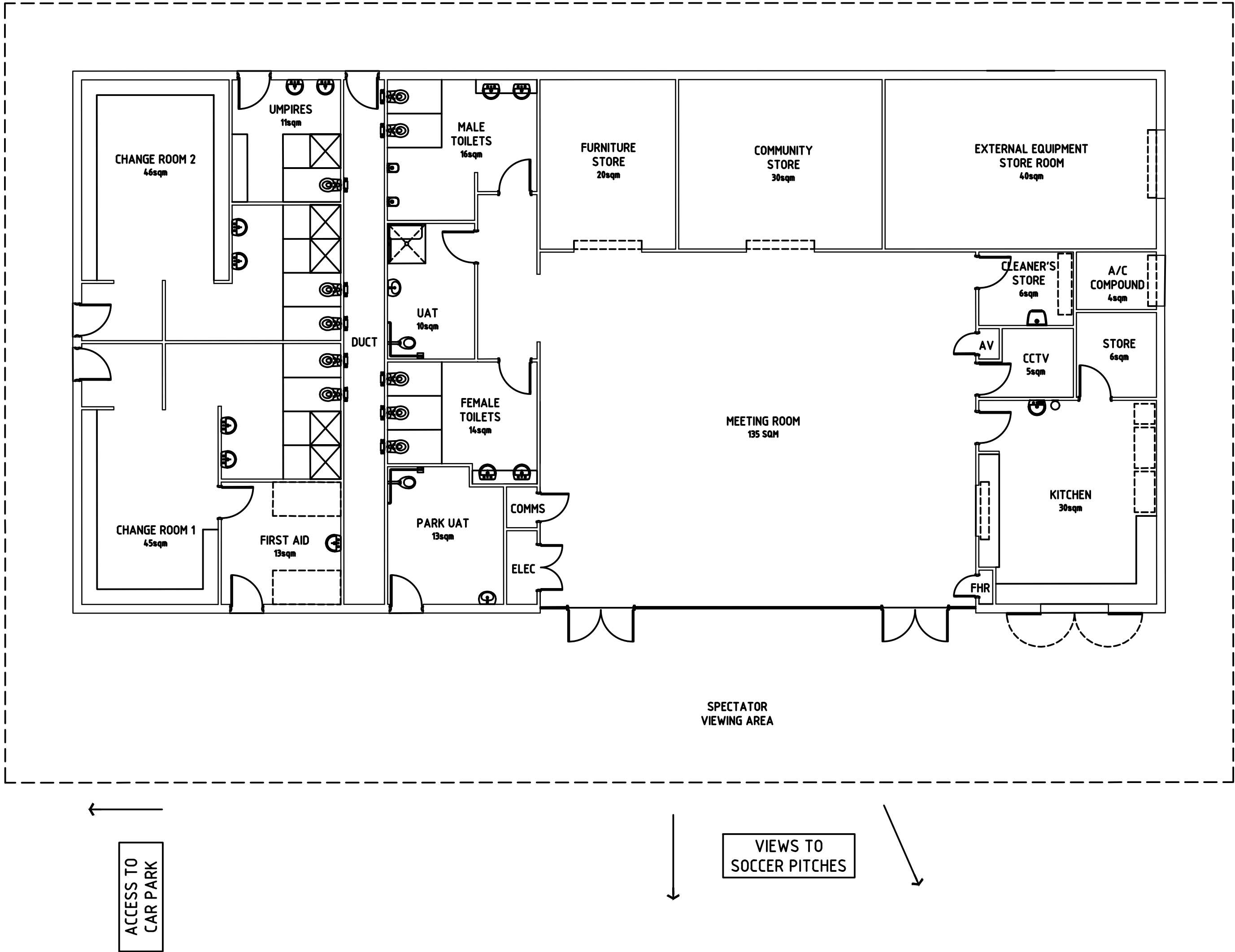


PROPOSED SITE PLAN - PRINCE REGENT PARK  
SCALE 1:1000 @A1

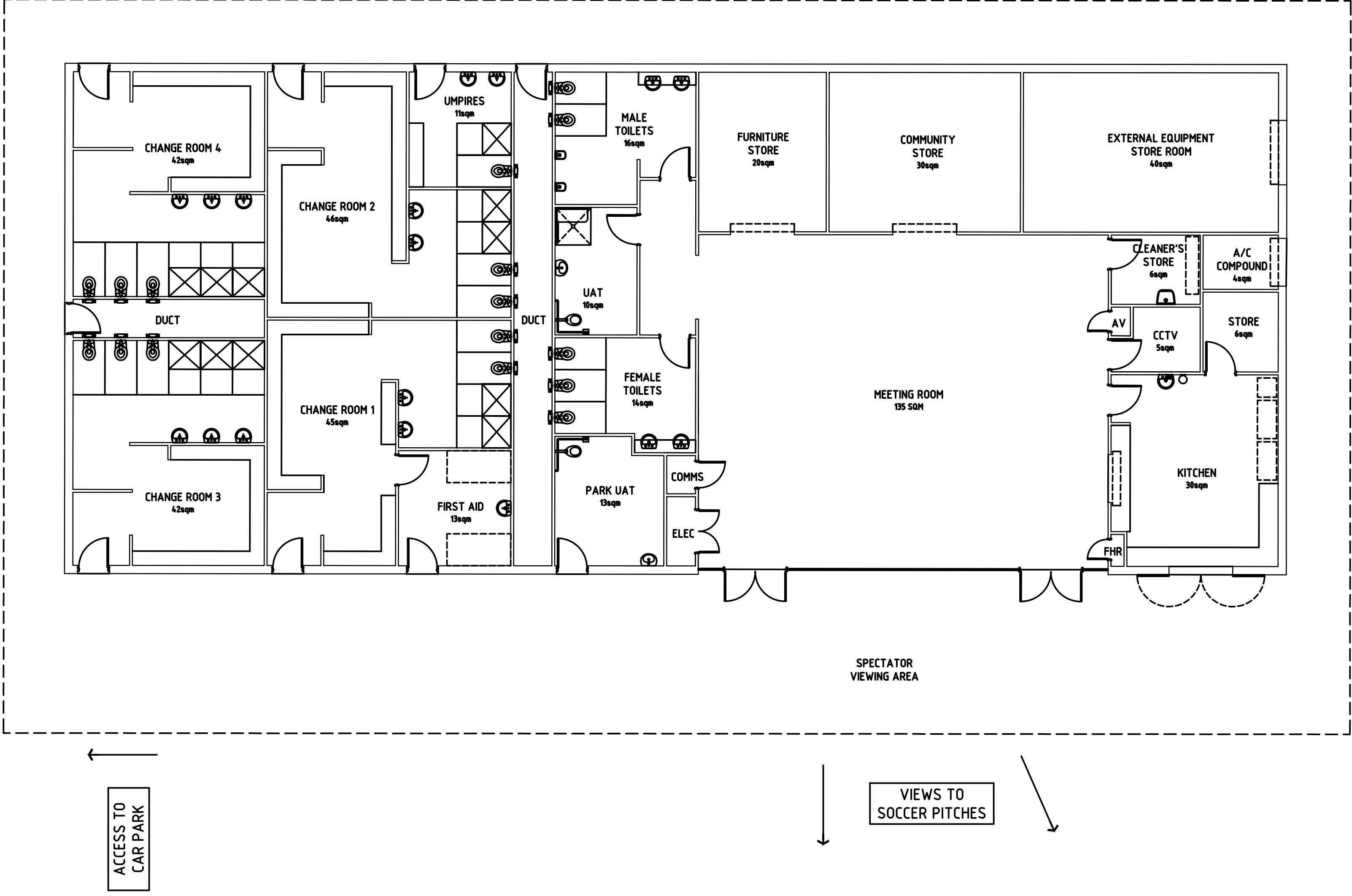


A		ISSUED FOR INFORMATION	LY	NP	26.07.2017		
revision/issue	description		drawn	checked	date		
project			drawn	description			
CITY OF JOONDALUP SITE INVESTIGATIONS			LY	PRINCE REGENT PROPOSALS			
location			checked				
PRINCE REGENT PARK			NP				
<div>Hodge Collard Preston</div> <div>ARCHITECTS</div>			Third Floor, 38 Richardson Street, West Perth, WA 6005 PO Box 743, West Perth, WA 6872 Ph: (08) 9322 5144 Fax: (08) 9322 5740 Email: admin@hpcarch.com				
			scale	date		JUNE 2017	
			1:1000	project no		dwg no	
			@ A1	55.17		SK02	
				rev		A	

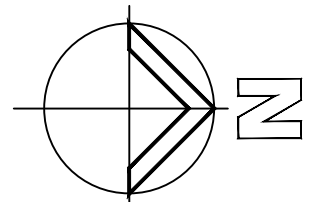




PROPOSED FLOOR PLAN - PRINCE REGENT PARK  
OPTION 1  
SCALE 1:100 @A1



PROPOSED FLOOR PLAN - PRINCE REGENT PARK  
OPTION 2  
SCALE 1:100 @A1



A		ISSUED FOR INFORMATION		LY	NP	26.07.2017
revision/issue	description		drawn	checked	date	
project		CITY OF JOONDALUP SITE INVESTIGATIONS		drawn	description	
location		PRINCE REGENT PARK		LY	PRINCE REGENT PARK FLOOR PLAN	
				checked		
				NP		
				scale	date	
				1:100 @ A1	JUNE 2017	
				project no	55.17	dwg no SK05
						REV A

Hodge Collard Preston  
ARCHITECTS  
Third Floor, 38 Richardson Street,  
West Perth, WA 6005  
PO Box 743, West Perth, WA 6872  
Ph: (08) 9322 5144  
Fax: (08) 9322 5740  
Email: admin@hpcarch.com

**OPINION OF PROBABLE COST**
**PROJECT: COJ Prince Regent Park**
**Itemised Breakdown - Option 1 - Rev 3**

Item	Description	Rate	Total
<b><u>PRINCE REGENT PARK (OPTION 1)</u></b>			
1	Clubroom Facility (building and fitout) and in addition trenching/cabling to get power from switchboard to facility		1,979,000
2	PV panels		28,000
3	Carpark extension , including external lighting		265,000
4	Cricket infrastructure works		141,000
5	Sports floodlighting upgrade		162,000
6	Temporary facilities		29,000
7	Artwork		13,000
	<b><u>ESTIMATED TOTAL</u></b>		<b><u>2,617,000</u></b>

## COMMUNITY SPORTING AND RECREATION FACILITIES FUND APPLICATIONS – 2018-19 ANNUAL AND FORWARD PLANNING GRANT ROUND

The following provides an analysis of the quantitative and qualitative data gathered from the *Kingsley Park, Kingsley – Sports Floodlighting Project* Survey conducted with residents between 12 June and 3 July 2017.

### BACKGROUND

The City consulted directly with the following stakeholders:

- Local residents within 200 metres of Kingsley Park;
- Representatives from current park user groups; and
- Kingsley and Greenwood Residents Association.

This was undertaken by way of a hard-copy cover letter and frequently asked questions sheet set to residents' addresses referring to an online survey form. The consultation was also advertised to the general public on the City's websites and social media, and via signage placed around the park. Respondents were able to contact the City for a hard-copy survey form if required.

### RESPONSE RATES

Hard-copy information was sent to 599 local residents/owners within a 200 metre radius of Kingsley Park and six were sent to park stakeholders/user groups.

The City collected a combined total of 12 responses. Of the 12 responses received, 12 were assessed as valid responses<sup>1</sup>. All 12 responses were received via the online survey.

Four of the 12 responses received are from a park user group which have been analysed separately under the Identified Stakeholders section of this report. A summary of the location of the eight community respondents is summarised in Table 1 below.

**Table 1: Responses by location of respondent**

Location of respondent (vicinity to park)	Responses	
	N	%
Respondent resides within 200m	7	87.5%
Respondent does not reside within 200m	1	12.5%
<b>Total (valid) responses</b>	<b>8</b>	<b>100%</b>

**QUESTION 1 – “The City is proposing to upgrade the sports floodlighting around the playing fields of Kingsley Park to meet the Australian Standards for football (all codes) up to amateur competition standard (AS2560.2.3) and the control of obtrusive light effects of outdoor lighting (AS4282). Please indicate your level of support for this proposal by ticking the most appropriate box below.”**

<sup>1</sup> N.b. a “valid” response is one which includes the respondent’s full contact details, they have responded within the advertised consultation period and for which multiple survey forms have not been submitted for the same household.

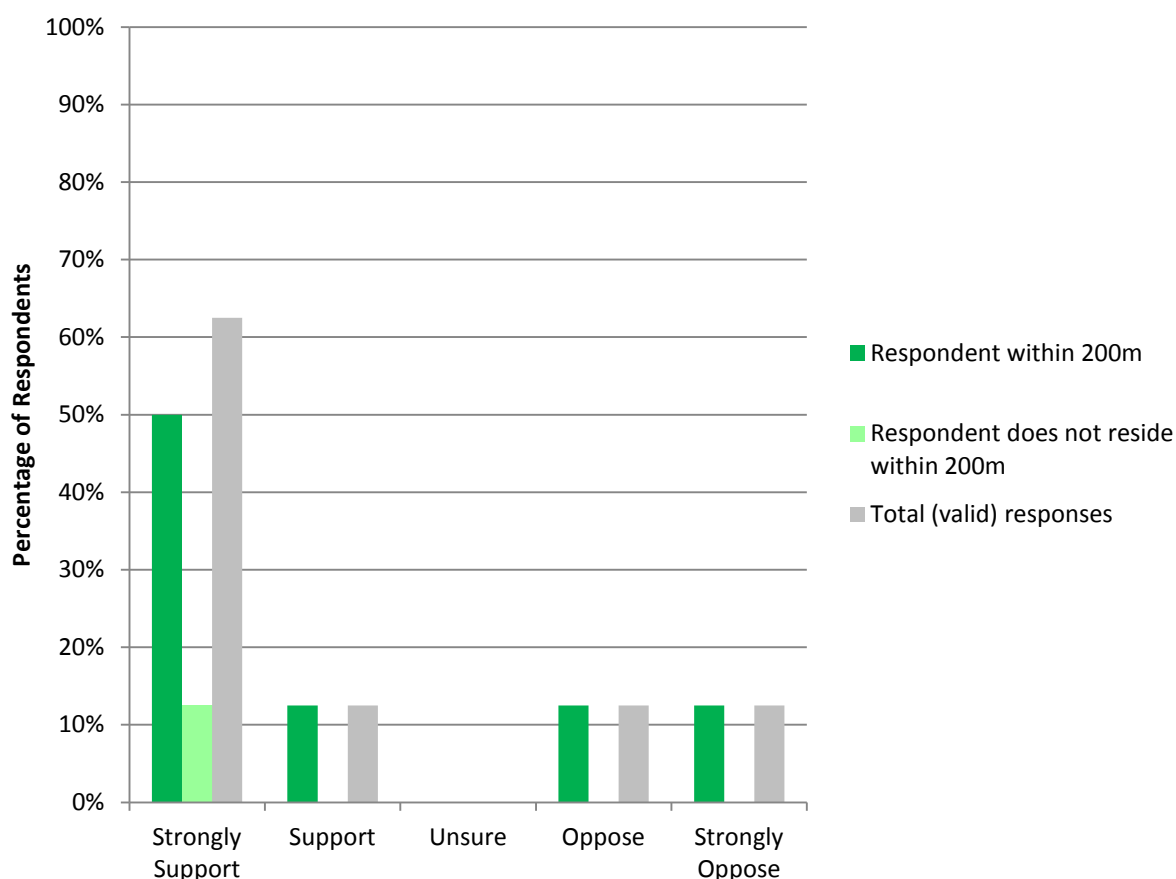
Respondents were asked to indicate their level of support for the installation of floodlights around the playing field of Kingsley Park on a 5-point scale (“strong support” to “strongly oppose”) for competition level Australian Standard sports floodlighting. 8 respondents have provided a response to this question.

Results have been analysed to determine the level of support for respondents within 200m of Kingsley Park, and respondents that do not reside within 200m. Overall 76.0% of respondents either supported or strongly supported the installations of Australian Standard sports floodlighting at Kingsley Park. The results have been summarised in Table 2 and Chart 1 below.

**Table 2: Level of support for the installation of Australian Standard sports floodlighting**

	Strongly Support		Support		Unsure		Oppose		Strongly Oppose	
	N	%	N	%	N	%	N	%	N	%
<b>Respondent resides within 200m</b>	4	50.0%	1	12.5%	0	0.0%	1	12.5%	1	12.5%
<b>Respondent does not reside within 200m</b>	1	12.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
<b>Total (valid) responses</b>	<b>5</b>	<b>62.5%</b>	<b>1</b>	<b>12.5%</b>	<b>0</b>	<b>0.0%</b>	<b>1</b>	<b>12.5%</b>	<b>1</b>	<b>12.5%</b>

**Chart 1: Level of support for the installation of Australian Standard sports floodlighting**



**QUESTION 2 – “IF YOU WOULD LIKE TO ELABORATE ON YOUR LEVEL OF SUPPORT FOR THE UPGRADE OF SPORTS FLOODLIGHTING AROUND THE PLAYING FIELD OF KINGSLEY PARK, PLEASE COMMENT BELOW.”**

Respondents were asked to provide comments to explain their support or opposition. Of the eight responses, eight provided comments in regard to the project. These comments are summarised in Table 3 and Table 4 below.

**Table 3: Summary of reasons of support for proposed sports floodlighting in Kingsley Park**

Reasons	Responses
	N
Support sport and an increase in physical activity	2
Support increased safety as a result of improved lighting	2
Support the project only if State Government funding is received	1
Request to position the floodlight poles in such a way to avoid removing trees	1
<b>Total comments made</b>	<b>6</b>

**Table 4: Summary of reasons for opposition to proposed sports floodlighting in Kingsley Park**

Reasons	Responses
	N
Concern over the need for new infrastructure given there is already existing infrastructure	2
Additional noise in the evening as a result of increased park usage	1
Inadequate parking facilities	1
Concern over height of poles being an ‘eyesore’	1
<b>Total comments made</b>	<b>5</b>

**QUESTION 3 – “DO YOU HAVE ANY ADDITIONAL COMMENTS ABOUT KINGSLEY PARK”**

Respondents were asked if they had any further comments in regards to Kingsley Park. A total of five respondents provided five comments. The results have been summarised in Table 5 below.

**Table 5: Summary of further comments provided by respondents<sup>3</sup>**

Reasons	Responses
	N
Would like floodlighting to be directed to light the cricket wicket nets	1
Club request to be consulted at critical milestones of the project	1
General positive commentary about Kingsley Park	1
Concern that the sporting clubs do not need the floodlighting upgrade	1
Would like additional drinking taps to be installed for general public at the park	1
<b>Total comments made</b>	<b>5</b>



## IDENTIFIED STAKEHOLDERS

Of the 12 valid responses received, six respondents stated that they were affiliated with an organisation/group that utilised Kingsley Park for a variety of activities. This data is summarised in Table 6 below.

**Table 6: Responses by respondent affiliation to identified user groups**

Identified user groups	Responses	
	N	%
Member of Kingsley Amateur Football Club	3	25%
Member of Kingsley Junior Football Club	1	8.3%
Member of Kingsley Woodvale Cricket Club	1	8.3%
Member of Kingsley Woodvale Junior Cricket Club	1	8.3%
Status not identified/None of these groups	6	50%
<b>Total (valid) responses</b>	<b>12</b>	<b>100%</b>

The official responses from the stakeholders, including the level of support for the proposed flooding and any additional comments, have been summarised in Table 7 below.

**Table 7: Responses from park user groups and stakeholders**

Park user group/Stakeholder	Level of support	Additional comments
Kingsley Amateur Football Club	Strongly support	<ul style="list-style-type: none"> <li>No additional comments.</li> </ul>
Kingsley Junior Football Club	Strongly support	<ul style="list-style-type: none"> <li>Require floodlighting to meet competition standards.</li> <li>Noted some concerns about proposed locations of the poles.</li> <li>Requested that Club is engaged with by the City at all project milestones.</li> </ul>
Kingsley Woodvale Cricket Club	Strongly support	<ul style="list-style-type: none"> <li>Request an additional light be installed on a floodlight pole to light the cricket practice nets.</li> </ul>
Kingsley Woodvale Junior Cricket Club	Strongly support	<ul style="list-style-type: none"> <li>No additional comments.</li> </ul>
Creaney Primary School	Did not provide a response	
Kingsley Greenwood Residents Association	Did not provide a response	