

UNIVERSITY OF ADELAIDE PLANT ACCELERATOR WAITE CAMPUS / ROOM DATA SHEET

Room No. **230 & 234** Level: Lv 1 / Lower Ground Lv 2 / Upper Ground Other

Room Name **RICE GREENHOUSE (PC2 OPERATIONAL) (COMPLETED)**

Contact Mark Tester Extension 0423784428

Briefed Area 46.5 sqm Hours of operation 24 hours

Windows: Yes Desirable No High Type of room population Student Staff Other

Ceiling Height 3.5 m truss soffit, 4.0 m pitch & 5.0 m ridge Acoustic separation Not Required

Door type / width 1000 + 1000 (1800 clear) Top Hung Double Sliding Doors with clear floor access

Door type / construction Sliding Metal Framed Door with transparent panel over robust panel to 900 mm

Description of usage:

Special requirement Greenhouse For Rice Growing

Relationship with other functions:

Nothing Special

Greenhouse Characteristics

<input type="checkbox"/> Conveyor Required	<input checked="" type="checkbox"/> Evaporative Cooling	Summer Design Max Internal Temp: 30.0°C Winter Design Min Internal Temp: 18.0°C Humidity Range: 90% max & 50% Min Air Velocity Range: Variable Comments: A/C & Evap cooling 18-30o Day Set point at +/-2o
<input type="checkbox"/> Imaging Required	<input checked="" type="checkbox"/> A/C	
<input checked="" type="checkbox"/> PC2 Operational	<input type="checkbox"/> Infra Red Required	
<input type="checkbox"/> PC2 Capable	<input type="checkbox"/> UV Required	
	<input type="checkbox"/> CO2 Required	

Individual environment control requirements

<input type="checkbox"/> Require individual environment control	Comments: One air handling unit per greenhouse and backup by onsite spare parts and portable plant.
<input checked="" type="checkbox"/> Ability to program daily temperature profiles	
<input checked="" type="checkbox"/> Ability to program artificial light operation times	

Ventilation

<input checked="" type="checkbox"/> Openable ridge section	<input type="checkbox"/> Fume Cupboard	Comments: Openable transparent section with insect mesh at ridge and automated. Confirm quantity. Face open panels to avoid winds, option for panels in east and west rooves to allow direction to suit winds, control by BAS / Weather Station.
<input type="checkbox"/> No Openable window	<input type="checkbox"/> Heat Rejection	
<input type="checkbox"/> Fume Exhaust	<input type="checkbox"/> Special exhausting	

Special Contamination Requirements

<input type="checkbox"/> Clean Room Standard	<input checked="" type="checkbox"/> AQIS Standard	Comments: Standard
<input type="checkbox"/> High Grade Filtration	<input type="checkbox"/> Other	
<input checked="" type="checkbox"/> PC2		

Acoustic Environment

<input checked="" type="checkbox"/> No requirement	<input type="checkbox"/> Standard meeting	Comments: No requirement
<input type="checkbox"/> Listening / teaching	<input type="checkbox"/> Standard office	
<input type="checkbox"/> Standard laboratory	<input type="checkbox"/> Other	

Power

<input type="checkbox"/> Normal	<input type="checkbox"/> 3 phase supply	Comments: Power outlets water proofed and mounted to dado wall at 900 mm top of outlet.
<input type="checkbox"/> Special	<input type="checkbox"/> Flame / spark proof	
<input type="checkbox"/> Cleaning Only	<input type="checkbox"/> UPS Connected	
<input type="checkbox"/> Clean Power	<input type="checkbox"/> EMF Sensitive	
<input type="checkbox"/> Emergency Shutdown	<input checked="" type="checkbox"/> All DGPO connected to Generator.	
3 x DGPO		
2 x DGPO with BMS control		

Cable Reticulation Location

<input type="checkbox"/> Ceiling	<input checked="" type="checkbox"/> Walls	Comments: Power outlets water proofed and mounted at 900 mm top of outlet
<input type="checkbox"/> Floor	<input type="checkbox"/> Duct Low	
<input type="checkbox"/> Duct High	<input type="checkbox"/> Tray	

Communications

<input checked="" type="checkbox"/> Comms	<input type="checkbox"/> Tele conference	Comments: 1 x Dual Comms point
<input type="checkbox"/> TV access	<input type="checkbox"/> Video conference	
<input type="checkbox"/> Special AV	<input type="checkbox"/> Public address	
	<input type="checkbox"/> Other	

Lighting

<input type="checkbox"/> Normal	Comments: Fluoro Night Light / weather proof Indicator light outside room to confirm Night Light illuminated. Additional Metal Halide with ballast and remote controls. Radiance levels 10 micromols / sqm / second.
<input checked="" type="checkbox"/> Special Lux Level	
<input checked="" type="checkbox"/> Programmable Controls	
<input type="checkbox"/> Special	

Blinds / Thermal Screening

<input type="checkbox"/> Blackout	<input type="checkbox"/> Venetian	<input type="checkbox"/> Rollerblind	Comments: Horizontal White Blind under roof to reduce day loads and night heat loss. Nominally 50% transmission. BMS controls to be enabled in response to environment parameters. BMS controls to be heavily dampened to avoid excessive movement. Glorified shade cloth on cables with motorised controls / One motor operating several glasshouses. Option for manual operation
<input checked="" type="checkbox"/> Thermal Screening	<input checked="" type="checkbox"/> Motorized and BMS controlled		

Specialised Gases

<input type="checkbox"/> CO2	<input type="checkbox"/> Natural Gas	<input type="checkbox"/> Nitrogen	Comments: No Requirement
<input type="checkbox"/> Compressed Air	<input type="checkbox"/> Other Gases		

Fire Safety

<input checked="" type="checkbox"/> Normal	Comments: Standard
<input type="checkbox"/> Early warning detection	
<input type="checkbox"/> Special suppression	

Fire Services

<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Smoke detectors	Extinguishers <input checked="" type="checkbox"/> Water <input type="checkbox"/> Special <input type="checkbox"/> CO2 To suit BCA
<input type="checkbox"/> No smoke detectors	<input type="checkbox"/> Sprinklers	
<input type="checkbox"/> VESDA		

Hydraulic Services

<input checked="" type="checkbox"/> Required	<input checked="" type="checkbox"/> 2 x RO water tap	Comments: Taps mounted to the dado and RO water to either sides of room. Allow for UOA supplied and operated portable Fogging Unit Require water supply to fogging unit BMS controlled Solenoids required behind one tap. Rainwater?
<input type="checkbox"/> Floor Waste	<input checked="" type="checkbox"/> Recycled/Blended Water	
<input checked="" type="checkbox"/> Floor Waste requires Screening & Bucket Trap	<input checked="" type="checkbox"/> 2 x Potable Water connection with double head taps	
<input type="checkbox"/> Oils/Solvent waste	<input checked="" type="checkbox"/> AQIS water Containment	
<input type="checkbox"/> Process Use Water		
<input type="checkbox"/> Chemical Waste		
<input type="checkbox"/> Emergency Shr		
<input type="checkbox"/> Eye Wash		

Special floor loadings / details

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Comments: Require 100mm diameter sealable hole for future services near the perimeter Wall
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Security

<input checked="" type="checkbox"/> Lockable <input type="checkbox"/> Keypad <input type="checkbox"/> Proximity <input type="checkbox"/> CCTV	Comments: IP Camera (by U of A) can use data outlet if required
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Locking Latch Key Proximity in Proximity out Magnetic Special

Floor Covering:

Sealed Concrete finish to avoid water penetration and avoid excessive maintenance / reapplication requirements. Internal Geenhouse Walls unlikely to be relocated. UOA to confirm SARDI Specification.
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Ceiling Not required Timber Acoustic Tile Painted Concrete Glass Acrylic Other

Wall Finish Twin wall polycarb walling with some sections of vision glazing to corridor for visitor. Over sealed precast concrete dado, top of dado at 900 mm

Target Wall STC None 25 35 45 55 65 85

Audio Visual / Display

<input checked="" type="checkbox"/> No requirement	<input type="checkbox"/> Speakers	<input type="checkbox"/> Slides	
<input type="checkbox"/> Pinboard	<input type="checkbox"/> Monitor	<input type="checkbox"/> CD Player	
<input type="checkbox"/> Whiteboard	<input type="checkbox"/> Amp / speakers	<input type="checkbox"/> DAT	
<input type="checkbox"/> Data Projector	<input type="checkbox"/> Elec. Whiteboard	<input type="checkbox"/> VCR	
<input type="checkbox"/> AV Screen	<input type="checkbox"/> Smart Board		

Signage:

Room Name and Number on Door

Furniture, Fittings and Equipment:

REQUIRES REVIEW with ROBIN 15 (700H x 1800L x 850W) Steel benches with mesh tops + Trays

Special Services Notes / Built in joinery / fixed fittings: Not required