LUMINAIRE AIMING NOTES

1. THE ELECTRICAL CONTRACTOR IS TO ALLOW FOR FINAL MEASUREMENT AND RECORDING OF HORIZONTAL ILLUMINANCE AND UNIFORMITIES ON THE PITCH IN ACCORDANCE WITH AS 2560.2 'SPECIFIC APPLICATIONS' & AS 2560.2.3 'LIGHTING TECHNICAL PARAMETERS FOR ALL OPERATIONAL LEVELS AS PART OF LIGHTING MEASUREMENT'. THIS IS TO BE CONDUCTED AND VERIFIED WITH JEAN-PAUL KIRKLAND LIGHTING DESIGN.

2. THE ELECTRICAL CONTRACTOR SHALL ALLOW FOR ON SITE NIGHT AIMING OF THE LUMINAIRES TO MAKE ADJUSTMENTS BASED ON PRELIMINARY LUX MEASUREMENTS.

3. FINAL LUX LEVEL MEASUREMENTS IS TO BE CONDUCTED AT NIGHT AND BE WITNESSED AND VERIFIED BY JEAN-PAUL KIRKLAND LIGHTING DESIGN.

4. NEW SPORTS LIGHTING TO BE FITTED WITH LIGHTING CONTROL SYSTEM, TIMECLOCK AND AUTOMATICALLY SHUT-OFF AT THE CURFEW TIME TYPICALLY 10PM (CLIENT TO CONFIRM CURFEW TIME). PROGRAMMER TO INCLUDE FLASHING LIGHT WARNING TO NOTIFY USERS THAT THE LIGHTS WILL SWITCH OFF WITHIN 10 MINUTES OF PROGRAMMED TIMING.

5. LIGHTING TO HAVE THE FOLLOWING PROGRAMMING MODES:
   MODE 1 - COMPETITION 100 LUX.
   MODE 2 - TRAINING 50 LUX.
   MODE 3 - RECREATIONAL 20 LUX
   MODE 4 - OFF

   FOR FUTURE UPGRADE TO 200 LUX, A QUALIFIED PROGRAMMER IS TO BE ENGAGED TO REPROGRAM THE LIGHTING TO THE FOLLOWING RECOMMENDED SETTINGS:
   MODE 1 - COMPETITION 200 LUX.
   MODE 2 - TRAINING 100 LUX.
   MODE 3 - RECREATIONAL 20 LUX
   MODE 4 - OFF

6. NEW SPORTS LIGHTING TO HAVE MOTION SENSOR BOSCH – DINION 5100IR CODE NBE-5704-AL BULLET 8MP HDR 3.2-10.5MM IP66 IK10 OR COUNCIL APPROVED EQUIVALENT. REFER TO WHITEHORSE CITY COUNCIL PROJECT MANAGER FOR DETAILS AND NOMINATED LIGHTING LUX LEVEL REQUIREMENT.

DESIGN NOTES

D1 EXISTING ELECTRICAL SERVICES PIT FED FROM FOR POWER CONNECTION FOR THE NEW NORTHERN SPORTS FLOODLIGHTING AND SCOREBOARD. EXISTING POWER CONNECTION IS FED FROM DB-FL2 LOCATED IN THE BASEMENT SERVICES ROOM.

D2 EXISTING ELECTRICAL SERVICES PIT FOR POWER CONNECTION FOR THE NEW SOUTHERN SPORTS FLOODLIGHTING AND SCOREBOARD. POWER CONNECTION IS FED FROM DB-FL1 LOCATED IN THE BASEMENT SERVICES ROOM.

D3 EXISTING ELECTRICAL SERVICES PIT FOR POWER CONNECTION FOR NEW JUNIOR PITCH, WESTERN OVAL SPORTS FLOODLIGHTING AND SCOREBOARD. POWER CONNECTION IS FED FROM DB-FL3 & DB-FL4 LOCATED IN THE BASEMENT SERVICES ROOM.

D4 EXISTING SPORTS FLOODLIGHTING POLE, POLE FOOTING AND UNDERGROUND ELECTRICAL CONDUIT / POWER CONNECTION TO BE DEMOLISHED. THE DEMOLISHED SPORT LIGHTING INFRASTRUCTURE TO BE DISPOSED OF TO SUIT WHITEHORSE CITY COUNCIL REQUIREMENTS.

D5 NEW UNDERGROUND CONDUIT FOR SPORTS FLOODLIGHTING TO NORTHERN OVAL TO BE UNDERGROUND BORED UNDER EXISTING ROAD. CONTRACTOR TO CONFIRM LOCATION OF EXISTING UNDERGROUND SERVICES PRIOR TO BORING WORKS. CONDUITS TO BE PROVIDED WITH DRAW WIRES FOR FUTURE UPGRADES.

D6 NEW UNDERGROUND CONDUIT FOR SPORTS FLOODLIGHTING TO AVOID UNDERGROUND SERVICES. CONTRACTOR TO CONFIRM LOCATION OF EXISTING UNDERGROUND SERVICES PRIOR TO TRENCHING WORKS. CONDUITS TO BE PROVIDED WITH DRAW WIRES FOR FUTURE UPGRADES.

D7 NEW UNDERGROUND CONDUIT FOR SPORTS FLOODLIGHTING TO FOLLOW EXISTING OVAL PLAYING AREA. CONTRACTOR TO CONFIRM PROPOSED ROUTE AND CONFIRM LOCATION OF EXISTING UNDERGROUND SERVICES PRIOR TO TRENCHING WORKS. CONDUITS TO BE PROVIDED WITH DRAW WIRES FOR FUTURE UPGRADES.

D8 EXISTING SPORTS FLOODLIGHTING WALL MOUNTED BOX TO BE DEMOLISHED AND REPLACED WITH NEW SPORTS LIGHTING LIGHTING CONTROL SYSTEM.

D9 NEW LIGHTING CONTROL CONNECTION TO RUN WITHIN NEW PAVILION CEILING SPACE. ELECTRICAL CONTRACTOR TO SITE INVESTIGATE SUITABLE ROUTE PRIOR TO INSTALLATION.

D10 POWER PROVISION FOR FUTURE SCOREBOARD. CONTRACTOR TO CONFIRM PROPOSED ROUTE AND CONFIRM LOCATION OF EXISTING UNDERGROUND SERVICES PRIOR TO TRENCHING WORKS. CONDUITS TO BE PROVIDED WITH DRAW WIRES FOR FUTURE UPGRADES.

GENERAL NOTES

1 EXISTING SERVICES LOCATIONS
BEWARE OF UNDERGROUND SERVICES. THE LOCATION OF UNDERGROUND SERVICES IS NOT KNOWN. CONDUCT DIAL BEFORE YOU DIG TO VERIFY EXTENT OF EXISTING UTILITY SERVICES PRIOR TO COMMENCEMENT OF WORK. EXACT POSITIONS SHALL BE PROVEN ON SITE.

2 NEW WORKS SETOUT
NEW EQUIPMENT LOCATIONS ARE APPROXIMATE ONLY.
OBTAIN APPROVED SETOUTS ON SITE FOR LIGHTING AND ELECTRICAL SERVICES EQUIPMENT PRIOR TO INSTALLATION. DO NOT SETOUT OR SCALE FROM LIGHTING & ELECTRICAL SERVICES DRAWINGS.

3 IN THE CASE OF ASSETS OF THE ELECTRICITY DISTRIBUTION BUSINESS OR COMMUNICATIONS CARRIERS, LIAISE WITH THE RESPONSIBLE BODY TO ENSURE SUCH ASSETS ARE ACCOMMODATED IN COMPLIANCE WITH THE RESPECTIVE REQUIREMENTS., IN PARTICULAR CLEARANCES TO OTHER SERVICES.
PRIOR TO SITE INSTALLATION, VERIFY THE PROPOSED METHOD OF INSTALLATION CONFORMS TO THE RESPECTIVE UTILITY CONSTRUCTION STANDARDS .

4 ASSET LOCATION RECORDING
RECORD THE EXACT LOCATIONS OF UNDERGROUND SERVICES WITH TRIANGULATED REFERENCE TO PERMANENT SITE FEATURES AND RECORD ON THE AS-BUILT DRAWINGS. IN THE CASE OF UTILITY ASSETS COMPLY WITH THE SERVICE RECORDING REQUIREMENTS OF THE RESPECTIVE UTILITY.
RECORD LOCATIONS OF OTHER SERVICES CROSSED AND DISCOVERED IN THE COURSE OF CARRYING OUT THE PROPOSED WORKS ALL TO ELECTRICITY DISTRIBUTION BUSINESS RECORDING STANDARDS SUITABLE FOR 1100 MOCS ENTRY.

5 SURFACE MARKING
PROVIDE PERMANENT CABLE SURFACE MARKERS, AT EACH CHANGE OF DIRECTION AND ELSEWHERE AT LEAST EVERY 30M OF RUN.

6 CONDUIT REQUIREMENTS
PROVIDE ALL UNDERGROUND CONDUITS AS CATEGORY A UPVC ORANGE RIGID HEAVY DUTY TO AS.2053 C/W DRAW WIRE AND SEALED EACH END AT INSTALLATION COMPLETION. SANDWICH CONSTRUCTION OR CORRUGATED TYPES ARE NOT ACCEPTABLE. PVC CONDUITS MUST BE JOINED WITH PVC SOLVENT CEMENT.
ALL BENDS TO MINIMUM RADIUS UNLESS OTHERWISE APPROVED.

7 CONDUIT SEALING
SEAL ENDS OF CONDUITS AT WORKS COMPLETION WITH SUITABLE END CAPS OR PLUGS OF NON-PERISHABLE MATERIALS. SEAL AROUND ALL PIT, POLE AND ELECTRICAL ENCLOSURE PENETRATIONS TO EXCLUDE WATER AND VERMIN.

8 CONDUIT & CABLE MINIMUM SIZES
MINIMUM CONDUIT SIZE IS 40mm. MINIMUM CABLE SIZE IS 6mm² INCLUDING FINAL CIRCUITS TO EACH FLOODLIGHT.

9 PROTECTION OF EXISTING ASSETS
INSTALL ALL WORKS TO AVOID UNDERMINING OR DISRUPTION TO EXISTING UNDERGROUND SERVICES. LIAISE WITH RESPECTIVE UTILITIES TO ENSURE PROTECTION OF EXISTING ASSETS THROUGHOUT THE PROPOSED WORKS AND MAINTENANCE OF CLEARANCE REQUIREMENTS.

10 INSPECTION PRIOR TO BACKFILLING
ENSURE INSPECTION OF UNDERGROUND CONDUITS AND PITS PRIOR TO BACKFILLING.

11 IF DURING CABLING INSTALLATION IT BECOMES APPARENT A CONDUIT IS WRONGLY POSITIONED OR PREVENTS FREE PASSAGE OF CABLES IT, THE RESPECTIVE CONDUIT(S) SHALL BE MADE GOOD.

12 LUMINAIRE APPROVAL
LUMINAIRES SHALL BE SUBMITTED AS A CURRENT SPECIFICATION DATASHEET AND APPROVED PRIOR TO ORDER. ALTERNATIVE LUMINAIRE MAY REQUIRE A PHYSICAL SAMPLE TO BE PRESENTED TO THE CLIENT FOR FINAL APPROVAL.

13 MAINTAIN OPERATIONAL SECURITY LIGHTING
CONDUCT ALL WORKS TO ENSURE MAINTENANCE OF PUBLIC SECURITY LIGHTING AT ALL TIMES THROUGHOUT THE PROGRESS OF THE WORKS.

14 DAMAGE TO EXISTING SERVICES
ANY DAMAGE TO EXISTING SERVICES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE SUPERINTENDENT WHERE THE LOCATION OF THE SERVICE CONCERNED CAN BE REASONABLY ESTABLISHED VIA MOCS 1100 ENQUIRY, NO GO ZONE ASSESSMENT OR SERVICES LOCATION INSTRUMENT SURVE.Y ALONG A PROPOSED UNDERGROUND SERVICES ROUTE.

15 ATTEND ON ELECTRICAL WORKS BY CIVIL WORKS CONTRACTORS.
FOR ANY SECTIONS OF ELECTRICAL INSTALLATION WORKS UNDERTAKEN BY CIVIL WORKS CONTRACTOR(S), THE ELECTRICAL CONTRACTOR TO ATTEND TO ENSURE CORRECT PLACEMENT AND PROVISIONING TO BEST SERVE THE ELECTRICAL SERVICES INSTALLATION.

FOOTBALL (SOCCER) LIGHTING DESIGN BASIS

AUSTRALIAN STANDARDS AS/NZS 2560.2: 2021
SPORTS LIGHTING, PART 2: SPECIFIC APPLICATIONS

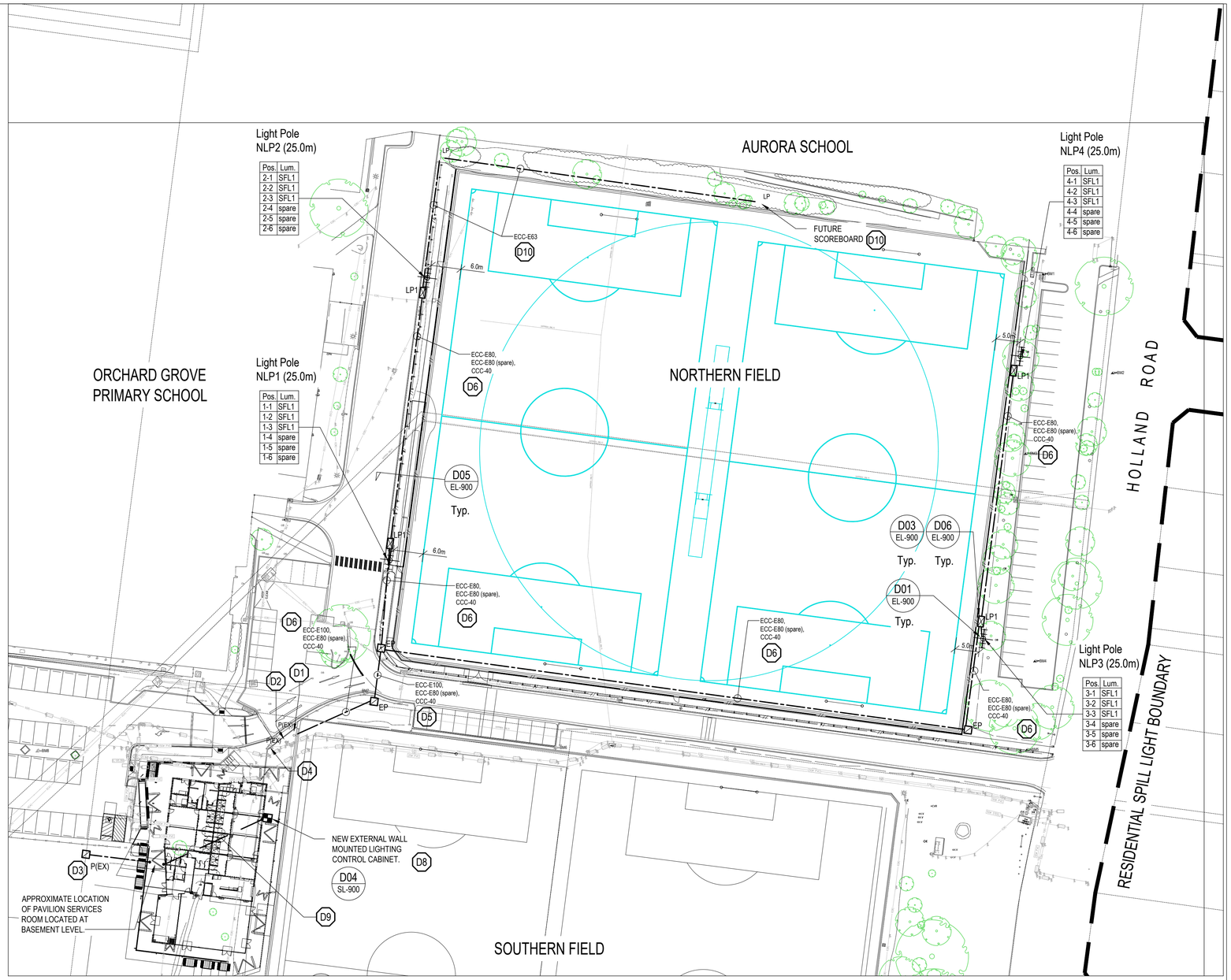
AMATEUR LEVEL
50 LUX FOR BALL & PHYSICAL TRAINING
100 LUX FOR CLUB COMPETITION & MATCH PRACTICE

SEMI-PROFESSIONAL LEVEL
50 LUX FOR BALL & PHYSICAL TRAINING
100 LUX FOR CLUB MATCH PRACTICE
FUTURE 200 LUX FOR SEMI-PROFESSIONAL COMPETITION

PROFESSIONAL LEVEL
100 LUX FOR BALL & PHYSICAL TRAINING
FUTURE 200 LUX FOR MATCH PRACTICE

TENDERERS MUST VISIT SITE PRIOR TO TENDER SUBMISSION. SETOUT ON SITE LOCATIONS OF ALL EQUIPMENT & EXPOSED SERVICES WITH SUPERINTENDENT PRIOR TO COMMENCEMENT

NOT FOR CONSTRUCTION



REV	DESCRIPTION	DRAWN	APP'D	DATE
02	TENDER ISSUE	JPK	JPK	25.08.2026
01	TENDER ISSUE - CLIENT REVIEW	JPK	JPK	19.04.2026

WHITEHORSE CITY COUNCIL

CLIENT: WHITEHORSE CITY COUNCIL

PROJECT ADDRESS: **MIRRABOOKA RESERVE**
80-140 Holland Road,
Blackburn South VIC 3130

PROJECT: MIRRABOOKA RESERVE
SOCCER SPORTS LIGHTING
UPGRADE PROJECT

TITLE: SPORTS LIGHTING LAYOUT
STAGE 1 - NORTHERN FIELD
(SYNTHETIC)

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TENDER ISSUE

LIGHTING & ELECTRICAL SERVICES

SCALE @ A1	PROJECT No	DRAWING No	REV
1:500		EL-100	02