

BONBEACH SPORTS RESERVE - OVAL 1

DRAWING SCHEDULE

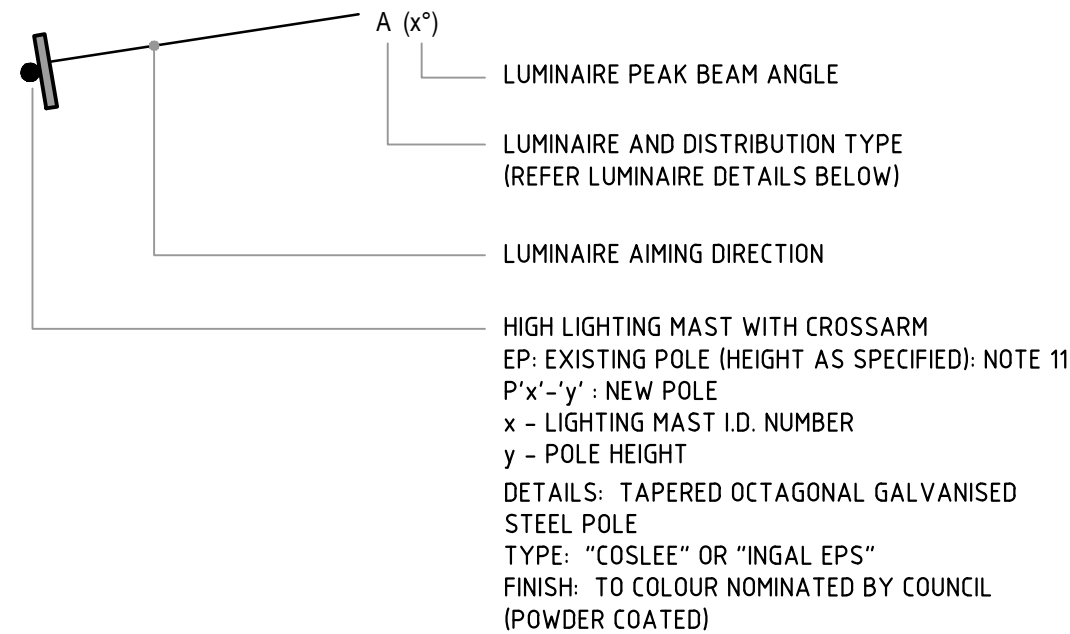
DWG No	DESCRIPTION
M223B ES-01	OVAL 1 - LEGEND, NOTES AND LIGHTING LAYOUT
M223B ES-02	OVAL 1 - SINGLE LINE DIAGRAM AND DETAILS
M223B LC-01	OVAL 1 - ILLUMINANCE CALCULATION - 100 LUX
M223C ES-01	OVAL 2 - LEGEND, NOTES AND LIGHTING LAYOUT
M223C ES-02	OVAL 2 - SINGLE LINE DIAGRAM AND DETAILS
M223C LC-01	OVAL 2 - ILLUMINANCE CALCULATION - 100 LUX

IMAGES



IMAGE 1 : OPTIVISION MVP507

LEGEND OF SYMBOLS

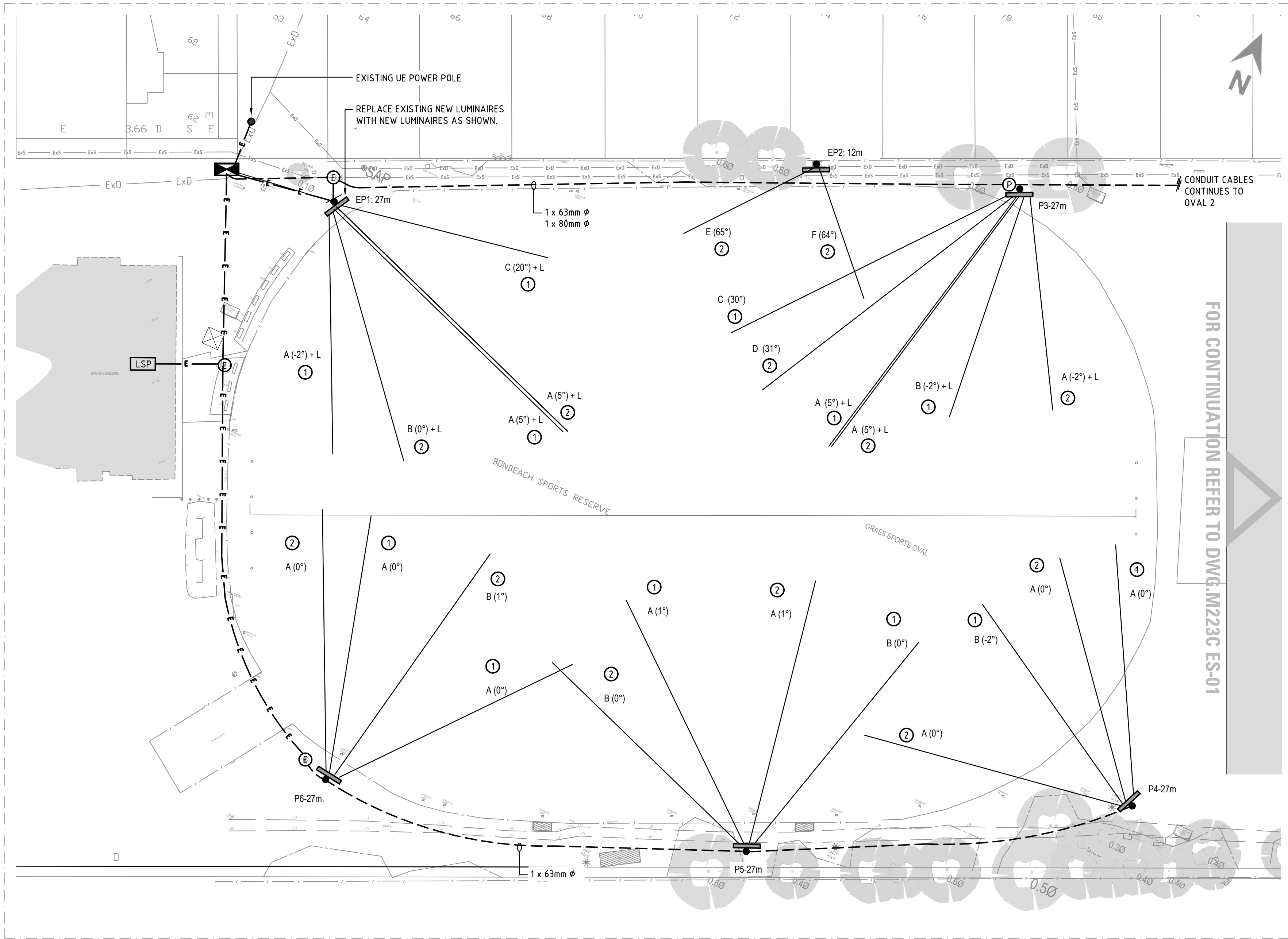


LUMINAIRE PEAK BEAM ANGLE
LUMINAIRE AND DISTRIBUTION TYPE
(REFER LUMINAIRE DETAILS BELOW)
LUMINAIRE AIMING DIRECTION

HIGH LIGHTING MAST WITH CROSSARM
EP: EXISTING POLE (HEIGHT AS SPECIFIED): NOTE 11
P'x'-y': NEW POLE
x - LIGHTING MAST I.D. NUMBER
y - POLE HEIGHT
DETAILS: TAPERED OCTAGONAL GALVANISED
STEEL POLE
TYPE: "COSLEE" OR "INGAL EPS"
FINISH: TO COLOUR NOMINATED BY COUNCIL
(POWDER COATED)

A (x°)	2kW (220,000 LUMEN) METAL HALIDE IP65 FLOODLIGHT WITH NARROW BEAM ASYMMETRICAL DISTRIBUTION LUMINAIRE : "PHILIPS" - OPTIVISION MVP507 CODE : MVP507 NB/60
A (x°) + L	SAME AS TYPE 'A', EXCEPT WITH REAR LOURVE L : INDICATES WITH REAR LOURVE
B (x°)	2kW (220,000 LUMEN) METAL HALIDE IP65 FLOODLIGHT WITH MEDIUM BEAM ASYMMETRICAL DISTRIBUTION LUMINAIRE : "PHILIPS" - OPTIVISION MVP507 CODE : MVP507 MB/60
B (x°) + L	SAME AS TYPE 'B', EXCEPT WITH REAR LOURVE L : INDICATES WITH LOURVE
C (x°)	1.5kW (212,481 LUMEN) LED IP65 FLOODLIGHT WITH SYMMETRICAL NARROW (S6) BEAM DISTRIBUTION C/W LOURVE LUMINAIRE : "PHILIPS" - OPTIVISION BVP527 CODE : BVP527 S6 + ZVP420L
D (x°)	1.5kW (212,481 LUMEN) LED IP65 FLOODLIGHT WITH SYMMETRICAL MEDIUM (S8) BEAM DISTRIBUTION C/W LOURVE LUMINAIRE : "PHILIPS" - OPTIVISION BVP527 CODE : BVP527 S8 + ZVP420L
E (x°)	1kW (100,000 LUMEN) METAL HALIDE IP65 FLOODLIGHT WITH SYMMETRICAL SEMI-DIFFUSED BEAM DISTRIBUTION LUMINAIRE : "VERSALUX SPORTZ" CODE : SPORTZ.SD.MHTS.1000
F (x°)	1kW (100,000 LUMEN) METAL HALIDE IP65 FLOODLIGHT WITH SYMMETRICAL DIFFUSED BEAM DISTRIBUTION LUMINAIRE : "VERSALUX SPORTZ" CODE : SPORTZ.D.MHTS.1000
x°	LUMINAIRE TILT ANGLE

---	NEW BORED UNDERGROUND CONDUIT ROUTE (QUANTITIES AND SIZES AS SHOWN)
—E—E—E—	EXISTING UNDERGROUND CONDUIT
ⓔ	EXISTING ELECTRICAL PIT
Ⓜ	EXISTING MAIN SWITCHBOARD AND METERING CUBICLE TO BE REPLACED. REFER SINGLE LINE DIAGRAM ON DWG.ES-02 FOR DETAILS.
LSP	EXISTING LIGHTING CONTROL SWITCH PANEL
①	CONTROLLED BY SWITCH 1
②	CONTROLLED BY SWITCH 2



SITE PLAN - LIGHTING LAYOUT

SCALE 1:500

NOTES

- CONDUIT ROUTES SHOWN ARE INDICATIVE ONLY. EXACT CONDUIT ROUTES TO BE DETERMINED DURING CONSTRUCTION TO SUIT SITE CONDITIONS. OBTAIN APPROVAL FOR CONDUIT ROUTES FROM COUNCIL PRIOR TO INSTALLATION.
- PROVIDE ENGRAVED ASSET ID PLATE AT EACH NEW POLE WITH THE FOLLOWING INFORMATION :
 - MANUFACTURER
 - REFERENCE/CATALOGUE NUMBER
 - POLE NUMBER
 - LUMINAIRE MAKE AND MODEL
 - POLE HEIGHT
 - MAXIMUM FLOODLIGHT CAPACITY
 - TEXT SIZE : 120mm HIGH
- NEW LIGHT POLES, CROSS-ARMS AND FOOTINGS TO HAVE CAPACITY FOR FUTURE ADDITION OF 4 x 2kW MH LUMINAIRES. ALLOW FOR FUTURE MH LUMINAIRES TO HAVE 50% ADDITIONAL WEIGHT AND SAIL AREA THAN SPECIFIED MH LUMINAIRES.
- NEW CONDUIT CAN BE INSTALLED BY DIRECTIONAL BORE OR TRENCHING (TENDERERS TO NOMINATE PREFERRED OPTION).
- ALL EXPOSED EXTERNAL CABLES (eg. FROM POLES TO LUMINAIRES) TO BE ENCLOSED IN STEEL SHEATHED FLEXIBLE CONDUIT, EQUAL TO ADAPTASTEEL SP.
- PROVIDE SURGE PROTECTION WITHIN EACH LIGHT POLE BASE DB (EQUIVALENT TO NHP PSM-20kA).
- INCIDENTAL WORK : THE WORK SHALL INCLUDE ALL NECESSARY MINOR AND INCIDENTAL WORK REQUIRED TO PROVIDE A COMPLETE AND FULLY FUNCTIONING ELECTRICAL SERVICES INSTALLATION WHICH IMPLEMENTS THE INTENT AND REQUIREMENTS OF THE DESIGN DRAWINGS.
- SUPPLY ALL LABOUR, MATERIAL AND EQUIPMENT, WHETHER MENTIONED IN DETAIL OR NOT, REQUIRED TO LEAVE THE INSTALLATION IN FULL WORKING ORDER.
- ALL LUMINAIRE CONTROL GEAR WITHIN LIGHT POLES TO BE LOCATED BEHIND UPPER ACCESS HATCH, TO CLEAR MELBOURNE WATER'S NOMINATED FLOODPLAIN HEIGHT (15m AGL).
- REPLACE EXISTING LUMINAIRES ON EXISTING POLES WITH NEW LUMINAIRES AS SHOWN.

SCOPE OF WORKS

THE SCOPE OF WORKS FOR THIS PROJECT INCLUDES :

- PROVIDE SEPARATE PRICING OPTIONS (AS PER SPECIFICATION TENDER SCHEDULES) FOR THE FOLLOWING OPTIONS:
 - OVAL 1 LIGHTING UPGRADE ONLY (INCLUDING SUPPLY UPGRADE & NEW MAIN SWITCHBOARD)
 - OVAL 2 LIGHTING UPGRADE ONLY (INCLUDING SUPPLY UPGRADE & NEW MAIN SWITCHBOARD)
 - OVAL 1 & 2 LIGHTING UPGRADES.
- LIAISE WITH UNITED ENERGY TO FACILITATE UPGRADE OF EXISTING ELECTRICITY SUPPLY TO NEW ELECTRICAL PILLAR (IN ACCORDANCE WITH SUPPLY AGREEMENT BETWEEN UE AND THE CITY OF KINGSTON COUNCIL).
- LIAISE WITH THE COUNCIL'S ELECTRICITY RETAILER TO ARRANGE CONNECTION OF NEW METERS, INCLUDING SUBMISSION OF ALL DOCUMENTATION (CES, EWR ETC.), TRUCK APPOINTMENTS AND ALL ASSOCIATED WORKS.
- ARRANGE FOR ABOLISHMENT OF EXISTING SERVICE AND REMOVAL OF EXISTING EXISTING SITE MSB.
- NEW SITE MSB & METERING CUBICLE (REFER SINGLE LINE DIAGRAM ON ES-02 FOR DETAILS).
- NEW ELECTRICAL PILLAR FOR OVAL 2.
- NEW UNDERGROUND CONDUIT AND CABLING FOR SPORTS LIGHTING.
- CONNECT NEW OVAL 1 LIGHTING TO EXISTING LIGHTING CONTROLS WITHIN PAVILION (INCLUDING NEW CONTROL CABLING TO NEW LIGHTING POLES P2-P6).
- NEW LIGHTING CONTROLS FOR OVAL 2, INCLUDING CABLING AND EQUIPMENT AS REQUIRED TO MAKE LIGHTING CONTROLS OPERATIONAL.
- NEW CONDUIT AND CABLE ENTRIES TO NEW LIGHT POLES.
- NEW LIGHT POLES, LUMINAIRES AND ASSOCIATED ITEMS.
- FOOTINGS FOR NEW LIGHT POLES.
- AIMING OF NEW LUMINAIRES, INCLUDING INITIAL AIMING TO BE CARRIED OUT DURING DAY LIGHT HOURS AND FINAL AIMING TO BE CARRIED OUT AT NIGHT.
- TESTING AND COMMISSIONING OF LIGHTING SYSTEM UPON COMPLETION OF WORKS, INCLUDING FINAL AIMING TO ACHIEVE REQUIRED ILLUMINANCE LEVELS AND UNIFORMITY.
- AS-BUILT DRAWINGS, OPERATION AND MAINTENANCE MANUALS.

ISSUE	REVISION	DATE	REVIEW	APPROVED
C3	POLE P4 RELOCATED	18.11.20	P.M.	R.H.
C2	REVISED LIGHTING DESIGN	18.11.20	P.M.	R.H.
C1	FOR CONSTRUCTION	29.09.20	P.M.	R.H.



CONSULTING ELECTRICAL ENGINEERS LIGHTING CONSULTANTS TECHNOLOGY CONSULTANTS

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CITY OF KINGSTON



PROJECT
BONBEACH OVAL 1
SPORTING FLOODLIGHTING

DRAWING
ELECTRICAL SERVICES
LEGEND, NOTES AND LIGHTING LAYOUT

DATE SCALE D R A
04.12.20 1:500 [A1] JD PM WPH

PROJECT DWG NO REVISION NO IN SET
M223B ES-01 C3 -

STATUS
CONSTRUCTION

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