

# TUMUT MULTIPURPOSE & EVACUATION CENTRE

## ELECTRICAL SERVICES

CONTRACTORS MUST VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK OR PREPARING SHOP DRAWINGS

All Architectural drawing sheets to be cross-referenced with other relevant disciplines.

Rev	Description	Date
A	ISSUE FOR TENDER	23.04.25
B	TENDER ISSUE	05.06.25

### DRAWING LIST

DRAWING No.	DRAWING DESCRIPTION
E-00	LEGEND & COVER SHEET
E-01	LIGHTING & DRY FIRE DETECTION LAYOUTS SHEET 01
E-02	LIGHTING & DRY FIRE DETECTION LAYOUTS SHEET 02
E-03	POWER, COMMS & SECURITY LAYOUTS SHEET 01
E-04	POWER, COMMS & SECURITY LAYOUTS SHEET 02
E-05	ELECTRICAL DETAILS SHEET No 1
E-200	SITE SERVICES & CARPARK LIGHTING LAYOUT
E-300	MAIN SWITCHBOARD SINGLE LINE DIAGRAM
E-301	TELECOMMUNICATIONS SCHEMATICS
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E-303	DISTRIBUTION BOARD SCHEMATICS & TYPICAL DETAILS
E-304	PV SYSTEM GENERAL SCHEMATIC

### LIGHTING LEGEND

	LIGHT SWITCH & SWITCHWIRE. 2W - DENOTES 2 WAY SWITCH. K - DENOTES KEY OPERATED SWITCH WITH RED LED INDICATOR WP - DENOTES IP56 RATED SWITCH
	FLUSH MOUNTED MULTITANG LIGHT SWITCH PANEL WITH STAINLESS STEEL FACEPLATE & ENGRAVED LABELING.
	LIGHTING CONTROL SYSTEM INTELLIGENT TOUCHSCREEN (CRUS OR KNX). REFER SPECIFICATION FOR FURTHER DETAILS.
	1x40W 1x20W SURFACE MOUNTED LED BATTEN FITTING COMPLETE WITH ACRYLIC WRAP AROUND DIFFUSER. INTEGRAL DRIVER. 4000K LAMPS. ☉ - DENOTES FITTING CONTAINING EMERGENCY BATTERY PACK COMPLYING WITH AS2293.1.
	1x36W 1x18W LED IP65 RATED LUMINAIRE COMPLETE WITH POLYCARBONATE DIFFUSER, STAINLESS STEEL DIFFUSER CLIPS & INTEGRAL LED DRIVER SULAND CAT No SL-2218B OR APPROVED EQUIVALENT. ☉ - DENOTES LUMINAIRE PROVIDED WITH EMERGENCY PACK COMPLYING WITH AS2293.1. W/M - DENOTES FITTING IS WALL MOUNTED AT 2700mm AFFL.
	2W RECESSED LED EMERGENCY LUMINAIRE COMPLETE LARGE REFLECTOR, IP65 RATING LIFE PHOSPHATE BATTERY PACK, & CHARGER IN NON-MAINTAINED MODE. EKTOR CAT No LEDFIRE OR APPROVED EQUIVALENT. S/M - DENOTES SURFACE MOUNTED EMERGENCY LIGHT COMPLETE WITH SURFACE MOUNTING BOX
	1x4W EXIT SIGN WITH LIFE PHOSPHATE BATTERY PACK LED LAMP & CHARGER IN SUSTAINED MODE. EKTOR CAT No RAZOR CORE OR APPROVED EQUIVALENT. WP - DENOTES IK10 VANDAL RESISTANT RATING EXIT WITH POLYCARBONATE BODY EKTOR MERCURY SURFACE MOUNT VPQLED OR APPROVED EQUIVALENT. D - DENOTES DOUBLE SIDED FITTING. ◀ - DENOTES DIRECTIONAL ARROW. WG - DENOTES EXIT SIGN FITTED WITH PROTECTIVE WIRE GUARD WITH WHITE POWDERCOAT FINISH
	CEILING MOUNTED MOTION SENSOR LIGHT SWITCH. 360° FIELD OF VIEW & ADJUSTABLE TIME OUT
	1x15W RECESSED FIXED LED LUMINAIRE WITH IP65 RATING, WHITE TRIM, FACETTED REFLECTOR, WIDE ANGLE BEAM OUTPUT, 4000K LAMP & INDIVIDUAL DRIVER/CONTROLLER. TREND LIGHTING MDILED XDF15 OR APPROVED EQUIVALENT. 24HR - DENOTES LUMINAIRE CONNECTED TO 24HR SECURITY CIRCUIT
	1x15W RECESSED FIXED LED LUMINAIRE WITH IP65 RATING, WHITE TRIM, FACETTED REFLECTOR, WIDE ANGLE BEAM OUTPUT, 4000K LAMP & INDIVIDUAL DRIVER/CONTROLLER. TREND LIGHTING MDILED XDF15 OR APPROVED EQUIVALENT.
	1x28W WALL MOUNTED LED LUMINAIRE WITH INTEGRAL DRIVER, IP65 RATING, 4000K LAMP COLOUR, CHARCOAL POWDERCOAT FINISH, EXTRA WIDE BEAM PHOTOMETRICS. INSTALLED AT 2700mm AFFL. UNLESS NOTED OTHERWISE. LIGMAN "VECTOR 1" CAT No. VK-3002 OR APPROVED EQUIVALENT.
	1x27W RECESSED IP44 RATED LED TROFFER SUITABLE FOR FOOD PREPARATION AREAS, WITH K12 GASKETTED DIFFUSER, INTEGRAL DRIVER & WHITE TRIM. 4000K LAMP. EAGLE LIGHTING CAT No EL-CR44L-1102 OR APPROVED EQUIVALENT.
	1x36W RECESSED LED PANEL LIGHT WITH OPAQUE ACRYLIC DIFFUSER SUITABLE FOR T-BAR CEILING INSTALLATION, 4000K LAMP AND INTEGRAL DRIVER. SULAND CAT No SL-PL30120-36W-S4 OR APPROVED EQUIVALENT.
	1x40W DECORATIVE CAFE STYLE PENDANT WITH CONICAL REFLECTOR, WHITE SUSPENSION CORD & WHITE POWDERCOAT FINISH. TEMPLE & WEBSTER CAT No : SKU : TELX1527 OR APPROVED EQUIVALENT
	20 W/M CONTINUOUS LED ALUMINIUM EXTRUSION LIGHT FITTING WITH RECTANGULAR CROSS SECTION, INTEGRAL LED DRIVERS, UPWARD & DOWNWARD LIGHT OUTPUT & OPAL DIFFUSER, WHITE POWDERCOAT FINISH, SUSPENDED AT 2400mm AFFL (UNLESS NOTED OTHERWISE) USING STAINLESS STEEL SUSPENSION WIRE, 4000K LAMPS. KLK SYSTEMS KALLI 060 BEAM DI OR APPROVED EQUIVALENT. (NOM DIM 70mm x 100mm) MIN CR190
	SURFACE MOUNTED THREE CIRCUIT, 240V, 16A LIGHTING TRACK WHITE POWDERCOAT FINISH. TREND Cat No. TR3C OR APPROVED EQUIVALENT
	10W LED TRACKLIGHT WITH WHITE POWDERCOAT FINISH, TRACK ADAPTER. WIDE BEAM ANGLE, 4000K LAMPS. MIN CR190 TREND LIGHTING Cat No. XT010-4-MB-W OR APPROVED EQUIVALENT.
	300W RECTANGULAR LED HIGHBAY LUMINAIRE WITH IK10 IMPACT RATING, IP66 RATING, INTEGRAL DALI DIMMABLE DRIVERS, 30 x 105 DEGREE BEAM ANGLE, 5000K COLOUR TEMP INSTALLED 8200mm AFFL UNO. EKTOR CAT No PLANAR PRO OR APPROVED EQUIVALENT
	1x14W LED IP66 RATED BOLLARD WITH INTEGRAL DRIVER, 4000K LAMP COLOUR & OPAL DIFFUSER. NOM 900mm HIGH ANTHRACITE GREY POWDERCOAT FINISH. EAGLE LIGHTING CAT No S.214-IN.24 OR APPROVED EQUIVALENT
	65W/47W IP66 RATED LED POLE MOUNTED LUMINAIRE COMPLETE WITH INTEGRAL CONTROL GEAR, 4.5m HIGH GALVANISED STEEL POLE WITH POWDERCOAT FINISH TO MATCH LUMINAIRE, RAG BOLT ASSEMBLY, CONCRETE REINFORCED FOOTING, 4000K LAMP COLOUR. POLE & LIGHT FITTING TO HAVE BLACK POWDERCOAT FINISH Ø DEG TILT. REFER SPECIFICATIONS FOR FURTHER DETAILS OR APPROVE EQUIVALENT. ALL FITTINGS TO BE PROVIDED WITH BLACK POWDERCOAT PROPRIETARY GLARE SHIELD. NIKKON LIGHTING "ZEAL" OR APPROVED EQUIVALENT. LP1 - DENOTES 65W TYPE 'T4' LIGHT DISTRIBUTION CAT No H22-65-4B LP2 - DENOTES 47W TYPE 'T4' LIGHT DISTRIBUTION CAT No H22-47-4B

### POWER LEGEND

	DOUBLE 10A GPO INSTALLED 600mm AFFL. UNO
	SINGLE 10A GPO INSTALLED 600mm AFFL. UNO
	UB - DENOTES GPO MOUNTED UNDER BENCH
	AB - DENOTES MOUNTED ABOVE BENCH HEIGHT.
	C/M - DENOTES IN CEILING MOUNTED.
	No. - DENOTES MOUNTING HEIGHT AFFL.
	J - DENOTES MOUNTED ON JOINERY.
	S - DENOTES MOUNTED ON SKIRTING DUCT
	FR - DENOTES GPO DEDICATED FOR FRIDGE
	F/R - DENOTES FLOOR RECESSED OUTLET IN FLOOR BOX
	DW - DENOTES GPO DEDICATED FOR DISHWASHER
	WP - DENOTES IP 56 RATED GPO
	C/S - DENOTES OUTLET INSTALLED IN CEILING SPACE
	HD - DENOTES OUTLET DEDICATED FOR HAND DRYER
	15A - DENOTES 15A RATED OUTLET
	CL - DENOTES GPO FOR CLEANING PURPOSES
	3 PHASE, 5 PIN, IP 56 RATED GPO 20A DENOTES 20 AMP RATING.
	FIXED ELECTRICAL CONNECTION WITH ISOLATOR 1N - DENOTES SINGLE PHASE + NEUTRAL 3N - DENOTES THREE PHASE + NEUTRAL. 20A - DENOTES CURRENT RATING.
	DENOTE FLOOR RECESSED SERVICES BOX COMPLETE WITH HINGED RECESSED LID & FITTED WITH 1 OFF DOUBLE GPO & 1 OFF DOUBLE DATA OUTLET. FLOOR FINISH TO BE APPLIED TO RECESSED LID. CABLE WAY SHALLOW SERIES FLOOR BOX CAT No: FBSSR14LA
	NUMBER OF PHASES. / - DENOTES SINGLE PHASE. // - DENOTES THREE PHASE.
	ISOLATOR (No. DENOTES CURRENT RATING)
	HRC FUSE. No. DENOTES CURRENT RATING.
	CIRCUIT BREAKER No. - DENOTES CURRENT RATING.
	EARTH LEAKAGE CIRCUIT BREAKER (30mA SENSITIVITY U.N.O.)
	CURRENT TRANSFORMER.
	CONTACTOR
	CONTACTOR COIL.
	REMOVABLE CT BUSBAR LINK.
	MAIN SWITCHBOARD
	METERING PANEL
	SUPPLY AUTHORITY METERING.
	PRIVATE DIGITAL METERING (COMPLETE WITH MODBUS COMPATIBLE COMMUNICATIONS PORT)
	SURGE PROTECTION DEVICE. TYPE 'A' UNIT - ERICO CAT No. TDX100M-277/480 TYPE 'B' UNIT - ERICO CAT No. TDS330-TT-277
	DISTRIBUTION BOARD.
	MECHANICAL MCC (BY MECHANICAL TRADE).
	CIRCUIT DESIGNATION 24HR - DENOTES CIRCUIT WITH LIGHT SWITCH AT LOCAL DB ONLY. P - DENOTES POWER CIRCUIT L - DENOTES LIGHTING CIRCUIT. DISTRIBUTION BOARD NAME
	DENOTES DIMMED CIRCUIT CONTROLLED BY INTELLIGENT LIGHTING CONTROL SYSTEM
	DENOTES SWITCHED CIRCUIT CONTROLLED BY DALI INTELLIGENT LIGHTING CONTROL SYSTEM
	DENOTES CIRCUIT CONTROLLED BY COMBINED VARIABLE TIME SWITCH/PHOTO CELL COMPLETE WITH MANUAL OVERRIDE CONTROL AT CONTROL DESK.
	SEC - DENOTES CIRCUIT WITH MASTER CONTROL FROM SECURITY SYSTEM RELAY.
	PHOTOELECTRIC CELL (ADJUSTABLE SENSITIVITY)
	DIGITAL MULTICHANNEL PROGRAMMABLE TIME SWITCH.
	COMMUNICATION CABLE TRAY. NOTE 1. No. DENOTES TRAY WIDTH.
	POWER CABLE TRAY. NOTE 1. No. DENOTES TRAY WIDTH.
	COMMUNICATIONS PIT WITH HEAVY DUTY LID (NOM. 600mm (W) x 600mm (L) x 600mm (D).
	ELECTRICAL PIT WITH HEAVY DUTY LID TYPE 'A' DENOTES NOM. 600mm (W) x 600mm (L) x 800mm (D) PIT. TYPE 'B' DENOTES NOM 900m (W) x 900m (L) x 800m (D) PIT TYPE 'C' DENOTES NOM 1200m (W) x 1200m (L) x 800m (D) PIT
	PHOTOVOLTAIC SYSTEM DC/AC INVERTOR (NOM 50KVA RATING). REFER SPECIFICATION FOR DETAILS.

### COMMUNICATIONS LEGEND:

	TELECOMMUNICATIONS RACK.
	SINGLE DUAL TRIPLE } RJ 45 CAT 6A DATA OUTLETS INSTALLED ( 300mm AFFL UNO ). B - DENOTES MOUNTED ABOVE BENCH HEIGHT. No. - DENOTES MOUNTING HEIGHT AFFL. J - DENOTES MOUNTED ON JOINERY.
	NBN Co. NETWORK TERMINATION DEVICE
	MICROPHONE SOCKET (WIRED TO BOWS). COMPLETE WITH DESKTOP MICROPHONE & ZONE SELECTION CONSOLE B - DENOTES MOUNTED ABOVE BENCH HEIGHT. No. - DENOTES MOUNTING HEIGHT AFFL. J - DENOTES MOUNTED ON JOINERY.
	WIRELESS ACCESS DATA POINT (CAT 6A)
	MATV OUTLET (F TYPE CONNECTOR)

### SECURITY & CCTV LEGEND

	SECURITY SYSTEM MAIN PANEL
	DOOR REED SWITCH.
	SECURITY SYSTEM ALPHANUMERIC KEYPAD
	SECURITY SYSTEM MOTION SENSOR WITH ADJUSTABLE SENSITIVITY & RANGE. WG - DENOTES EQUIPMENT PROVIDED WITH WITH PROTECTIVE WIRE GUARD WITH WHITE POWDERCOAT FINISH SECURITY SYSTEM AUDIBLE/VISIBLE ALARM BEACON (IP56 RATED)
	CCTV SYSTEM HEADEND DVR COMPLETE WITH LCD MONITOR
	FIXED IP COLOUR CCTV CAMERA COMPLETE WITH VANDAL RESISTANT PROTECTIVE ENCLOSURE. EX - DENOTES EXISTING CAMERAS TO BE RETAINED
	COLOUR CCTV MONITOR COMPLETE WITH WALL MOUNTED BRACKET
	RECESSED PIEZO TYPE ALARM SYSTEM SOUNDER
	SECURITY SYSTEM MOTION SENSOR WITH 360° FIELD OF VIEW & ADJUSTABLE SENSITIVITY RANGE.
	ELECTRIC STRIKE
	DURESS ALARM PUSHBUTTON WIRED TO GENERAL SECURITY SYSTEM C/W KEY RESET (INSTALLED UNDER COUNTER).
	MAGNETIC DOOR LOCK
	PROXIMITY CARD READER

### FIRE DETECTION & BUILDING OCCUPANT WARNING SYSTEM (BOWS)

	ANALOGUE ADDRESSABLE COMBINED FIRE INDICATOR PANEL & BOW'S PANEL. ADDRESSABLE SMOKE DETECTOR . WG - DENOTES EQUIPMENT PROVIDED WITH WITH PROTECTIVE WIRE GUARD WITH WHITE POWDERCOAT FINISH
	ADDRESSABLE CONCEALED SMOKE DETECTOR COMPLETE WITH LED CEILING PLATE. PROVIDE SPECIAL MOUNTING BRACKET TO CONCEALED DETECTORS MOUNTED IN AREAS WITH FIXED PLASTERBOARD CEILINGS.
	ADDRESSABLE THERMAL DETECTOR. WG - DENOTES EQUIPMENT PROVIDED WITH WITH PROTECTIVE WIRE GUARD WITH WHITE POWDERCOAT FINISH
	RECESSED BOWS/PA SYSTEM SPEAKER. C/W WHITE PLASTIC GRILL. WG - DENOTES EQUIPMENT PROVIDED WITH WITH PROTECTIVE WIRE GUARD WITH WHITE POWDERCOAT FINISH
	HORN TYPE BOWS/PA SPEAKER (IP65 RATED) WG - DENOTES EQUIPMENT PROVIDED WITH WITH PROTECTIVE WIRE GUARD WITH WHITE POWDERCOAT FINISH
	MANUAL CALL POINT WG - DENOTES EQUIPMENT PROVIDED WITH WITH PROTECTIVE WIRE GUARD WITH WHITE POWDERCOAT FINISH
	BOWS VISUAL ALARM DEVICE (VAD). IP56 RATED. WG - DENOTES EQUIPMENT PROVIDED WITH WITH PROTECTIVE WIRE GUARD WITH WHITE POWDERCOAT FINISH
	COMBINED INFRARED/UV ADDRESSABLE BEAM TYPE SMOKE DETECTOR. WALL MOUNTED LESS THAN 600mm FROM THE ROOF LINE. PROVIDE SUITABLE MOUNTED REFLECTOR FOR EACH BEAM DETECTOR. WG - DENOTES EQUIPMENT PROVIDED WITH WITH PROTECTIVE WIRE GUARD WITH WHITE POWDERCOAT FINISH

### NOTE:

- CABLE TRAYS SHALL BE HEAVY GALVANISED STEEL AND PROVIDED WITH WHITE POWDERCOAT FINISH IN ALL VISIBLE AREAS OF THE BUILDING.