

GENERAL NOTES

- PROVIDE POWER AND LOCAL DISCONNECTS FOR 3 HOT WATER HEATERS.
- THE NOTED ELECTRIC WALL HEATERS TO BE Q-MARK #CWH-3407-LFK-SFC WITH A #14AWG SECURITY FRONT COVER; RATING - 3.0KW @ 240 VOLTS, FLUSH MOUNTED, INTEGRAL CONCEALED THERMOSTAT.
- ALL EXTERIOR GROUND CONNECTIONS TO BE BURIED.
- THE ELECTRIC HAND DRYERS TO BE OF THE VANDAL RESISTANT TYPE, SURFACE MOUNTED, EQUAL TO XLERATOR #XL-C COMPLETE WITH A RECESSED MOUNTING KIT. THE UNITS TO BE RATED 1250 WATTS, 120V. FASTEN TO CONCRETE BLOCKS WITH 4-6.4MM DIAM. TOGGLE WIRE TO GFI BREAKERS.
- THE CEILING MOUNTED OCCUPANCY SENSORS TO BE SENSOR SWITCH #CMR-9-LT-WG (C/W WIRE GUARD) RATED 800 WATTS @ 120 VOLTS; THE DEVICE TO BE RATED FOR OPERATION DOWN TO -40 DEG. C. AND SUITABLE FOR PARALLEL OPERATION. ONCE ACTIVATED, LIGHTS AND FAN TO REMAIN ON FOR 20 MINUTES. REFER TO THE CONTROL SCHEMATIC ON THIS DRAWING.
- ALLOW FOR THREE SPARE CIRCUITS, EACH 3#12-0.5", 30 METERS LONG. THE USAGE TO BE DESIGNATED DURING THE CONSTRUCTION PHASE. FOR PURPOSES OF CONTRACT PRICE ADJUSTMENT, IF ANY OF THESE ARE NOT USED, A CREDIT OF \$475.00 PER CIRCUIT WOULD APPLY.
- WIRE THE TYPE 4 LIGHT FIXTURES TO THE PHOTO CONTROL ON THE TYPE 3.
- PROVIDE A DISCONNECT SWITCHES WITH A LOCK OFF PROVISION IN THE COVER FOR ALL EXTERIOR LIGHTING CIRCUITS. LOCATE ADJACENT TO PANEL 'A'.
- MECHANICAL EQUIPMENT WIRING:
 - FAN #1: 0.25 HP 115 VOLT EXHAUST FAN. PROVIDE A MANUAL MOTOR STARTER FOR A LOCAL DISCONNECT. CONTROL AS FOLLOWS: OCCUPANCY SENSORS IN EITHER WASH RM. ACTIVATE A 30 AMP CEMA 1 CONTACTOR WHICH WOULD TURN ON THE FAN FOR 20 MINUTES.
 - FAN #2: 0.25 HP 115 VOLT EXHAUST FAN. PROVIDE A MANUAL MOTOR STARTER FOR A LOCAL DISCONNECT. CONTROL AS FOLLOWS: OCCUPANCY SENSORS IN EITHER WASH RM. ACTIVATE A 30 AMP CEMA 1 CONTACTOR WHICH WOULD TURN ON THE FAN FOR 20 MINUTES.
 - RP: 75 WATT 115 VOLT DOMESTIC HOT WATER RECIRC PUMP. PROVIDE 3#14 WIRING, MANUAL CEMA 3 MOTOR STARTER FOR A LOCAL DISCONNECT.
 - HOT WATER HEATERS (3); PROVIDE A 15AIP LOCAL DISCONNECT & WIRE EACH WITH 14/3; WHERE THE SUPPLIED UNITS ARE PROVIDED WITH A PLUG IN CORD, PROVIDE A 15 AMP RECEPTACLE 300MM ABOVE EACH UNIT.
 - WATER SOFTENERS (3); PROVIDE A 15AIP LOCAL DISCONNECT & WIRE EACH WITH 14/3; WHERE THE SUPPLIED UNITS ARE PROVIDED WITH A PLUG IN CORD, PROVIDE A 15 AMP RECEPTACLE 300MM ABOVE EACH UNIT.
- ALL ELECTRICAL RECEPTACLES & ELECTRIC HAND DRYERS IN THE WASH ROOM & CHANGE ROOM AREAS TO BE ON GFI BREAKERS (5 MA TRIP); ENSURE THAT EACH CIRCUIT IS PROVIDED WITH A DEDICATED NEUTRAL.
- NO DEVIATION FROM CIRCUIT NUMBERING WILL BE PERMITTED.
- OVERLOAD DEVICES FOR MOTORS TO BE SET AT 1.25 X RLA.

- NOTES:**
- THIS PLAN WAS PREPARED FOR THE GOVERNMENT'S INTERNAL PURPOSES ONLY. THE GOVERNMENT DOES NOT WARRANT THAT THIS PLAN IS APPROPRIATE FOR ANY OTHER PURPOSE OR LOCATION. NEITHER THE MINISTER NOR THE GOVERNMENT ACCEPTS ANY RESPONSIBILITY FOR ANY LOSSES OR DAMAGES ARISING FROM ANYONE USING THIS PLAN. THE USER MUST ENSURE THAT ANYTHING BUILT FROM THIS PLAN IS ADEQUATE AND SAFE FOR THE USER'S PARTICULAR SITE CONDITIONS. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, ALL FOUNDATION, STRUCTURAL SAFETY, AND ANY OTHER APPLICABLE REQUIREMENTS.
 - THE USER SHALL ALSO ENSURE THAT THIS PLAN WILL SUIT THE PARTICULAR SITE AND COMPLY WITH ANY OTHER RELEVANT FEDERAL, PROVINCIAL, OR MUNICIPAL REGULATIONS AND CODES WHICH MAY APPLY AT THE USER'S SITE.
 - THE LOCATION OF THE UNDERGROUND SERVICES AS SHOWN IS APPROPRIATE ONLY. OTHER UNKNOWN SERVICES MAY EXIST IN THE VICINITY. PLEASE CHECK WITH THE APPROPRIATE UTILITY COMPANY AND THE PARK/SITE MAINTENANCE SUPERVISOR OR REPRESENTATIVE.
 - IT IS THE RESPONSIBILITY OF ANYONE USING THIS PLAN FOR DESIGN PURPOSES TO VERIFY ALL INFORMATION SHOWN ON THIS PLAN. IT IS THE USER'S RESPONSIBILITY TO IDENTIFY ANY UTILITY INFRASTRUCTURE.

PANEL "A", 120/240/1

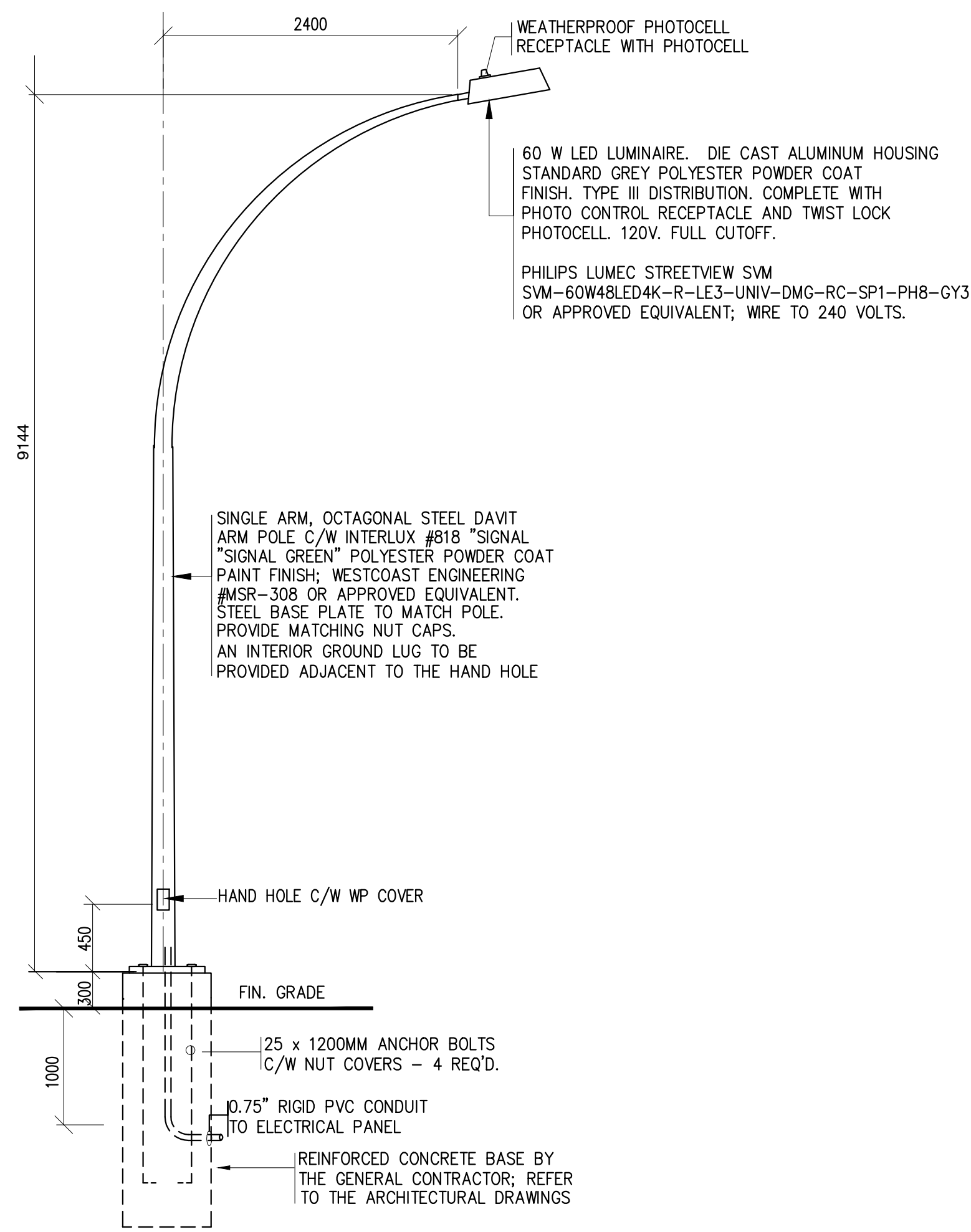
NO.	AMP.	LOAD	NO.	AMP.	LOAD
1	15	MEN'S W.R. 103, SHOWER 104	2	15	LADIES' W.R. 100, SHOWER
3	15,GFI	MEN'S W.R. 103	4	15	EXTERIOR
5	15,GFI	MEN'S W.R. 103	6	15,GFI	LADIES' W.R. 100
7	15,GFI	MEN'S W.R. 103	8	15,GFI	LADIES' W.R. 100
9	15,GFI	MEN'S W.R. 103	10	15,GFI	LADIES' W.R. 100
11	20,GFI	EHD - MEN'S W.R. 103	12	15,GFI	LADIES' W.R. 100
13	15,GFI	MEN'S SHOWER 104	14	20,GFI	EHD - LADIES' W.R. 100
15	2	VOLTAGE SURGE SUPPRESSOR	16	15,GFI	LADIES' SHOWER 101
17	30	WALL HEATER	18	20,GFI	EXTERIOR
19	2	WALL HEATER	20	20,GFI	EXTERIOR
21	20	MEN'S W.R. 103	22	2	WALL HEATER
23	15	WATER SOFTENERS (3)	24	20	LADIES' WASH RM. 100
25	15	EXHAUST FAN EF1	26	15	MECH. 102
27	15	EXHAUST FAN EF2	28	15	MECH. 102
29	15	PUMP RP & SHOWER CONTROLS	30	15	WATER HEATER
31	2	LIGHT STANDARDS	32	15	WATER HEATER
33	15	EXIT LIGHTS	34	15	WATER HEATER
35	15	SPARE	36	2	MECH 105 (CONSTRUCTION HEATER)
37	15	SPARE	38	30	MECH. 102
39	15	SPARE	40	15	MECH. 102
41	15,GFI	SPARE	42	2	1.4 HP WATER PRESSURE BOOSTER
43			44	15	
45			46		
47			48		
49			50		
51			52		
53			54		

ALL GFI BREAKERS TO HAVE A 5MA TRIP.

125A 2PSN MAIN BREAKER, 22KAIC

ELECTRICAL SPECIFICATIONS

- CODES AND STANDARDS**
 - PERFORM COMPLETE INSTALLATION IN ACCORDANCE WITH CSA C22.-2012.
 - COMPLY WITH CSA CERTIFICATION STANDARDS AND ELECTRICAL BULLETINS IN FORCE AT THE TIME OF TENDER.
- PERMITS AND FEES**
 - OBTAIN THE NECESSARY PERMITS FROM THE PROVINCE OF SASK. ELECTRICAL INSPECTION DEPARTMENT.
- MATERIALS AND EQUIPMENT**
 - EQUIPMENT AND MATERIAL TO BE CSA CERTIFIED, AND MANUFACTURED TO THE STANDARD QUOTED.
 - ALL EQUIPMENT USED ON THIS PROJECT SHALL BE NEW.
- EQUIPMENT IDENTIFICATION**
 - IDENTIFY ALL ELECTRICAL EQUIPMENT WITH NAMEPLATES AND LABELS AS
 - 3MM THICK LAMACOID PLASTIC ENGRAVING SHEET, WHITE FACE, BLACK FACE, BLACK CORE SELF ADHESIVE UNLESS OTHERWISE SPECIFIED.
 - ALL JUNCTION AND PULL BOXES TO BE NEATLY LABELED AS TO THE SYSTEM AND VOLTAGE CONTAINED THEREIN. A BLACK FELT MARKER PEN MAY BE USED FOR THIS PURPOSE.
 - SIZE OF LETTERS ON LAMACOID NAMEPLATES:
 - EQUIPMENT ID (PANEL "A", ETC.) - 19MM
 - SYSTEM ID (120/240V SINGLE PHASE, ETC.) - 12.5MM
 - CIRCUIT NOS., MOTOR NAMES FOR DEVICES - 6MM
 - COORDINATE EQUIPMENT NAMES WITH THE MECHANICAL CONTRACTOR TO ENSURE THAT IDENTICAL NAMES ARE USED.
- GENERAL WIRING**
 - ALL ELECTRICAL EQUIPMENT SUPPLIED FOR THIS PROJECT SHALL BE WIRED UNDER THIS CONTRACT.
 - ALL EQUIPMENT MUST BE WIRED TO THE CIRCUITS AS INDICATED.
 - BRANCH CIRCUIT WIRING TO BE INSTALLED IN CONDUIT OR ARMoured CABLE. #14AWG MAY BE USED FOR RUNS UP TO 15M ON 15 AMP BRANCH CIRCUITS. WITH MAXIMUM 3 CONDUCTORS PER RACEWAY OR CABLE. ALL OTHER WIRING WITH 4 OR MORE CONDUCTORS PER RACEWAY TO BE #12AWG FOR 15A CIRCUITS.
 - UNDERGROUND WIRING TO BE TYPE RW90-40 INSTALLED IN RIGID PVC CONDUIT AND BURIED 1000MM.
- CLEANING**
 - AT THE TIME OF FINAL CLEANING, CLEAN LIGHTING REFLECTORS, LENSES AND OTHER LIGHTING SURFACES THAT HAVE BEEN EXPOSED TO CONSTRUCTION DUST AND DIRT.
- RECORD DRAWINGS**
 - RECORD ALL CHANGES MADE TO THE CONTRACT DOCUMENTS DURING CONSTRUCTION AND SUBMIT THESE TO THE ENGINEER UPON COMPLETION.
- SHOP DRAWINGS**
 - SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR ALL ELECTRICAL EQUIPMENT USED ON THIS PROJECT PRIOR CONFIRMATION OF ORDERS FOR SAME.
 - SHOP DRAWINGS TO BE E-MAILED SUBMITTED IN UNLOCKED .PDF FORMAT.
- WIRING DEVICES**
 - ALL WIRING DEVICES USED ON THIS PROJECT TO BE COMMERCIAL GRADE, DECORA STYLE.
 - WHITE PLASTIC CONSTRUCTION SHALL BE USED GENERALLY FOR ALL WIRING DEVICES.
 - USE STAINLESS STEEL COVER PLATES FOR ALL FLUSH WALL MOUNTED INTERIOR WIRING DEVICES. USE TAMPER PROOF SCREWS IN PUBLIC AREAS. SUPPLY TWO SCREW DRIVERS FOR SUCH SCREWS.
 - NO WIRING DEVICE SHALL BE USED AS A JUNCTION POINT FOR NEUTRAL CONDUCTORS IN MULTI-WIRE BRANCH CIRCUITS.
 - CONNECTIONS BETWEEN A WIRING SYSTEM AND A WIRING DEVICE TO BE OF THE SCREW TYPE.
 - ALL SWITCHES INSTALLED IN ONE AREA TO BE UNDER A COMMON COVER PLATE.
- VAPOUR BARRIER PENETRATIONS**
 - ALL OUTLETS THAT PENETRATE A VAPOUR BARRIER SHALL BE INSTALLED IN A POLYETHYLENE BOX MANUFACTURED FOR THE APPLICATION.
 - ALL CABLES WHICH PENETRATE THE ABOVE VAPOUR BARRIER SHALL BE SEALED WITH AN APPROVED CAULKING COMPOUND.
- PENETRATIONS OF FIRE SEPARATIONS**
 - THIS CONTRACTOR SHALL FIRE STOP ALL CONDUIT AND CABLE PENETRATIONS IN RATED WALL AND CEILING ASSEMBLIES IN THE MECHANICAL ROOM.
- LIGHTING SCHEDULE**
 - TYPE '1': 48" 5300 LUMEN LED WALL/CEILING FIXTURE. VISIONEERING #LEL-48-40K-UNV.
 - TYPE 2: 48" NOMINAL SURFACE CEILING MOUNTED, VANDAL PROOF 5200 LUMEN, 50 WATT LED FIXTURE; LUMINAIRE LIGHTING #VPF84-50W-4000K-OP-WHT OR APPROVED EQUAL. FASTEN SECURELY TO THE STRUCTURE WITH 6-25MM LONG DECK SCREWS EQUALLY SPACED.
 - TYPE 3: EXTERIOR VANDAL PROOF LED WALL MOUNTED FIXTURE; MINIMUM 5000 LUMENS, ECOPOWER #WPHO-80W-CW-K-V3-B00, HUBBELL #WLE-30LU-5K-BZ, DELCO #D414-LED-40-50-UNV-BZ-PC, OR LITHONIA #TWPLED-30C-700-50K-13M-208-PE-DBDX; THE INTEGRAL PHOTO CONTROL TO BE AN INTERMATIC #EK4036S. PROVIDE SECURE MOUNTING TO STRUCTURE WITH 4-2" DECK SCREWS.
 - TYPE 4: EXTERIOR FLUSH MOUNT IMPACT RESISTANT LED CEILING MOUNTED FIXTURE. LUMINAIRE LIGHTING #5WP1212-25WHP-4000K-120-CP-BRZ, 2724 LUMENS, 27 WATTS, 120 VOLT. FASTEN TO THE STRUCTURE WITH 4-25MM LONG DECK SCREWS EQUALLY SPACED.
 - TYPE 5: 24" NOMINAL SURFACE CEILING MOUNTED, VANDAL PROOF 2600 LUMEN, 25 WATT LED FIXTURE; LUMINAIRE LIGHTING #VPF82-25W-4000K-OP-WHT OR APPROVED EQUAL. FASTEN SECURELY TO THE STRUCTURE WITH 4-25MM LONG DECK SCREWS EQUALLY SPACED. TYPE 5A: SAME SERIES AS TYPE 5 EXCEPT VAPOUR TIGHT.
 - TYPE '6': NEW 60 WATT LED LIGHT STANDARDS AS PER DET. 1/E-3.
 - TYPE E2: IMPACT RESISTANT CEILING MOUNTED LED EMERGENCY LIGHT FIXTURE; AMLITE #RMQV-2-24-LMR16-WHT-VDR WITH 2-7.0 WATT 24 VOLT MR16 LED LAMPS.
 - TYPE 'X2': WALL MOUNTED EXIT LIGHT, RUNNING MAN SERIES TO NBC-2010, 120 VOLT WITH A 24 VOLT DC CONNECTION FOR EXTERNAL EMERGENCY POWER; METAL CONSTRUCTION WITH A WIRE GUARD.
 - EMERGENCY LIGHTING UNIT 'EA' TO BE RATED 24 VOLTS, 720 WATTS/0.5 HR. AND BE COMPLETE WITH A MOUNTING CABINET, AUTOMATIC EXERCISER CIRCUIT, CONTROL POWER FAILURE BUZZER, 2-7 WATT MOUNTED 24V LED LAMPS. THE DATE OF MANUFACTURE OF THE BATTERIES SHALL NOT BE LONGER THAN 6 MONTHS PRIOR TO THE IN SERVICE DATE. NO DELIVERIES TO SITE WILL BE ACCEPTED UNTIL 60 DAYS BEFORE SUBSTANTIAL COMPLETION. CONTROL FROM CIRCUITS A-40(1), A-2, & A-1 VIA RELAYS. #12AWG WIRING TO BE USED.
- WARRANTY**
 - ALL ELECTRICAL SYSTEMS ON THIS PROJECT SHALL CARRY A FULL 12 MONTH WARRANTY FROM THE DATE OF SUBSTANTIAL COMPLETION UNLESS OTHERWISE NOTED.
 - LED LIGHT FIXTURES TO HAVE A MANUFACTURER'S MATERIALS WARRANTY OF 5 YR.; THIS INFORMATION TO CLEARLY STATED IN THE OWNER'S MANUALS.
- MOUNTING HEIGHTS**
 - LOCATE LIGHT SWITCHES ON THE LATCH SIDE OF THE DOORS EXCEPT AS OTHERWISE NOTED. MOUNT AT +1100 MM.
 - WALL RECEPTACLES:
 - GENERAL: 450 MM.
 - ABOVE COUNTERS - 300 MM
 - PANEL BOARD: 2000 MM TO TOP.
- SITE TRENCHING**
 - CONFIRM THE LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO TRENCHING.



LIGHT STANDARD TYPE 6 DET. 1/E-3

NTS

	MEADOW LAKE PROVINCIAL PARK SANDY LAKE CAMPGROUND	LOCATION
	SERVICE CENTRE REPLACEMENT PLAN NO. SHEET 24 OF 24 ELECTRICAL SPECIFICATIONS & DETAILS 1008-30-F22-15C	

PROJECT
SERVICE CENTRE REPLACEMENT
MEADOW LAKE PROVINCIAL PARK SANDY BEACH CAMPGROUND
MINISTRY OF PARKS, CULTURE AND SPORT
PARKS SERVICE BRANCH
2nd FLOOR 3211 ALBERT STREET
REGINA, SASKATCHEWAN
S4S 5W6
DRAWING
ELECTRICAL SPECIFICATIONS & DETAILS

PLTS:	1:50	A1 SHEET
PLOT:	APR. 13, 2017	
FILE:	3556C	
ENG. FILE:	1610	
DATE:	APR. 13, 2017	
DESIGN:	WDH	
DRAWN:	CAL	

DRAWING NO. **E.3**