ANNEX D

AS-BUILT PLANS (ELECTRIC)

NEW CLARK CITY SPORTS FACILITIES

1 GENERAL NOTES
EE-01 SCALE NTS

ALL ELECTRICAL WORKS HEREIN WERE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINES ELECTRICAL CODE, THE LAWS AND ORDINANCE OF THE LOCAL CODE ENFORCING AUTHORITIES AND REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE COMPANY.

1. INCOMING PRIMARY SERVICE POWER WERE 13.8 kV, 3ϕ, 3W+G, 60Hz SYSTEM. BUILDING UTILIZATION VOLTAGE WERE 400V/230V, 3ϕ, 4W, 60Hz, GROUNDED SYSTEM.
2. ALL WIRING METHOD FOR LIGHTING, POWER, TELEPHONE, CCTV, FIRE DETECTION AND ALARM SYSTEM WERE IN PVC PIPE FOR ALL EMBEDDED IN CONCRETE SLAB AND METALLIC CONDUIT FOR CONCEALED IN DROP CEILING AND FALSE WALLS, EXPOSED CONDUIT LAYOUT, FEEDER DISTRIBUTION AND MAJOR POWER CONDUIT RISER.
3. SMALLEST BRANCH CIRCUIT WIRE WERE 3.5mm² THHN/THWN FOR POWER AND LIGHTING SYSTEM IN RACEWAY 15mmϕ TRADE SIZE CONDUIT. WIRES WERE INSULATED FOR 600 VOLTS.
4. ALL BRANCH CIRCUIT HOMERUN WERE INSTALLED AS INDICATED IN THE PLAN. EXPOSED CONDUIT RUN WERE INSTALLED PARALLEL TO OR PERPENDICULAR WITH THE BUILDING LINE AND SUPPORTED BY CONDUIT CLAMPS EVERY 1.5 METERS. DIAGONAL CONDUIT RUN SHALL NOT BE ACCEPTED.
5. WHENEVER NECESSARY PULLBOX OF PROPER SIZE AND DIMENSION WERE PROVIDED ALTHOUGH NOT INDICATED IN THE PLAN. ALL BOXES WERE PROVIDED WITH METAL PLATE COVER.
6. SIZING OF ALL PULLBOXES WERE COMPUTED BASED ON THE CODE REQUIREMENTS. SUBMIT SHOP DRAWING FOR APPROVAL PRIOR TO FABRICATION. LOCATION OF PULLBOXES WERE AS APPROVED BY THE ARCHITECT/ENGINEER
7. USE CAST-DEVICE BOXES FOR ALL OUTDOOR INSTALLATIONS. THIS INCLUDES BODIES AND FITTING.
8. ALL LIGHTING FIXTURES WERE LED TYPE EQUIPPED WITH ELECTRONIC DRIVER, SPRING LOADED LAMPHOLDERS.
9. ALL LIGHT CONTROLLED SWITCHES WERE RATED 15 AMPS. 220V AC ONLY. SWITCHES WERE INSTALLED FOR OPERATION WITH HORIZONTAL MOTION.
10. ALL PANELBOARD WERE PROVIDED WITH MULTIPLE GROUNDING TERMINALS FOR SOLID AND NEUTRAL, GROUNDING WIRE SHALL BE CONNECTED TO A GROUND SYSTEM.
11. ALL ENCLOSED CIRCUIT BREAKER WERE PROVIDED WITH GROUND LUGS
12. THE ELECTRICAL CONTRACTOR WERE SUBMIT SHOP DRAWINGS OF ALL PANELBOARDS PRIOR TO FABRICATION. SINGLE BRAND OF CIRCUIT BREAKER AND APPROVED PANELBOARD FABRICATOR SHALL BE UTILIZED FOR CIRCUIT BREAKER COORDINATION.
13. ALL BRANCH CIRCUIT HOMERUN FOR POWER AND LIGHTING WERE NOT BE COMBINED IN THE SAME RACEWAY.
14. FOR EACH SPARE CIRCUIT BREAKER IN PANELBOARD PROVIDE 15mmϕ RACEWAY OR AS SPECIFIED TERMINATING IN 100mm DEEP TYPE SQUARE BOX WITH COVER BELOW CEILING SLAB AND WERE PROVIDED WITH PULL WIRE.
15. ALL METALLIC CONDUIT, CABINET, BOXES AND EQUIPMENT WERE PROPERLY GROUNDED AND BONDED.
16. ALL MATERIALS TO BE USED WERE NEW AND APPROVED FOR THE LOCATION AND PURPOSE.
17. MOLDED CASE CIRCUIT BREAKERS WERE USED FOR PUMPS AND MOTORS.
18. ALL BOXES WERE MADE OF CODE GAUGE STEEL WITH ZINC CHROMATE PROTECTION.
19. ALL RECEPTACLE OUTLET WERE PROPERLY GROUNDED TO THE BOX BY MEANS OF GROUNDING LUGS.
20. MOUNTING HEIGHT NOT SHOWN SCHEDULE WERE AS FOLLOWS:
    - a. LIGHT CONTROLLED SWITCHES ——— 1.37 METER ABOVE FLOOR FINISH AT CENTER UNLESS OTHERWISE INDICATED BY THE FIELD CONDITIONS.
    - b. DUPLEX CONVENIENCE OUTLET ——— 0.30 METER ABOVE FLOOR FINISH AT CENTER UNLESS OTHERWISE INDICATED BY THE FIELD CONDITIONS.
    - c. TELEPHONE OUTLET ——— 0.30 METER ABOVE FLOOR FINISH AT CENTER UNLESS OTHERWISE INDICATED BY THE FIELD CONDITIONS.
    - d. PANELBOARD / DISCONNECT ——— 1.82 METER ABOVE FLOOR FINISH TO THE TOP OF PANEL UNLESS OTHERWISE INDICATED BY THE FIELD CONDITIONS.
21. ALL WIRES AND CABLES WERE HAVE COLOR CODING AS FOLLOWS:
    - PHASE A ——— RED
    - PHASE B ——— YELLOW
    - PHASE C ——— BLUE
    - NEUTRAL ——— WHITE
    - GROUND ——— GREEN
22. ALL CONDUIT, BOXES AND SUPPORT WERE PAINTED AND COLOR CODED AS FOLLOWS:
    - LIGHTING & POWER SYSTEM ——— GRAY
    - TEL. & CCTV ——— GRAY
    - FIRE ALARM SYSTEM ——— GRAY
23. ALL CONDUIT SLEEVES, FLOOR PIPE CHASE AND WALL SLOT PENETRATION THROUGH ELECTRICAL ROOM, WALLS, CLOSET, SPACE WERE PROPERLY SEALED-OFF WITH FIRE RETARDANT MATERIAL TO MAINTAIN FIRE RESISTIVE RATING OF THE FLOOR OPENING.
24. THE ELECTRICAL CONTRACTOR WERE SECURE ALL WIRING PERMITS AND ALL FEES REQUIRED FOR THE WORK AND WEREFURNISH, THE OWNER THROUGH THE ENGINEERS, FINAL CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETED WORK.
25. THE ELECTRICAL CONTRACTOR WERE VERIFY AND STUDY THE ARCHITECTURAL SCALE DRAWINGS, LARGE SCALE AND FULL-SIZE DETAILS, APPROVED SHOP DRAWING FROM OTHER TRADES AND SHALL FREQUENTLY CONSULT AND COORDINATE WITH OTHER TRADES TO AVERT CONFLICT IN ACTUAL SITE INSTALLATION WORK.
26. THE ELECTRICAL CONTRACTOR WERE REFER TO ARCHITECTURAL OR INTERIOR DESIGN DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHT OF ALL VISIBLE WIRING DEVICES, LIGHTING FIXTURES AND THE LIKES.
27. THE ELECTRICAL CONTRACTOR WERE PROVIDE SHOP DRAWING IN ANY CHANGES IN MOUNTING HEIGHT OR LOCATION FOR THE APPROVAL OF ARCHITECT OR ENGINEER.
28. ANY DISCREPANCIES BETWEEN PLANS AND SPECIFICATIONS, CONFLICT WITH OTHER TRADE OR SITE CONDITION WERE REFER TO ENGINEER AND/OR ARCHITECT.
29. ALL WIRES AND CABLE WITHIN PULLBOXES, GUTTER, WIREWAY AND SWITCHBOARD WERE BUNDLED TOGETHER PER SET AND PROPERLY AND PERMANENTLY MARKED AND LABELLED SPECIFYING SIZE AND LOAD SERVE EVERY 3.0 METERS.
30. ALL RECEPTACLE OUTLET WERE PROPERLY AND PERMANENTLY LABELLED INDICATING PANELBOARD CONNECTION AND BRANCH CIRCUIT HOMERUN.
31. FOR EVERY LENGTH OF ALL CONDUIT EXPOSED CONDUIT, VERTICAL CONDUIT RISER, HORIZONTAL RUN AND BUSWAY RISER WERE PROPERLY MARKED AND LABELLED INDICATING SIZE AND LOAD SERVE. LABELLING WERE EVERY 3.0 METERS.
32. ALL ELECTRICAL WORKS HEREIN WERE DONE UNDER THE DIRECT AND IMMEDIATE SUPERVISION OF A DULY QUALIFIED LICENSED ELECTRICAL ENGINEER.
33. UPON COMPLETION OF ELECTRICAL WORKS, INSULATION, GROUNDING AND LOAD BALANCING TEST WERE CONDUCTED AND SUBMIT RESULT FOR FURTHER EVALUATION.

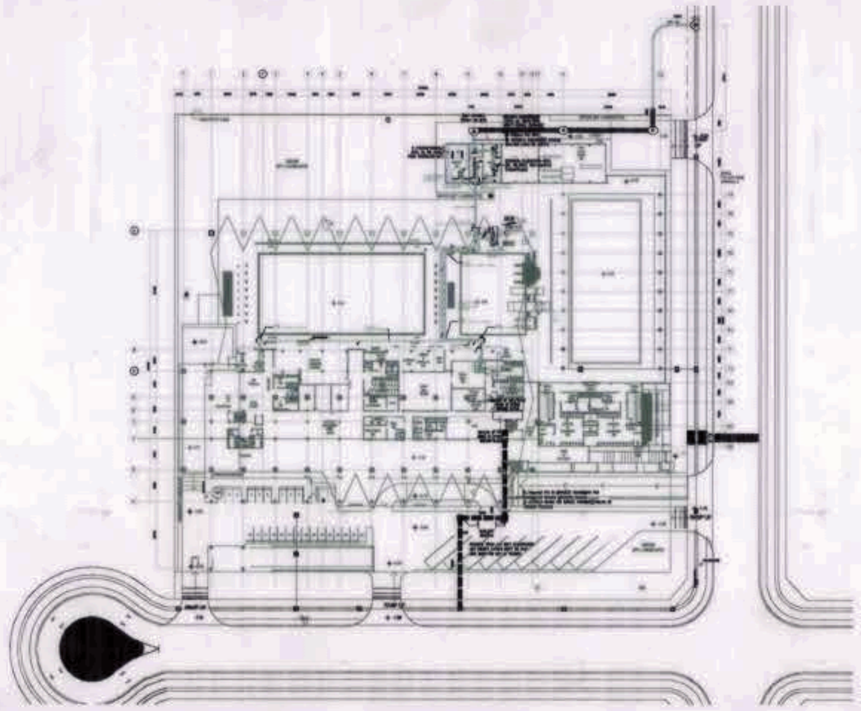
ALL MOUNTING HEIGHTS ARE SUBJECT TO THE APPROVAL OF THE ARCHITECT / OWNER.

2 LEGEND
EE-01 SCALE NTS

- S2 — SURFACE MOUNTED 29W DUS/ WEATHERPROOOF IP65 (S2)
- LO1 — SURFACE MOUNTED LINEAR LIGHT LED WITH OPAL WHITE DIFFUSER
- S1 — SURFACE MOUNTED 36W DUS/ WEATHERPROOOF IP65
- LB — 20W PENDANT LUMINAIRE WITH REFLECTOR
- DO1 — SQUARE MOUNTED LINEAR LIGHT LED WITH OPAL WHITE DIFFUSER
- HB01 — HIGH BAY LED 120W (HB01)
- ELR1 — CRAZY CUT WITH LED STRIP LED-F 2W 333M (ELR1)
- S3 — 23W SURCAFE MOUNTED LED DOWNLIGHT (S3)
- P1 — LED PANEL LIGHT 30W (P1)
- AREALED-240-45 *9.3 kgs.
- AREALED-840-45 *17.5 kgs.
- F7 — WALL MOUNTED EMERGENCY LIGHT, NON-MAINTAINED TYPE, COMPLETE WITH 2.4 VOLTS, 4AH NICKEL CADMIUM CELL, BATTERY BACK-UP, INVERTER BATTERY PROTECTION, 16 HOURS RE-CHARGED PERIOD, CONSTANT CURRENT CHARGER, 2 HOURS MINIMUM BATTERY OPERATION TIME, TEST BUTTON, CHARGE INDICATOR LAMP, AND OTHER STANDARD ACCESSORIES.
- F8 — EXIT SIGN, MAINTAINED TYPE, COMPLETE WITH 2.4 VOLTS, 4AH NICKEL CADMIUM CELL, BATTERY BACK-UP, INVERTER BATTERY PROTECTION, 16 HOURS RE-CHARGED PERIOD, CONSTANT CURRENT CHARGER ARROW DENOTES DIRECTION.
- "EM" — LIGHTING FIXTURES WITH SHADED PORTION WITH "EM" DENOTES EQUIPPED WITH BATTERY PACK FOR EMERGENCY LIGHT (MAINTAINED TYPE) WITH 2 HOURS MINIMUM OPERATING TIME.
- •Sa/S3W — SINGLE TUMBLER SWITCH / THREE WAY SWITCH
- •2Sab — TWO GANG TUMBLER SWITCH, NUMBER DENOTES NUMBER OF GANG IN A PLATE, SMALL LETTER DENOTES LIGHT CONTROLLED
- WALL MOUNTED DUPLEX CONVENIENCE OUTLET, 15A, UNIVERSAL, GROUNDING TYPE "WP" DENOTES WEATHER PROOF, "GFCI" DENOTES GROUND FAULT CIRCUIT INTERRUPTER, AND "HD" DENOTES HAND DRYER, "BC" DENOTES BATTERY CHARGER
- FLOOR MOUNTED CONVENIENCE OUTLET 15A, UNIVERSAL, GROUNDING TYPE
- CEILING MOUNTED / WALL MOUNTED / FLOOR MOUNTED JUNCTION BOX POINT OF CONNECTION BETWEEN ELECTRICAL AND MECHANICAL
- CEILING MOUNTED / WALL MOUNTED JUNCTION BOX
- ELECTRIC MOTOR, RATING AS INDICATED
- ELECTRIC MOTOR CONTROLLER
- ENCLOSED CIRCUIT BREAKER, RATING AS INDICATED
- PANELBOARD
- STUB-OUT CONDUIT
- CONDUIT BRANCH CIRCUIT HOMERUN TO PANELBOARD
- CONDUIT RUN EMBEDDED OR CONCEALED IN CONCRETE FLOOR SLAB OR CONCRETE WALLS
- G — GENERATOR SET UNIT, RATING AS INDICATED
- CIRCUIT BREAKER, RATING AS INDICATED
- RU/RD — CONDUIT RISER UP / CONDUIT RISER DOWN
- GW/GR — GROUND WELL WITH COVER AND 20mmϕ x 3000mm LONG GROUND ROD
- GR — 20mmϕ x 3000mm LONG GROUND ROD

3 DRAWING INDEX
EE-01 SCALE NTS

SHEET NO.	SHEET TITLE
EE-01	GENERAL NOTES, LEGEND, DRAWING INDEX, VICINITY MAP, AND PERSPECTIVE
EE-02	BASEMENT FLOOR LIGHTING SYSTEM LAYOUT
EE-03	BASEMENT FLOOR POWER SYSTEM LAYOUT
EE-03A	BASEMENT & POWER HOUSE GROUNDING SYSTEM LAYOUT
EE-04	LOWER GROUND FLOOR DUCTBANK SYSTEM LAYOUT
EE-04A	LOWER GROUND FLOOR (POWER HOUSE) BUSDUCT LAYOUT
EE-04B	LOWER GROUND FLOOR FEEDER SYSTEM LAYOUT
EE-05	LOWER GROUND FLOOR LIGHTING SYSTEM LAYOUT
EE-06	LOWER GROUND FLOOR POWER SYSTEM LAYOUT
EE-07	POWER HOUSE & TCV LIGHTING SYSTEM LAYOUT
EE-07A	TRAINING POOL LIGHTING SYSTEM LAYOUT
EE-08	POWER HOUSE & TRAINING CHANGING VILLAGE POWER SYSTEM LAYOUT
EE-09	UPPER GROUND FLOOR (PEDESTRIAN STAIR) LIGHTING SYSTEM LAYOUT
EE-10	UPPER GROUND POWER SYSTEM LAYOUT
EE-11	UPPER BLEACHER LIGHTING WALL AND LIGHTING/POWER SYSTEM LAYOUT
EE-12	PRESIDENTIAL SUITE LIGHTING & POWER SYSTEM LAYOUT
EE-12A	PRESIDENTIAL SUITE (@CAT WALK & HI-BAY) LIGHTING SYSTEM LAYOUT
EE-12B	PRESIDENTIAL SUITE-ROOFDECK POWER SYSTEM LAYOUT
EE-13	LOAD SCHEDULE PART 1 of 2
EE-14	LOAD SCHEDULE PART 2 of 2
EE-15	POWER RISER DIAGRAM
EE-16	LIGHTNING PROTECTION SYSTEM LAYOUT (@ROOF DECK)
EE-17	MISCELLANEOUS DETAILS PART 1 OF 3
EE-18	MISCELLANEOUS DETAILS PART 2 OF 3
EE-19	MISCELLANEOUS DETAILS PART 3 OF 3



6 SITE DEVELOPMENT PLAN
EE-01 SCALE NTS



5 PERSPECTIVE
EE-01 SCALE NTS



4 VICINITY MAP
EE-01 SCALE NTS

CLARK DEVELOPMENT CORPORATION
OFFICE OF THE BUILDING OFFICIAL

City / Municipality

LAND USE AND ZONING

LINE AND GRADE

ARCHITECTURAL

STRUCTURAL

SANITARY/PLUMBING

ELECTRICAL

MECHANICAL

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

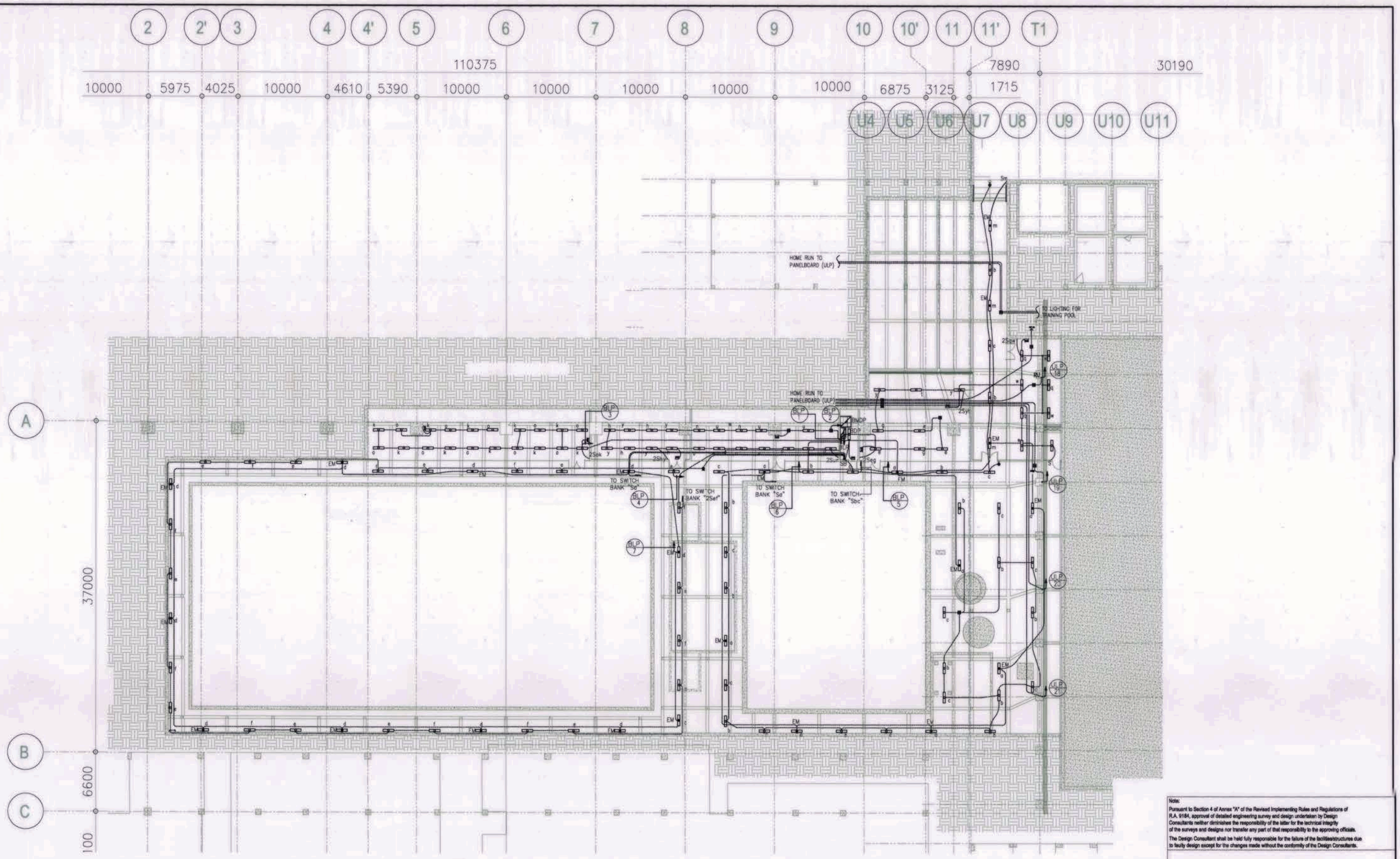
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE NTS

N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA — VIVENCIO B. DIZON, PRESIDENT AND MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation, 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City — JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	GENERAL NOTES, LEGEND, DRAWING INDEX, VICINITY MAP AND PERSPECTIVE	EE-01



1
EE-02

BASEMENT LIGHTING SYSTEM LAYOUT

SCALE: 1:200

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

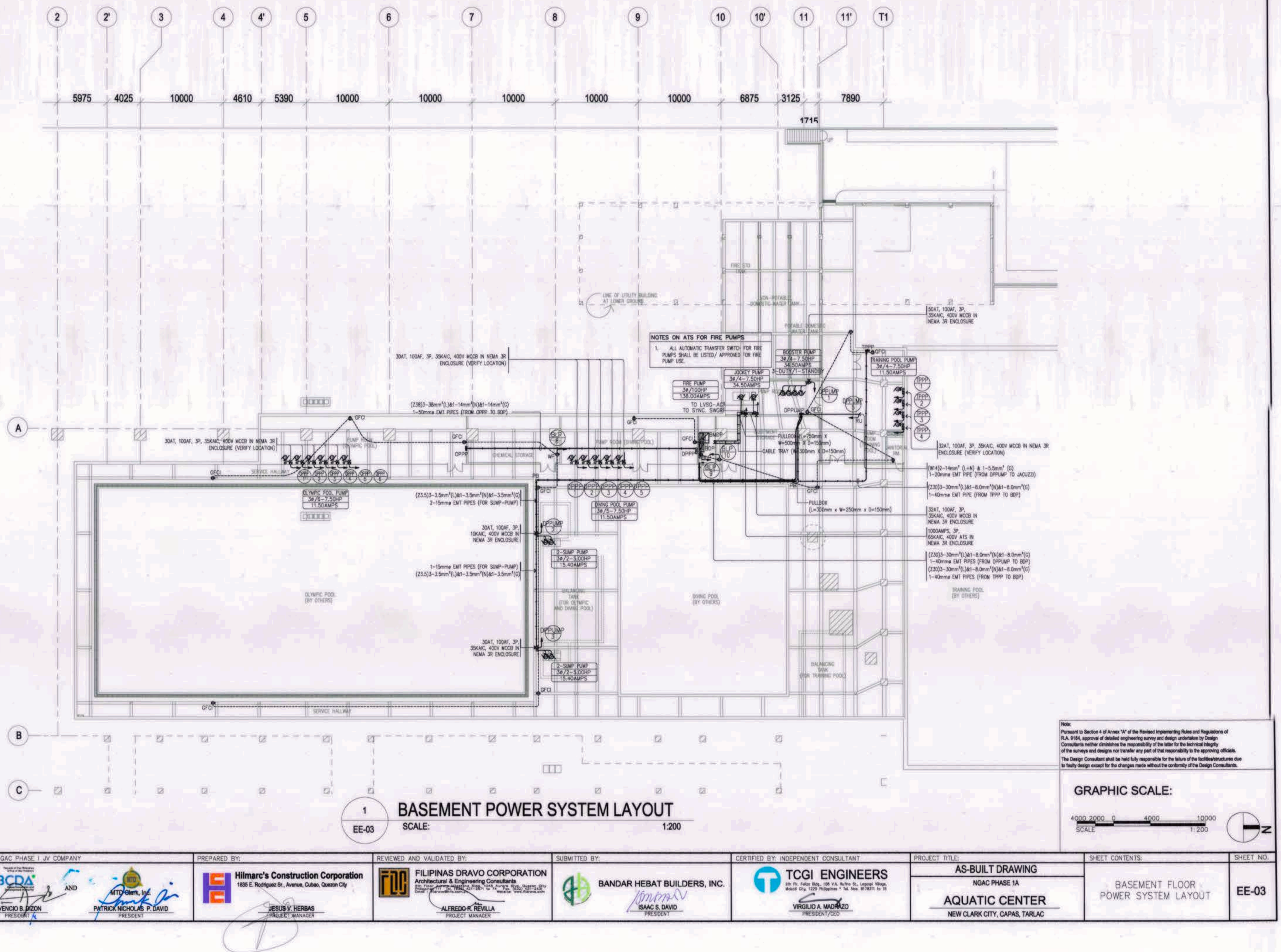
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE 1: 200

N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA VIVENCIO B. DIZON PRESIDENT AND MTD Clerk, Inc. PATRICK NICHOLAS P. DAVID PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	BASEMENT FLOOR LIGHTING SYSTEM LAYOUT	EE-02



Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE 1: 200

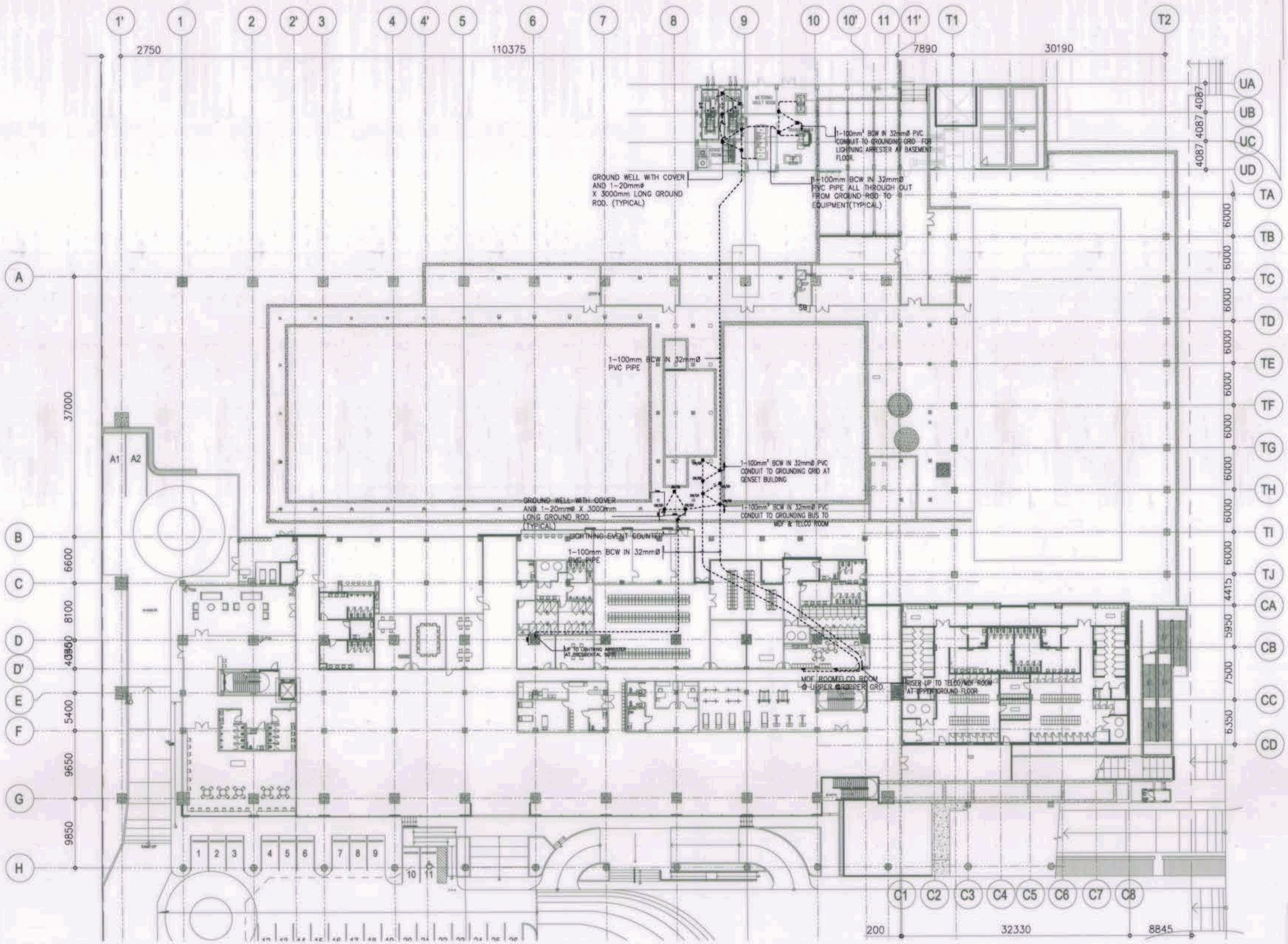
N

1 / EE-03

BASEMENT POWER SYSTEM LAYOUT

SCALE: 1:200

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA — VIVENCIO B. DIZON, PRESIDENT AND MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation, 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City — JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	BASEMENT FLOOR POWER SYSTEM LAYOUT	EE-03



1 / EE-03A

GROUNDING SYSTEM LAYOUT

SCALE: 1:300

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

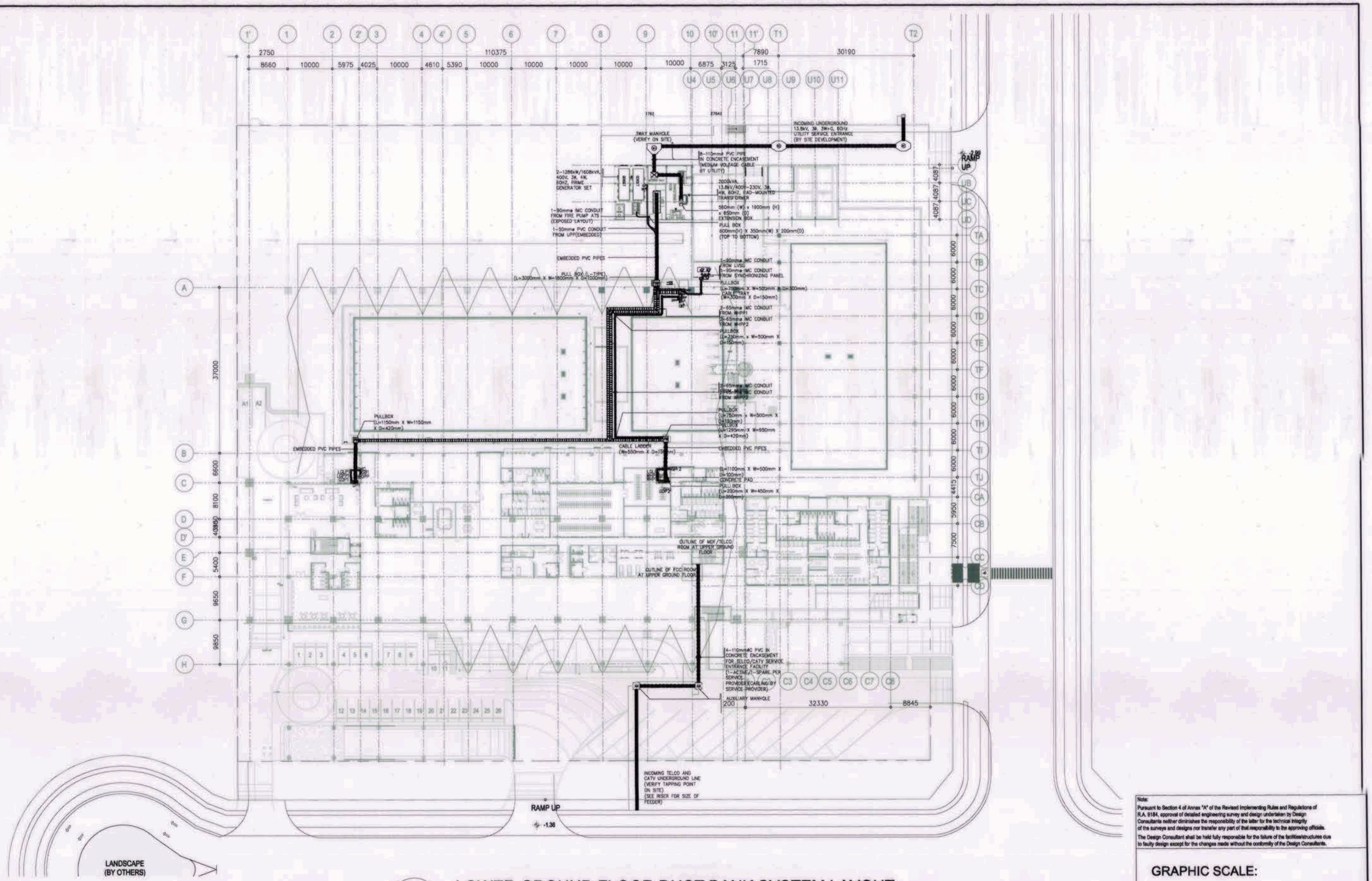
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE 1: 300

N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA — VIVENCIO B. DIZON, PRESIDENT AND MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation, 1635 E. Rodriguez Sr., Avenue, Cubao, Quezon City — JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	BASEMENT FLOOR/POWERHOUSE GROUNDING SYSTEM LAYOUT	EE-03A



Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:
0 4000
SCALE 1:100

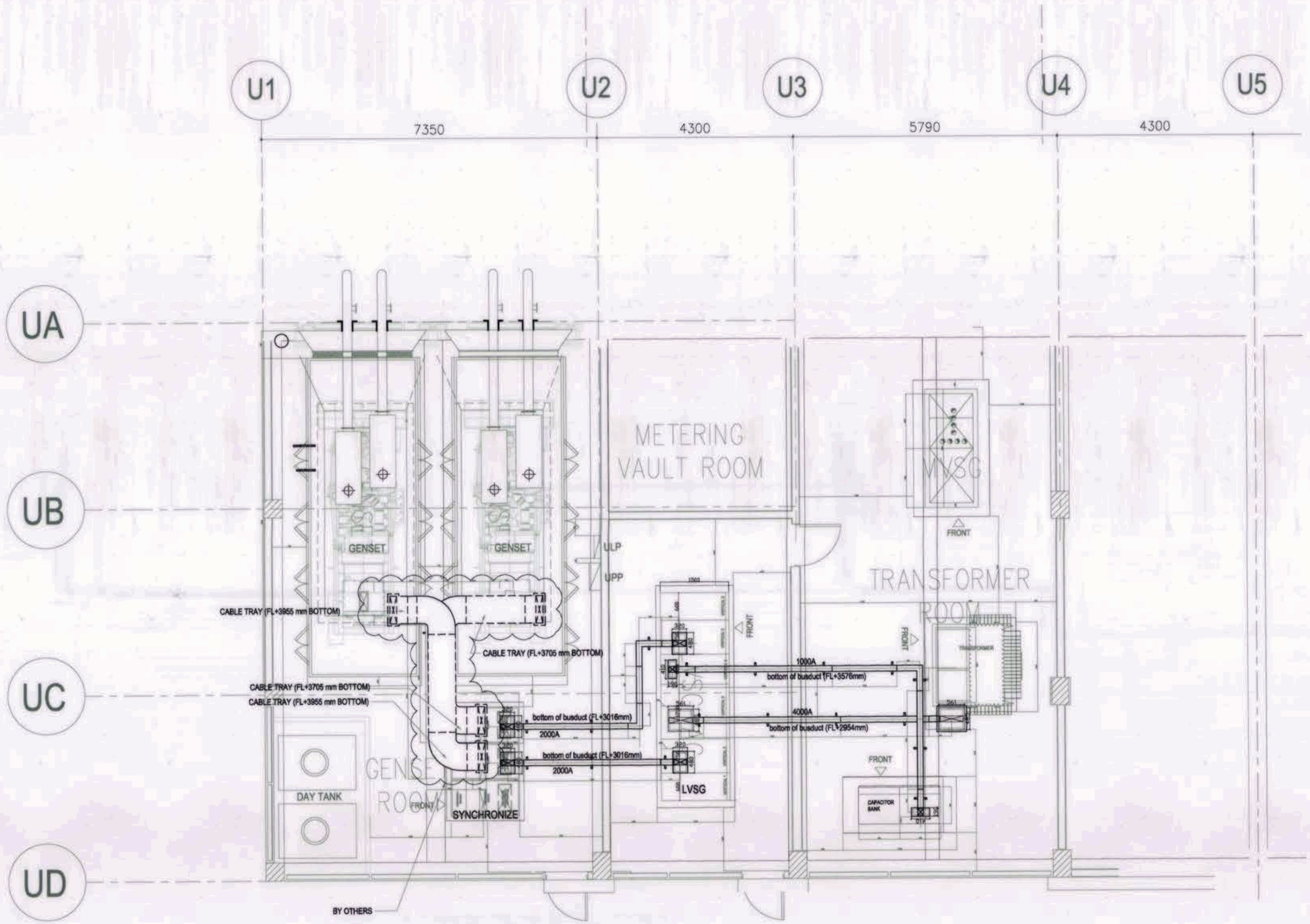
N

1
EE-04

LOWER GROUND FLOOR DUCT BANK SYSTEM LAYOUT

SCALE: 1:400

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA — VIVENCIO B. DIZON, PRESIDENT AND NTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation, 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City — JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	LOWER GROUND FLOOR DUCT BANK SYSTEM LAYOUT	EE-04



1
EE-04A

POWER HOUSE - BUSDUCT LAYOUT

SCALE: 1:50

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

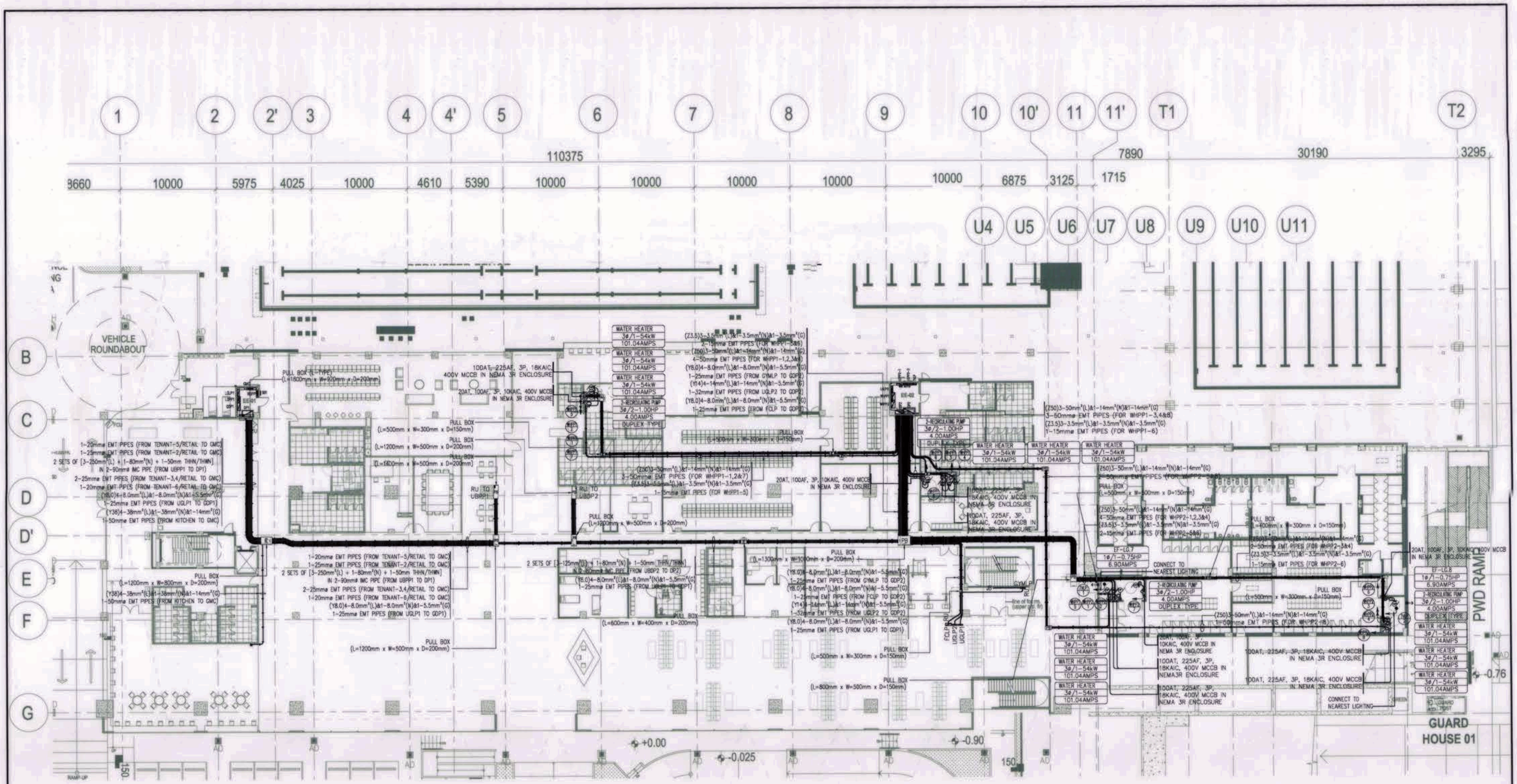
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

0 4000
SCALE 1:50

N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	POWER HOUSE–BUSDUCT LAYOUT	EE-04A



LOWER GROUND FLOOR FEEDERLINE SYSTEM LAYOUT

1 / EE-04B

SCALE: 1:200

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

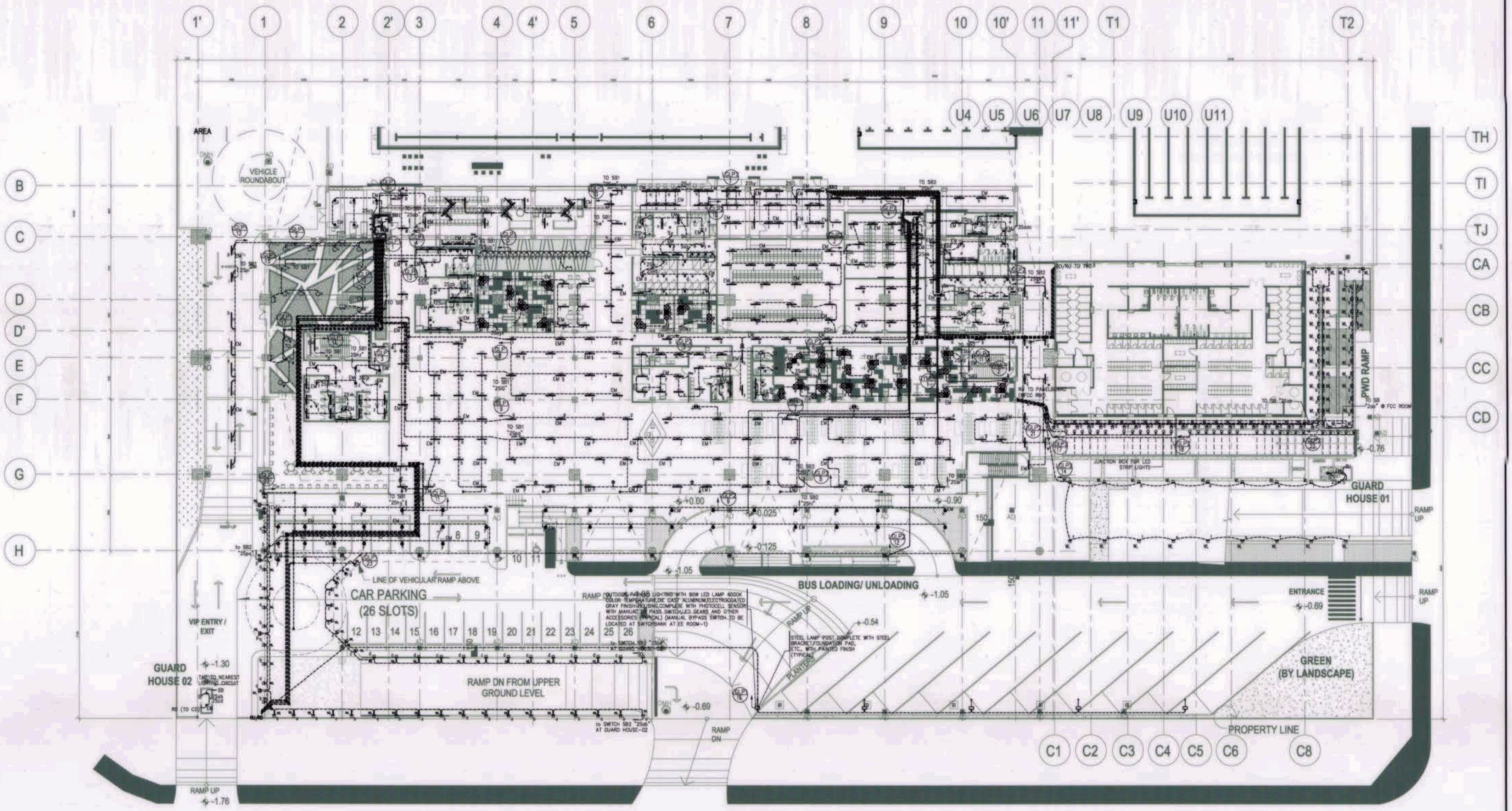
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE 1 : 200

N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	LOWER GROUND FLOOR FEEDERLINE SYSTEM LAYOUT	EE-04B



1
EE-05

LOWER GROUND FLOOR LIGHTING SYSTEM LAYOUT

SCALE: 1:250

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

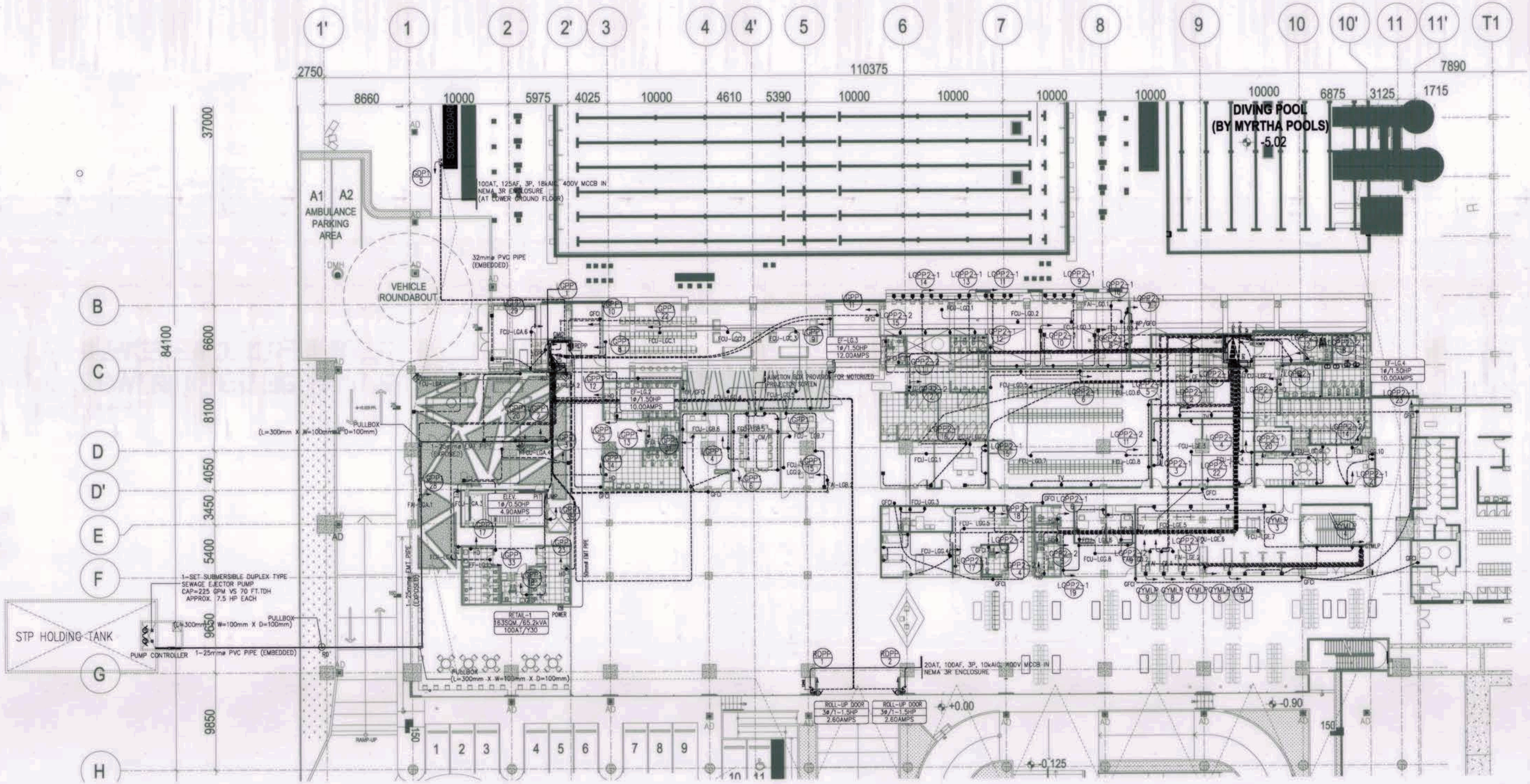
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE 1 : 250

N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA VIVENCIO B. DIZON PRESIDENT AND NTP Clark, Inc. PATRICK NICHOLAS P. DAVID PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	LOWER GROUND FLOOR LIGHTING SYSTEM LAYOUT	EE-05



1
EE-06

LOWER GROUND FLOOR POWER SYSTEM LAYOUT

SCALE: 1:200

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

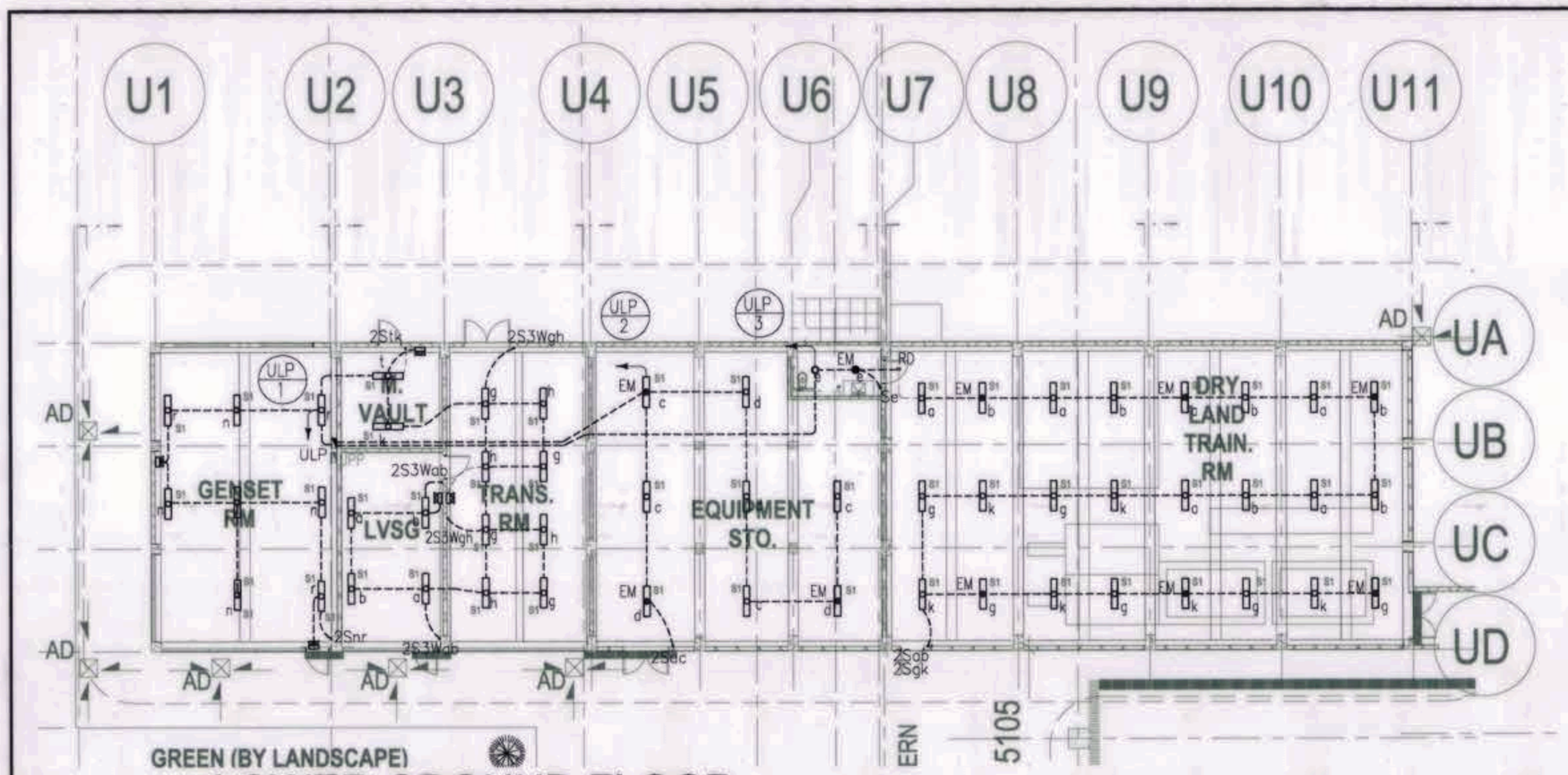
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

SCALE 4000 1: 200

N

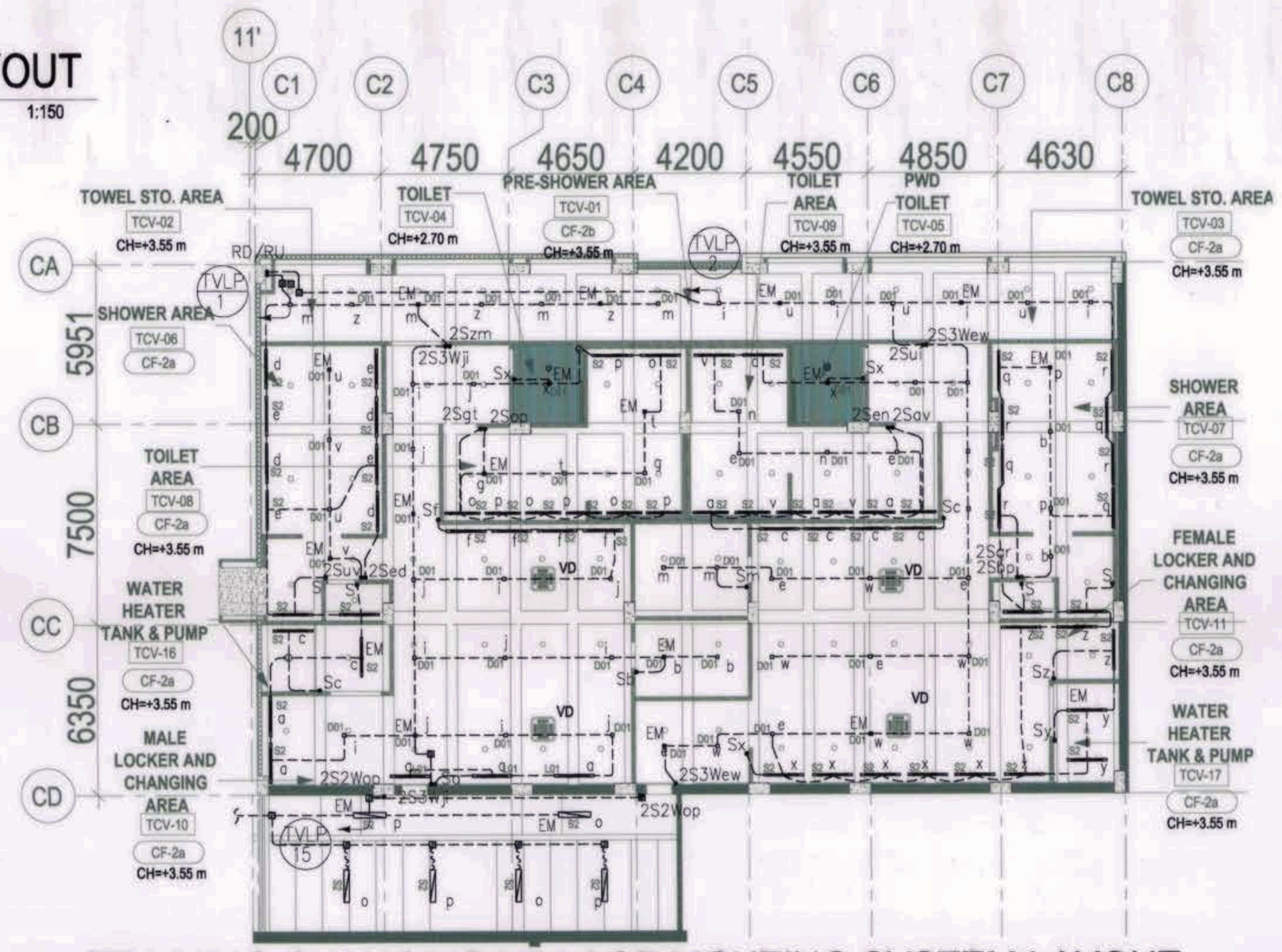
OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA — VIVENCIO B. DIZON, PRESIDENT AND MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation, 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City — JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	LOWER GROUND FLOOR POWER SYSTEM LAYOUT	EE-06



LOWER GROUND FLOOR
POWER HOUSE LIGHTING SYSTEM LAYOUT

1
EE-07

SCALE: 1:150



TRAINING CHANGING VILLAGE LIGHTING SYSTEM LAYOUT

2
EE-07

SCALE: 1:150

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

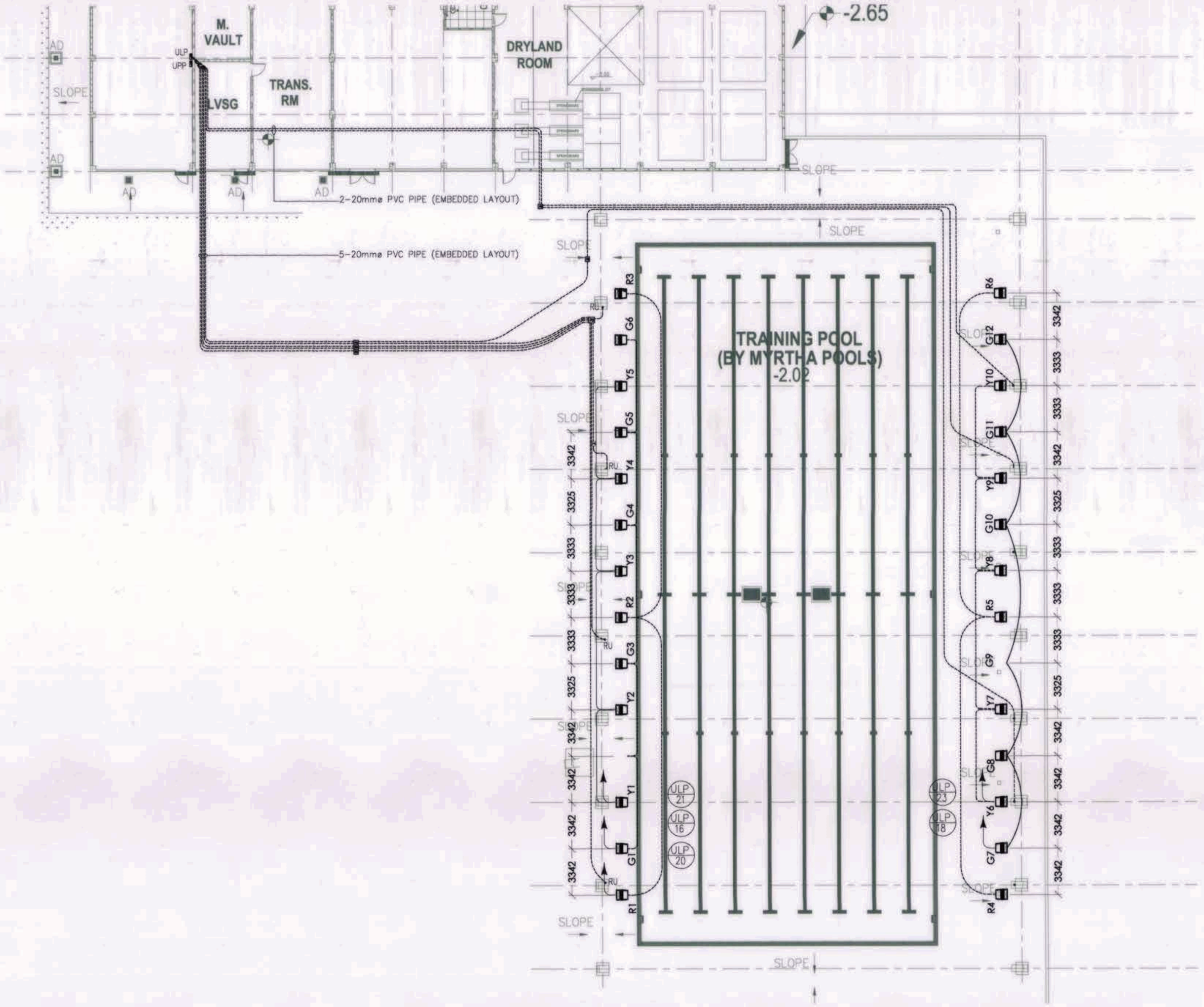
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE 1:150

N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA VIVENCIO B. DIZON PRESIDENT AND MTD Clark, Inc. PATRICK NICHOLAS P. DAVID PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	POWER HOUSE AND TRAINING CHANGING VILLAGE LIGHTING SYSTEM LAYOUT	EE-07



1 / EE-07A

LOWER GROUND FLOOR TRAINING POOL LIGHTING SYSTEM LAYOUT

SCALE: 1:150

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

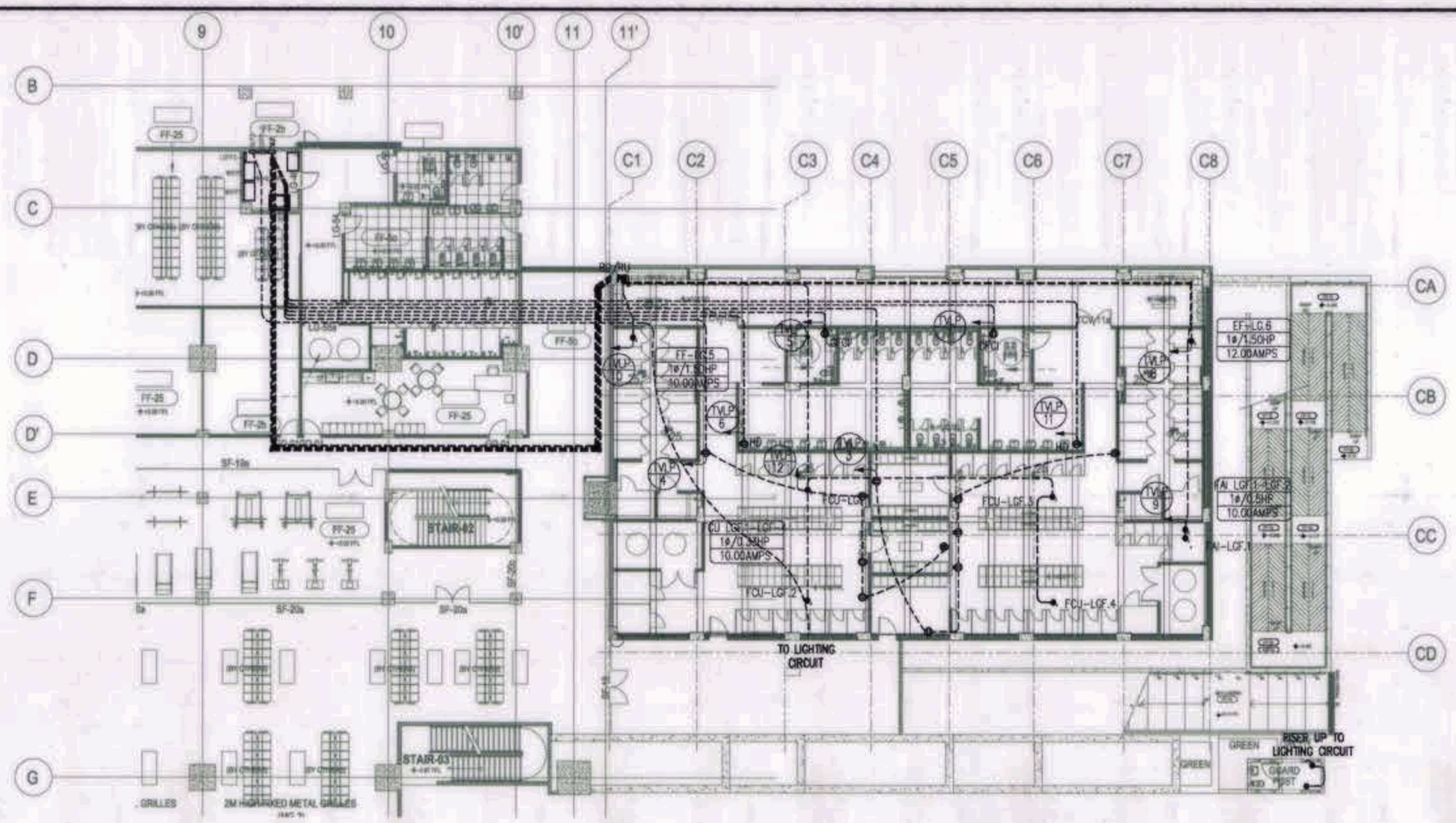
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE 1:150

N

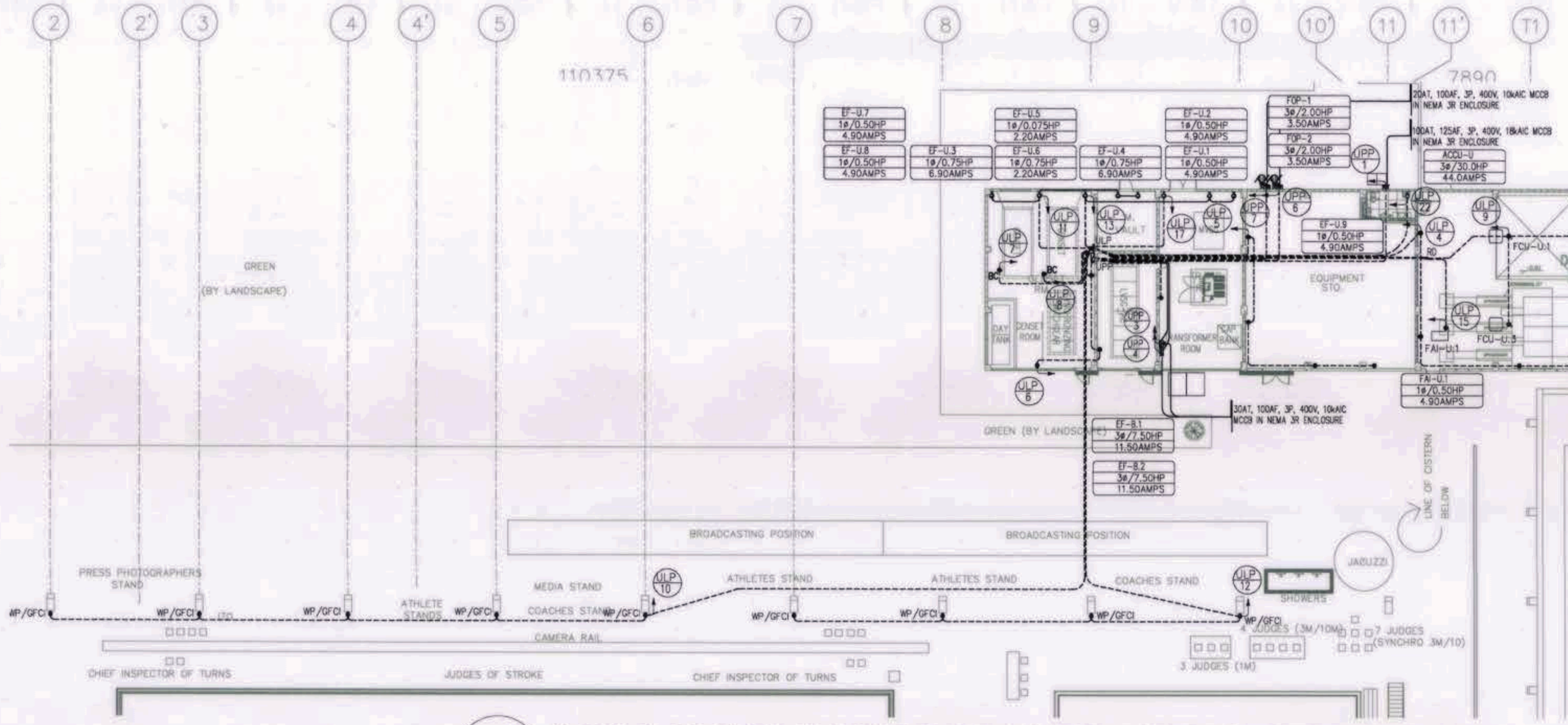
OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:		PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTC Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	TRAINING POOL LIGHTING SYSTEM LAYOUT	EE-07A



LOWER GROUND FLOOR TRAINING CHANGING VILLAGE POWER/FCU SYSTEM LAYOUT

1 / EE-08

SCALE: 1:200



LOWER GROUND FLOOR POWER HOUSE- POWER SYSTEM LAYOUT

2 / EE-08

SCALE: 1:200

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

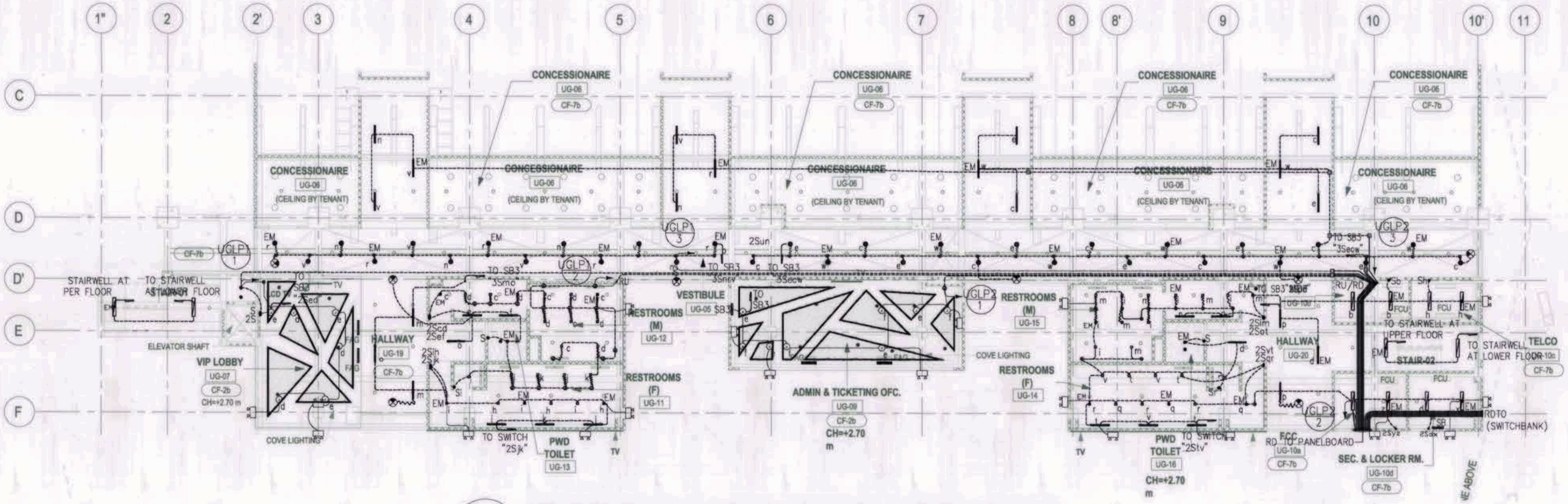
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000
1: 200

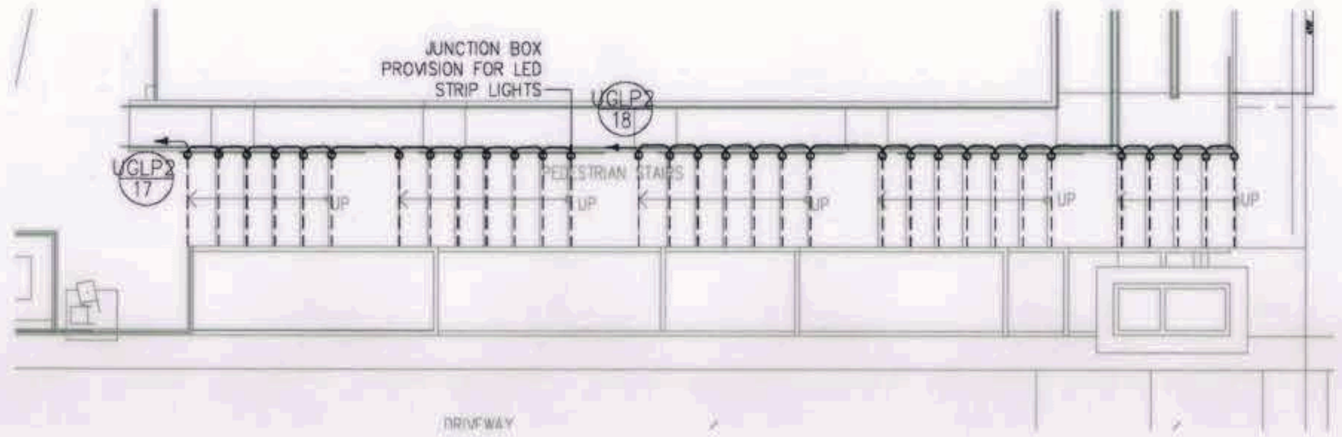
N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:		PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA — VIVENCIO B. DIZON, PRESIDENT AND MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation, 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City — JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	POWER HOUSE AND TRAINING CHANGING VILLAGE POWER/FCU SYSTEM LAYOUT	EE-08



1 / EE-09 **UPPER GROUND FLOOR LIGHTING SYSTEM LAYOUT**

SCALE: 1:150



2 / EE-09 **UPPER GROUND FLOOR-ENLARGED PEDESTRIAN STAIRS LIGHTING SYSTEM LAYOUT**

SCALE: 1:150

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

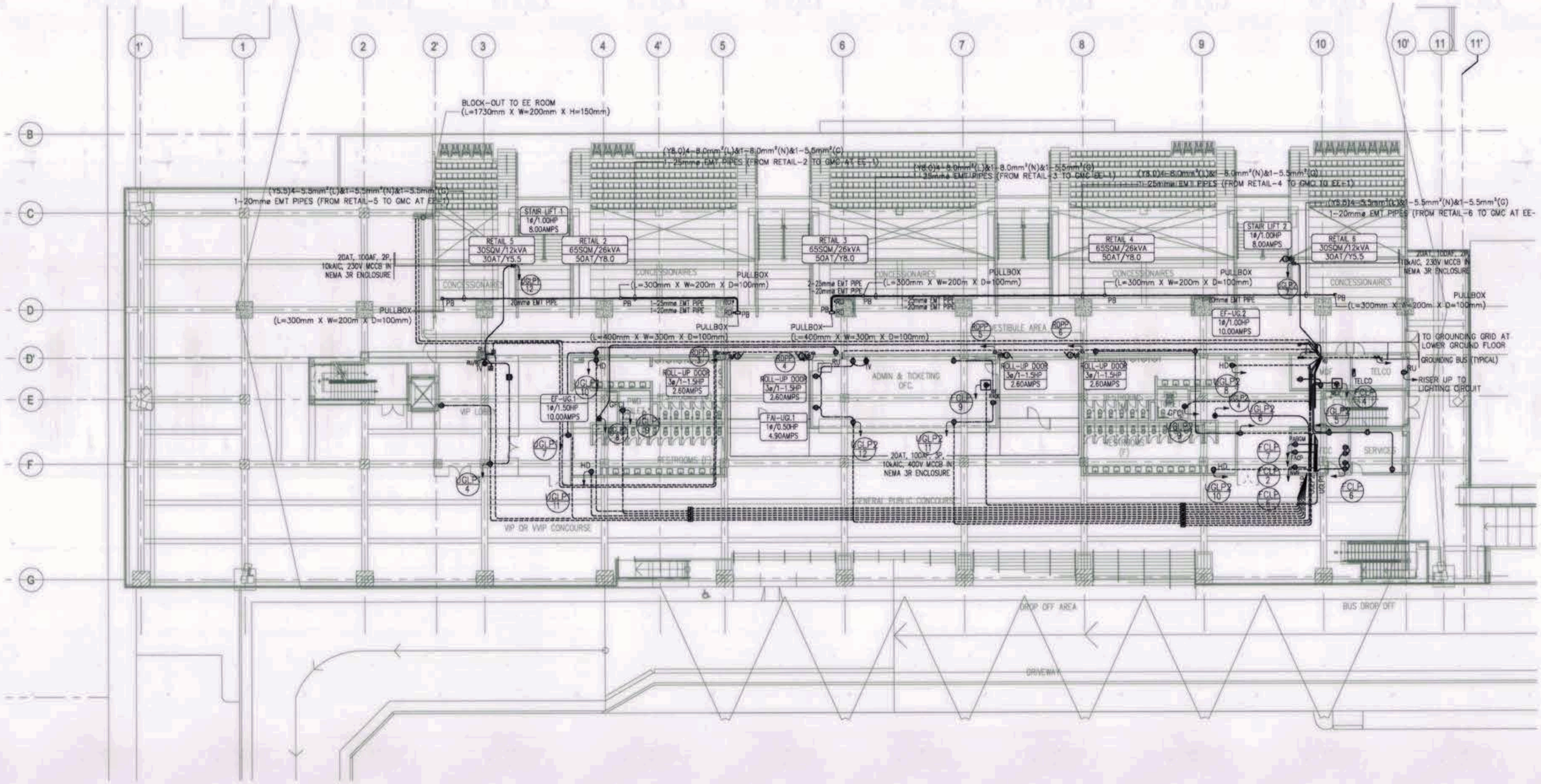
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE 1:150

N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:		PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA — VIVENCIO B. DIZON, PRESIDENT AND NTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation, 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City — JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	UPPER GROUND FLOOR ENLARGED PEDESTRIAN STAIRS LIGHTING SYSTEM LAYOUT	EE-09



1
EE-10

UPPER GROUND FLOOR-POWER SYSTEM LAYOUT

SCALE: 1:200

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

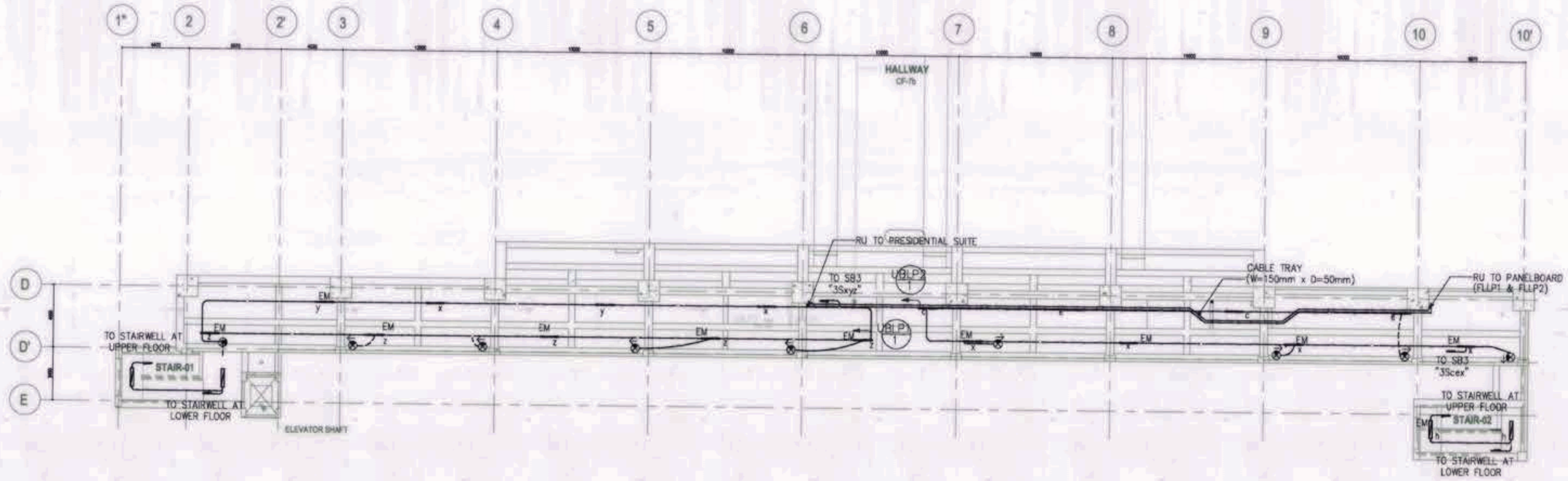
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE 1:200

N

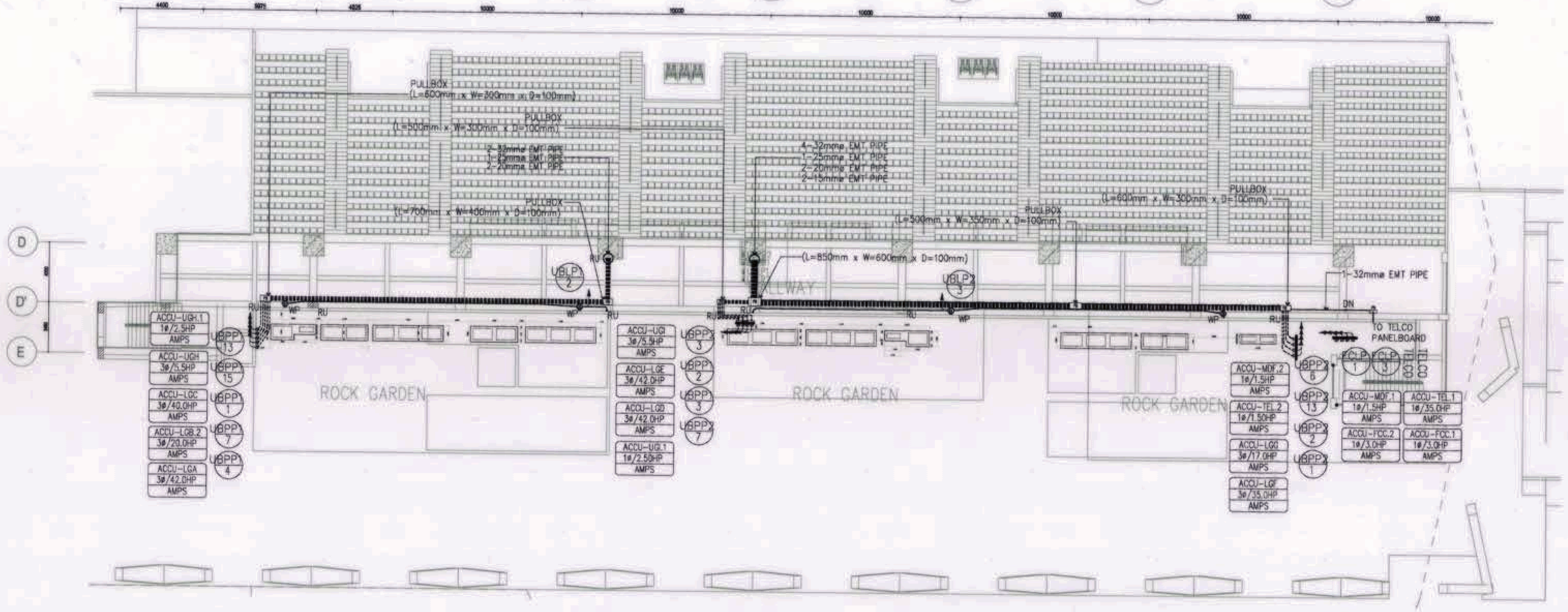
OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA VIVENCIO B. DIZON PRESIDENT AND MTD Clark, Inc. PATRICK NICHOLAS P. DAVID PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	UPPER GROUND FLOOR POWER SYSTEM LAYOUT	EE-10



1
EE-11

UPPER BLEACHER FLOOR-LIGHTING SYSTEM LAYOUT

SCALE: 1:200



2
EE-11

UPPER BLEACHER FLOOR-POWER SYSTEM LAYOUT

SCALE: 1:200

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

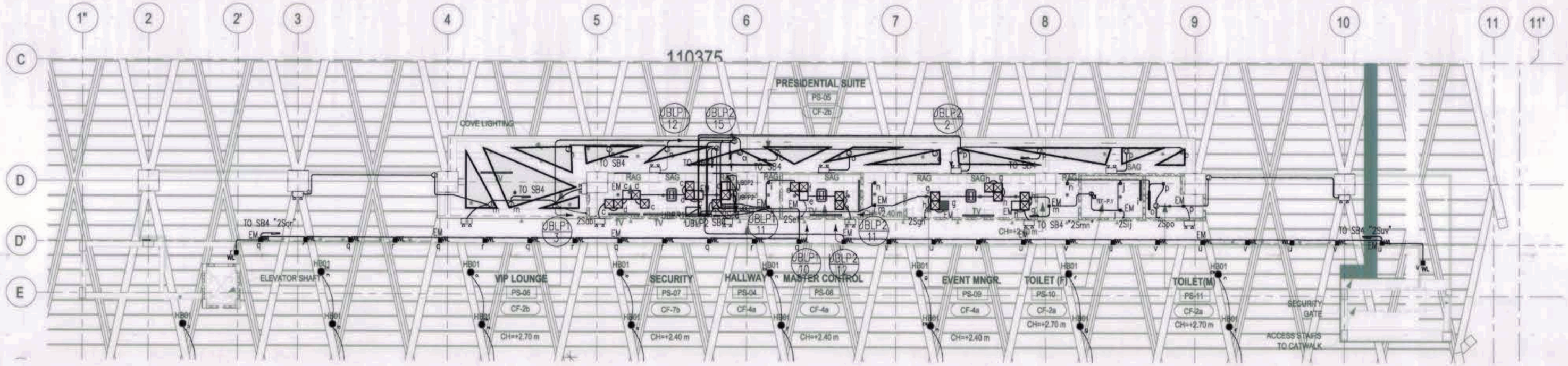
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE 1: 200

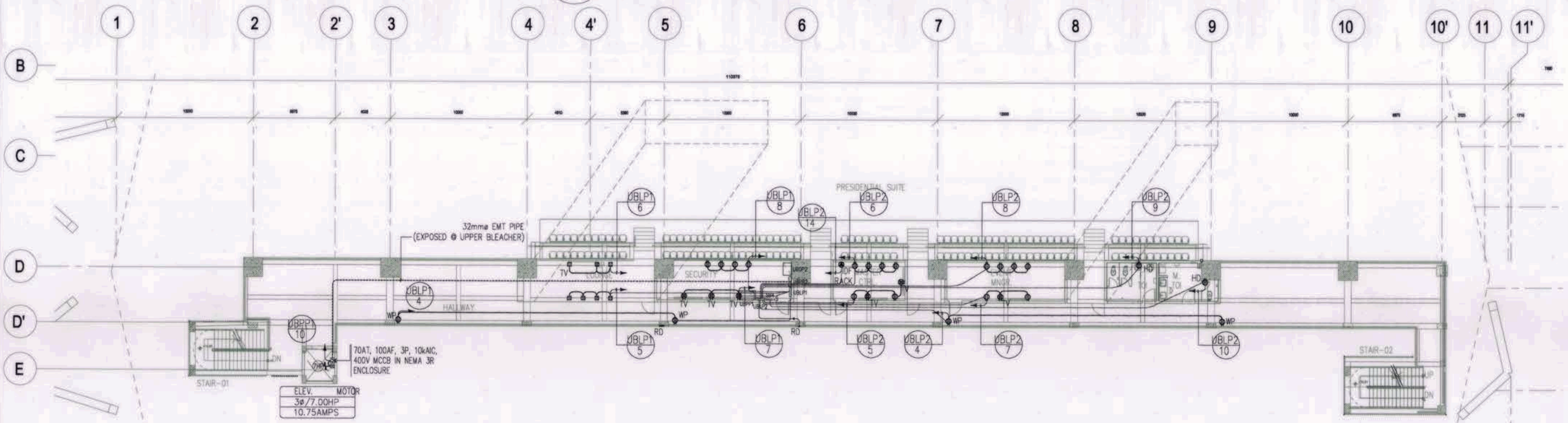
N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	UPPER BLEACHER FLOOR LIGHTING AND POWER SYSTEM LAYOUT	EE-11



1 / EE-12 **PRESIDENTIAL SUITE LIGHTING/LIGHTING WALL SYSTEM LAYOUT**

SCALE: 1:150



2 / EE-12 **PRESIDENTIAL SUITE POWER SYSTEM LAYOUT**

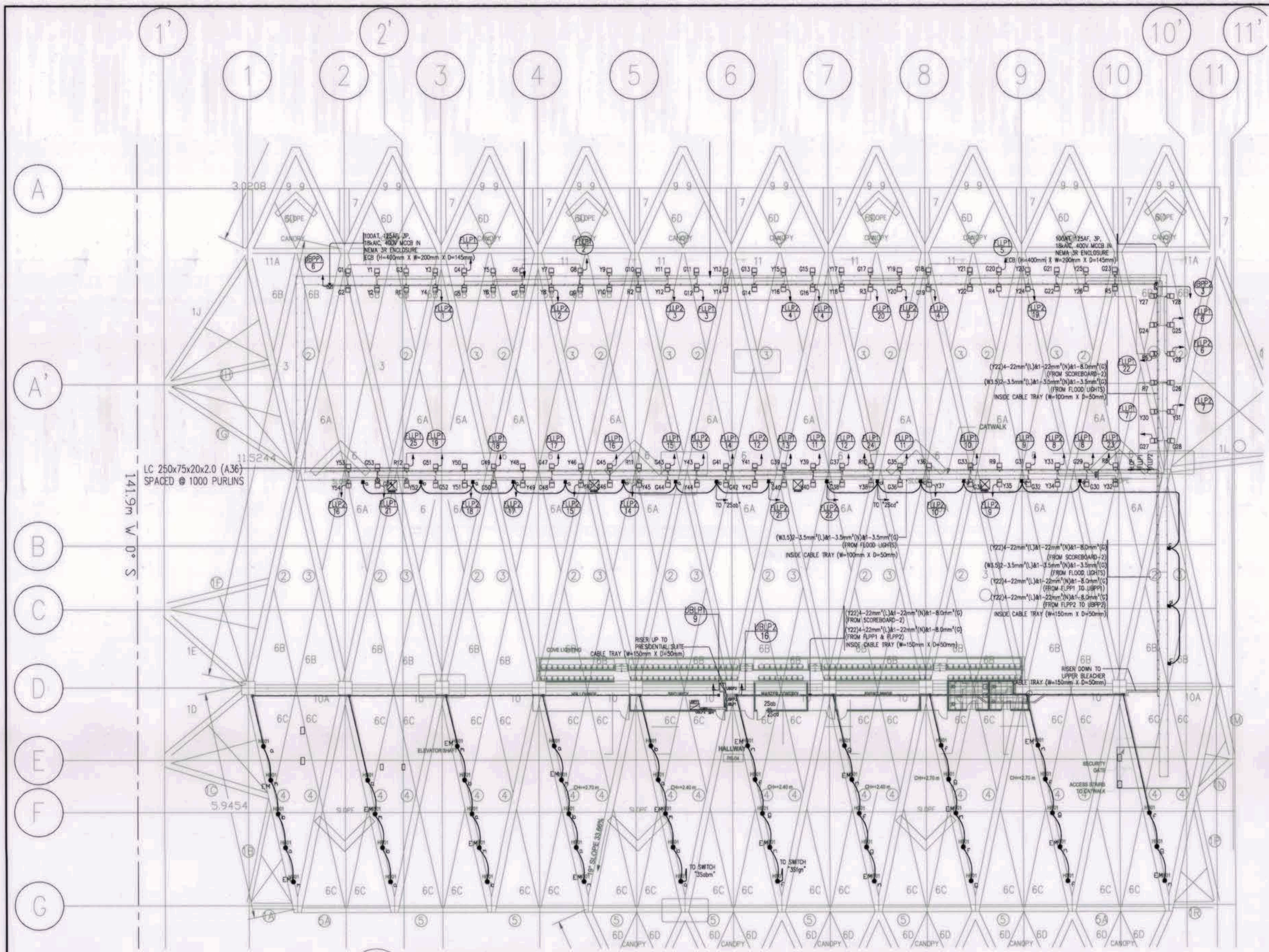
SCALE: 1:200

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE: 4000 1: 200

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc.	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants	BANDAR HEBAT BUILDERS, INC.	TCGI ENGINEERS	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	PRESIDENTIAL SUITE–LIGHTING AND LIGHTING WALL/ POWER SYSTEM LAYOUT	EE-12
VIVENCIO B. DIZON PRESIDENT	PATRICK NICHOLAS P. DAVID PRESIDENT	JESUS V. HERBAS PROJECT MANAGER	ALFREDO B. REVILLA PROJECT MANAGER	ISAAC S. DAVID PRESIDENT	VIRGILIO A. MADRAZO PRESIDENT/CEO		



SWITCHING SEQUENCE OF LIGHTING AT COMPETITION POOL

SWITCHING SEQUENCE#	ON	OFF
1	S1/S2/S3	———
2	S1/S3	S2
3	S2	S1/S3

SWITCHING SEQUENCE # 1.

G1-G25 = 25x240 W
G26-G54 = 29x480 W
Y1-Y29 = 29x240 W
Y30-Y54 = 24x480 W
R1-R6 = 6x240 W
R7-R12 = 480 W

SWITCHING SEQUENCE # 2.

G1-G25 = 25x240 W
G26-G54 = 29x480 W
Y1-Y29 = 29x240 W
Y30-Y54 = 24x480 W

SWITCHING SEQUENCE # 3.

R1-R6 = 6x240 W
R7-R12 = 480 W

1
EE-12A

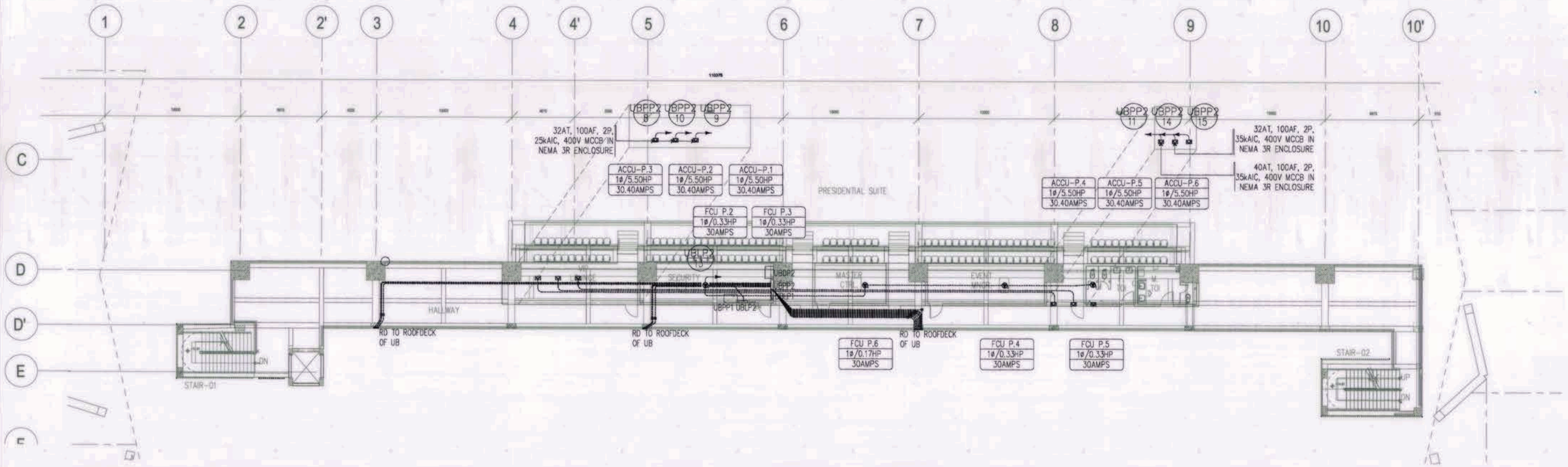
PRESIDENTIAL SUITE-CATWALK LIGHTING SYSTEM LAYOUT

SCALE: 1:200

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:
SCALE 1:200 4000

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA — VIVENCIO B. DIZON, PRESIDENT AND MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation, 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City — JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	PRESIDENTIAL SUITE (CAT WALK) LIGHTING SYSTEM LAYOUT	EE-12A



1 / EE-12B

PRESIDENTIAL SUITE-ROOFDECK POWER SYSTEM LAYOUT

SCALE: 1:200

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

SCALE 4000 1: 200

N

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA VIVENCIO B. OZON PRESIDENT AND MTD Clark, Inc. PATRICK NICHOLAS P. DAVID PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	PRESIDENTIAL SUITE–ROOFDECK POWER SYSTEM LAYOUT	EE-12B

PANEL: "BLP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "BBP" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : BASEMENT LEVEL EE ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
2	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
3	LIGHTS	400/230	1500		5.53			20	100	1	25	MCCB	W3.5
4	LIGHTS	400/230	1500		5.52			20	100	1	25	MCCB	W3.5
5	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
6	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
7	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	CONVENIENCE OUTLET	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
9	CONVENIENCE OUTLET	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
10	CONVENIENCE OUTLET	400/230	1500		5.52			20	100	1	25	MCCB	W3.5
11	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmIC
12	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmIC
13	SPARE	400/230	1500	5.52				20	100	1	25	MCCB	15mmIC
14	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmIC
15	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmIC
16	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmIC
17	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmIC
18	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmIC
				39.13	39.13	39.13							

I = 39.13 AMPS
USE : 1S.0
MAIN : 50AT, 100AF, 400V, 3P, 35KAIC MCCB

PANEL: "DPPP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "BBP" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : BASEMENT LEVEL OLYMPIC POOL PUMP ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	1-7.5HP OLYMPIC POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
2	1-7.5HP OLYMPIC POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
3	1-7.5HP OLYMPIC POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
4	1-7.5HP OLYMPIC POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
5	1-7.5HP OLYMPIC POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
6	1-7.5HP OLYMPIC POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
8	SPARE	400					20.00	50	100	3	35	MCCB	20mmIC
							100.50						

I = 100.50 + 25%(11.50) = 103.38 AMPS
USE : 23S
MAIN : 125AT, 225AF, 400V, 3P, 35KAIC MCCB

PANEL: "DPPP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "BBP" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : BASEMENT LEVEL DIVING POOL PUMP ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	1-7.5HP DIVING POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
2	1-7.5HP DIVING POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
3	1-7.5HP DIVING POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
4	1-7.5HP DIVING POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
5	1-7.5HP DIVING POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
6	SPARE	400					20.00	50	100	3	35	MCCB	25mmIC
7	SPARE	400					20.00	50	100	3	35	MCCB	20mmIC
							97.50						

I = 97.50 + 25%(11.50) = 100.34 AMPS
USE : 23S
MAIN : 125AT, 225AF, 400V, 3P, 35KAIC MCCB

PANEL: "TPPP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "BBP" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : BASEMENT LEVEL TRAINING POOL PUMP ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	1-7.5HP TRAINING POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
2	1-7.5HP TRAINING POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
3	1-7.5HP TRAINING POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
4	1-7.5HP TRAINING POOL PUMP	400					11.50	30	100	3	35	MCCB	Z3.5
5	SPARE	400					20.00	30	100	3	35	MCCB	25mmIC
6	SPARE	400					20.00	30	100	3	35	MCCB	20mmIC
							86.00						

I = 86.00 + 25%(11.50) = 88.88 AMPS
USE : Z3S
MAIN : 125AT, 225AF, 400V, 3P, 35KAIC MCCB

PANEL: "SPPUMP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "BBP" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : BASEMENT LEVEL TRAINING POOL PUMP ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	4-7.5HP BOOSTER PUMP (3-DUTY, 1-SPARE)	400					34.50	50	100	3	35	MCCB	Z8.0
2	2-5HP SUMP PUMP	400					20.00	50	100	3	35	MCCB	W14
3	2-3HP SUMP PUMP	400					15.40	30	100	3	35	MCCB	Z3.5
4	JACUZZI	400					15.40	30	100	3	35	MCCB	Z3.5
							85.30						

I = 85.30 + 35%(11.50) = 88.18 AMPS
USE : Z3S
MAIN : 125AT, 150AF, 400V, 3P, 35KAIC MCCB

PANEL: "SWDP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "LVSG-AC" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : BASEMENT LEVEL EE ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	BBP	400		160.62	167.58	186.96	453.30	700	800	3	70	MCCB	SEE BDP
2	WWP1	400					462.16	500	600	3	50	MCCB	SEE WWP1
3	WWP2	400					462.16	500	600	3	50	MCCB	SEE WWP2
4	SPARE	400		250.00	250.00	250.00		500	600	3	50	MCCB	110mmIC
				410.62	417.58	436.96	1377.62						

I = (417.58 + 1377.62) x 80%D.F. + 25%(44.00) = 1447.20 AMPS
USE : 8 SETS OF 3-250mm²(L) + 1-100mm²THHN(N) + 1-100mm²THHN(G) +1-100mm IN 8-110H PVC PIPE
MAIN : 1600AT, 1600AF, 400V, 3P, 50KAIC MCCB

PANEL: "LLP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "LVSG-AC" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND FLOOR GENSET ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
2	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
3	LIGHTS	400/230	1500		5.52			20	100	1	25	MCCB	W3.5
4	CONVENIENCE OUTLET	400/230	1500		5.52			20	100	1	25	MCCB	W3.5
5	CONVENIENCE OUTLET	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
6	SPARE	400/230	1500					20	100	1	25	MCCB	W3.5
7	BATTERY CHARGER	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	BATTERY CHARGER	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
9	0.2HP FDU U3-U4	400/230	1500		14.40			32	100	1	25	MCCB	W5.5
10	CONVENIENCE OUTLET (GFCI)	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
11	0.2HP EF U.5-U.6 0.5HP EF U.7-U.8	400/230				13.80		32	100	1	25	MCCB	W5.5
12	CONVENIENCE OUTLET (GFCI)	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
13	1.0HP EF U.1-3	400/230		8.00				30	100	1	25	MCCB	W3.5
14	SPARE	400/230						20	100	1	25	MCCB	15mmIE EMT
15	0.5HP FAN U.1	400/230			4.90			20	100	1	25	MCCB	W3.5
16	TRAINING POOL LIGHTS	400/230	1500		5.52			20	100	1	25	MCCB	W3.5
17	0.5HP EF U.4	400/230				4.90		20	100	1	25	MCCB	W3.5
18	TRAINING POOL LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
19	SPARE	400/230		8.00				20	100	1	25	MCCB	15mmIE EMT
20	TRAINING POOL LIGHTS	400/230	1500	5.01				20	100	1	25	MCCB	W3.5
21	TRAINING POOL LIGHTS	400/230	1500		5.52			20	100	1	25	MCCB	W3.5
22	0.5HP EF U.8	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
23	TRAINING POOL LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
24	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmIE EMT
				50.89	58.43	57.85							

I = 58.43+ 25%(8.00) = 60.43 AMPS
USE : 11H
MAIN : 80AT, 100AF, 400V, 3P, 35KAIC MCCB

PANEL: "LGPP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "LVSG-AC" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND FLOOR GENSET ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	30.00HP ACCU-U	400					44.00	100	125	3	35	MCCB	Z14
2	ULP	400		50.89	58.43	57.83		70	100	3	35	MCCB	Y14
3	7.5HP EF IL1	400					11.50	30	100	3	35	MCCB	Z3.5
4	7.5HP EF IL2	400					11.50	30	100	3	35	MCCB	Z3.5
5	SPARE	400					10.00	30	100	3	35	MCCB	20mmIC
6	2.0HP FDP 1	400					3.50	20	100	3	35	MCCB	Z3.5
7	2.0HP FDP 2	400					3.50	20	100	3	35	MCCB	Z3.5
8	SPACE	400											
				50.89	58.43	57.43	84.00						

I = 58.43 + 84.00 + 25%(44.00) = 153.43 AMPS
USE : 2IS
MAIN : 175AT, 225AF, 400V, 3P, 35KAIC MCCB

PANEL: "BSP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "BBP" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : BASEMENT LEVEL EE ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	UPP	400		50.89	58.43	57.83	84.00	175	225	3	22	MCCB	Z60
2	GPPP	400					100.50	125	150	3	18	MCCB	Z28
3	DPPUMP	400					85.30	125	150	3	18	MCCB	Z30
4	SPPP	400					97.50	125	150	3	18	MCCB	Z28
5	TPPP	400					86.00	125	150	3	18	MCCB	Z30
6	SPACE												
7	SPARE	400		70.00	70.00	70.00		100	125	3	18	MCCB	32mmIC
8	BLP	400		39.13	39.13	39.13		70	100	3	18	MCCB	Y8.0
				160.02	167.56	166.96	453.30						

I = 167.56 + 453.30 + 25%(44.00) = 631.86 AMPS
USE : 2 SETS OF 3-250mm²(L/N) + 1-80mm²THHN(N) + 1-50mm²THHN(G) IN 2-110H PVC PIPE
MAIN : 700AT, 800AF, 400V, 3P, 70KAIC MCCB

PANEL: "WWP1" TYPICAL TO " WWP2" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "BMDP" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : BASEMENT LEVEL TRAINING POOL PUMP ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	1-54kW WATER HEATER	400	54000				77.9	160	225	3	35	MCCB	Z50
2	1-54kW WATER HEATER	400	54000				77.9	160	225	3	35	MCCB	Z50
3	1-54kW WATER HEATER	400	54000				77.9	160	225	3	35	MCCB	Z50
4	1-54kW WATER HEATER	400	54000				77.9	160	225	3	35	MCCB	Z50
5	1-54kW WATER HEATER	400	54000				77.9	100	100	3	35	MCCB	Z30
6	2-1.0HP RECIRCULATING PUMP	400	54000				4.00	20	100	3	35	MCCB	Z3.5
7	2-1.0HP RECIRCULATING PUMP	400	54000				4.00	20	100	3	35	MCCB	Z3.5
8	1-54kW WATER HEATER	400	54000				77.9	100	100	3	35	MCCB	Z30
							475.4						

I = 475.4 + 25%(4.00) = 476.4 AMPS
USE : 2D12S
MAIN : 500AT, 630AF, 400V, 3P, 50KAIC MCCB

PANEL: "SDPP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "SDP1" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 1 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	1.5HP-ROLL-UP DOOR	400	1802				2.60	20	100	3	35	MCCB	Z3.5
2	1.5HP-ROLL-UP DOOR	400	1802				2.60	20	100	3	35	MCCB	Z3.5
3	1.5HP-ROLL-UP DOOR	400	1802				2.60	20	100	3	35	MCCB	Z3.5
4	1.5HP-ROLL-UP DOOR	400	1802				2.60	20	100	3	35	MCCB	Z3.5
5	1.5HP-ROLL-UP DOOR	400	1802				2.60	20	100	3	35	MCCB	Z3.5
6	1.5HP-ROLL-UP DOOR	400	1802				2.60	20	100	3	35	MCCB	Z3.5
7	SPARE	400					5.00	20	100	3	35	MCCB	15mmIE EMT
8	SPARE	400					5.00	20	100	3	35	MCCB	15mmIE EMT
9	SPARE	400					5.00	30	100	3	35	MCCB	15mmIE EMT
10	SPARE	400					5.00	20	100	3	35	MCCB	15mmIE EMT
							35.60						

I = 35.60 + 25%(2.60) = 38.25 AMPS
USE : 2IS
MAIN : 50AT, 100AF, 400V, 3P, 35KAIC MCCB

PANEL: "LGPP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "LVSG-AC" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 1 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
2	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
3	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
4	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
5	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
6	SPARE							20	100	1	25	MCCB	W3.5
7	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
9	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
10	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
11	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
12	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
13	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
14	STAIR LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
15	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	15mmIE
16	LAMP POST	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
17	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	15mmIE
18	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmIE
19	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	15mmIE
20	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmIE
21	SPARE							20	63	1	4.5	MCCB	W3.5
22	PROVISION FOR RAMP LIGHTS	400/230	1500		6.52			20	63	1	4.5	MCCB	W3.5
23	PROVISION FOR RAMP LIGHTS	400/230	1500			6.52		20	63	1	4.5	MCCB	W3.5
24	SPARE	400/230	1500			6.52		20	63	1	4.5	MCCB	15mmIE
				52.17	52.17	52.17							

I = 52.17 AMPS
USE : 11H
NOTE : ALL RESIDUAL CIRCUIT BREAKERS (RCBO) SHALL HAVE BUILT-IN OVERLOAD PROTECTION.

"WATER CENTER-GMC" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DPP" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 1 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LEASABLE AREA (RETAIL-1)	400	65200	94.11	94.11	94.11		125	225	3	35	MCCB	Y30
2	LEASABLE AREA (RETAIL-2)	400	26000	37.53	37.53	37.53		50	100	3	35	MCCB	Y8.0
3	LEASABLE AREA (RETAIL-3)	400	26000	37.52	37.53	37.53		50	100	3	35	MCCB	Y8.0
4	LEASABLE AREA (RETAIL-4)	400	26000	37.53	37.53	37.53		50	100	3	35	MCCB	Y8.0
5	LEASABLE AREA (RETAIL-5)	400	12000	17.32	17.32	17.32		32	100	3	35	MCCB	Y5.5
6	LEASABLE AREA (RETAIL-6)	400	12000	17.32	17.32	17.32		32	100	3	35	MCCB	Y5.5
7	SPACE	400		-	-	-		-	100	-	-	-	-
				241.34	241.34	241.34							

I = 241.34 AMPS
USE : Y15D
MAIN : 315AT, 400AF, 400V, 3P, 50KAIC

PANEL: "DDPP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DPP" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 1 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LGPP1	400		91.59	89.77	87.89		100	125	3	35	MCCB	Y30
2	LGLP1	400		52.17	52.17	52.17		80	100	3	35	MCCB	Y14
3	LGLP1	400		40.81	40.81	39.68		50	100	3	35	MCCB	Y8.0
4	ECPP	400					35.90	50	100	3	35	MCCB	Z8.0
5	SCOREBOARD 1	400		72.17	72.17	72.17		100	100	3	35	MCCB	Y22
6	SPARE	400		70.00	70.00	70.00		32	125	3	35	MCCB	32mmIE EMT
				254.37	252.55	248.75	35.90						

I = (254.37 +47.80) x 80%D.F. + 25%(12.00) =243.74 AMPS
USE : Y20D
MAIN : 350AT, 400AF, 400V, 3P, 50KAIC MCCB

PANEL: "ULLP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DPP" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 1 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
2	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
3	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
4	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
5	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
6	SPARE							20	100	1	25	MCCB	W3.5
7	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
9	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
10	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
11	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
12	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
13	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
14	STAIR LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
15	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	15mmIE
16	LAMP POST	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
17	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	15mmIE
18	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmIE
19	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	15mmIE
20	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmIE
21	SPARE							20	63	1	4.5	MCCB	W3.5
22	PROVISION FOR RAMP LIGHTS	400/230	1500		6.52			20	63	1	4.5	MCCB	W3.5
23	PROVISION FOR RAMP LIGHTS

PANEL: "ULP1" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP1" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : PRESIDENTIAL SUITE SECURITY ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
2	CONVENIENCE OUTLET	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
3	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
4	CONVENIENCE OUTLET	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
5	CONVENIENCE OUTLET	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
6	CONVENIENCE OUTLET	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
7	CONVENIENCE OUTLET	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	CONVENIENCE OUTLET	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
9	SPARE	400/230	1500				6.52	20	100	1	25	MCCB	15mmC
10	PROVISION FOR WALL LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
11	LIGHTS	400/230	1500				6.52	20	100	1	25	MCCB	W3.5
12	LIGHTS	400/230	1500				6.52	20	100	1	25	MCCB	W3.5
13	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmC
14	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmC
15	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmC
16	LIGHTS (HI-BAY)	400/230	1500			6.52		20	100	1	25	MCCB	15mmC
17	SPARE	400/230	1500				6.52	20	100	1	25	MCCB	15mmC
18	SPARE	400/230	1500				6.52	20	100	1	25	MCCB	15mmC
				39.13	39.13	39.13							

I = 39.13 AMPS
USE : 175.0
MAIN : 50AT, 100AF, 400V, 3P, 35KAIC MCCB

PANEL: "LDP2-1" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP2" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 2 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	CONVENIENCE OUTLET	400/230		6.52				20	100	1	25	MCCB	W3.5
2	CONVENIENCE OUTLET	400/230		6.52				20	100	1	25	MCCB	W3.5
3	CONVENIENCE OUTLET	400/230			6.52			20	100	1	25	MCCB	W3.5
4	CONVENIENCE OUTLET	400/230			6.52			20	100	1	25	MCCB	W3.5
5	CONVENIENCE OUTLET	400/230				6.52		20	100	1	25	MCCB	W3.5
6	CONVENIENCE OUTLET	400/230				6.52		20	100	1	25	MCCB	W3.5
7	CONVENIENCE OUTLET	400/230		6.52				20	100	1	25	MCCB	W3.5
8	CONVENIENCE OUTLET	400/230		6.52				20	100	1	25	MCCB	W3.5
9	CONVENIENCE OUTLET	400/230			6.52			20	100	1	25	MCCB	W3.5
10	CONVENIENCE OUTLET	400/230			6.52			20	100	1	25	MCCB	W3.5
11	CONVENIENCE OUTLET	400/230				6.52		20	100	1	25	MCCB	W3.5
12	CONVENIENCE OUTLET	400/230				6.52		20	100	1	25	MCCB	W3.5
13	CONVENIENCE OUTLET	400/230		6.52				20	100	1	25	MCCB	W3.5
14	CONVENIENCE OUTLET	400/230		6.52				20	100	1	25	MCCB	W3.5
15	CONVENIENCE OUTLET	400/230			6.52			20	100	1	25	MCCB	W3.5
16	CONVENIENCE OUTLET	400/230			6.52			20	100	1	25	MCCB	W3.5
17	CONVENIENCE OUTLET	400/230				6.52		20	100	1	25	MCCB	W3.5
18	CONVENIENCE OUTLET	400/230				6.52		20	100	1	25	MCCB	W3.5
19	CONVENIENCE OUTLET	400/230		6.52				20	100	1	25	MCCB	W3.5
20	CONVENIENCE OUTLET	400/230		6.52				20	100	1	25	MCCB	W3.5
21	CONVENIENCE OUTLET	400/230			6.52			20	100	1	25	MCCB	W3.5
22	CONVENIENCE OUTLET	400/230			6.52			20	100	1	25	MCCB	W3.5
23	SPARE	400/230				6.52		20	100	1	25	MCCB	15mmE EMT
24	SPARE	400/230				6.52		20	100	1	25	MCCB	15mmE EMT
25	CONVENIENCE OUTLET	400/230		6.52				20	100	1	25	MCCB	W3.5
26	SPARE	400/230		6.52				20	100	1	25	MCCB	15mmE EMT
27	SPARE	400/230			6.52			20	100	1	25	MCCB	15mmE EMT
28	SPARE	400/230			6.52			20	100	1	25	MCCB	15mmE EMT
29	SPARE	400/230				6.52		20	100	1	25	MCCB	15mmE EMT
30	SPARE	400/230				6.52		20	100	1	25	MCCB	15mmE EMT
				65.22	65.22	65.22							

I = 65.22 AMPS
USE : 122
MAIN : 100AT, 100AF, 400V, 3P, 35KAIC MCCB

PANEL: "DP1" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP1" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : PRESIDENTIAL SUITE SECURITY ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	1-40.0HP, ACCU-LDC	400/230						60.00	125	225	3	35	MCCB 222
2	1-42.0HP, ACCU-LDE	400/230						60.00	125	225	3	35	MCCB 222
3	1-42.0HP, ACCU-LGD	400/230						63.00	125	225	3	35	MCCB 222
4	1-42.0HP, ACCU-LGA	400/230						63.00	125	225	3	35	MCCB 222
5	POWER PROVISION FOR SCOREBOARD	400/230						30.40	100	100	3	35	MCCB Y8.0
6	FLUP1	400/230							100	100	3	35	MCCB Y22
7	1-20.0HP, ACCU-LGB.2	400/230		48.78	48.78	48.78		30.00	63	100	3	35	MCCB Y8.0
8	UBJP1	400/230		39.13	39.13	39.13			50	100	3	35	MCCB Y8.0
9	1-7.5HP, ELEVATOR MOTOR	400/230					10.75	63	100	3	35	MCCB	Y14
10	SPARE	400/230		15.00				32	100	3	35	MCCB	20mmE EMT
11	1-5.5HP, ACCU-UGH					15.00		100	100	1	25	MCCB	20mmE EMT
12	SPARE					15.00		50	100	1	25	MCCB	20mmE EMT
13	1-2.5HP ACCU-UGH.1	400/230		14.50				100	100	1	25	MCCB	W8.0
14	SPARE	400/230		15.00				50	100	1	25	MCCB	20mmE EMT
15	SPARE	400/230			15.00			50	100	1	25	MCCB	20mmE EMT
				132.41	102.98	117.81	317.55						

I = 132.41 + 317.55 + 25X(63.20) = 465.79 AMPS
USE : 2 SETS OF 3-250mm²(L) + 1-80mm²(N) + 1-50mm(G) IN 2-110mmØ PVC PIPE
MAIN : 700AT, 800AF, 400V, 3P, 35KAIC MCCB

PANEL: "ULP2" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP2" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 2 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
2	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
3	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
4	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
5	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
6	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
7	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
9	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
10	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
11	STAGE LIGHTS	400/230	1500				6.52	20	100	1	25	MCCB	W3.5
12	FLOOD LIGHTS	400/230	1500				6.52	20	100	1	25	MCCB	W3.5
13	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmC
14	RAMP LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
15	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmC
16	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmC
17	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmC
18	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmC
				39.12	39.12	39.12							

I = 39.12 AMPS
USE : 114
MAIN : 80AT, 100AF, 400V, 3P, 35KAIC MCCB

NOTE :
ALL RESIDUAL CIRCUIT BREAKERS (RCBO) SHALL HAVE BUILT-IN OVERLOAD PROTECTION.

PANEL: "DP1" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "LV50-AC" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 1 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	UBJP1	400		209.93	209.93	209.93	290.26	700	800	3	70	MCCB	2Z250x
2	SPARE	400		200.00	200.00	200.00		400	400	3	50	MCCB	-
3	GDP1	400		325.87	323.65	323.65	35.60	350	400	3	50	MCCB	Y200
4	CMC	400		241.34	241.34	241.34		315	400	3	50	MCCB	Y150
				973.63	971.18	973.51	325.95						

I = (973.63 + 325.95) x 80%D.F. + 25X(63.20) = 1055.70 AMPS
USE : 4 SETS OF 4-250mm²(L+N) + 1-80mm²THHN(G) IN 4-110Ø PVC PIPE
MAIN : 1250AT, 1250AF, 400V, 3P, 85KAIC MCCB

PANEL: "LDP2-2" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP2" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 2 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	GFCI	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
2	GFCI	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
3	GFCI	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
4	HAND DRYER	400/230	1500		8.52			20	100	1	25	MCCB	W3.5
5	HAND DRYER	400/230	1500			8.52		20	100	1	25	MCCB	W3.5
6	HAND DRYER	400/230	1500			8.52		20	100	1	25	MCCB	W3.5
7	HAND DRYER	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	1-1.5HP EF-LG.4	400/230			4.60			20	100	1	25	MCCB	W3.5
9	0.5HP FAI-LG.2	400/230				4.60		20	100	1	25	MCCB	W3.5
10	0.7HP FCU LG1.3-LG1.4 & 0.25HP FCU LG1.1-LG1.2, LG1.5-LG1.6	400/230				21.20		32	100	1	25	MCCB	W3.5
11	0.7HP FCU LG2.1-LG2.4 & 0.25HP FCU LG2.5-LG2.6	400/230					21.80	32	100	1	25	MCCB	W3.5
12	GFCI	400/230	1500				6.52	20	100	1	25	MCCB	W3.5
13	0.3HP FAI-LG1.1-LG1.2	400/230		6.90				20	100	1	25	MCCB	W3.5
14	0.25HP FCU LG1.4, 0.25HP FCU LG1.1-LG1.3, LG2.1-LG2.3, LG2.5-LG2.6	400/230		19.15				32	100	1	25	MCCB	W3.5
15	1-1.5HP EF-LG.3	400/230				12.00		31	100	1	25	MCCB	W3.5
16	0.5HP FAI LG1.1	400/230	1500			4.60		20	100	1	25	MCCB	W3.5
17	EF	400/230	1500				6.52	20	100	1	25	MCCB	15mmE EMT
18	SPARE	400/230	1500				6.52	20	100	1	25	MCCB	15mmE EMT
19	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmE EMT
20	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmE EMT
21	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmE EMT
22	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmE EMT
23	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmE EMT
24	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmE EMT
				68.56	66.89	67.45							

I = 68.32 + 25X(10.00) = 71.06AMPS
USE : Y22
MAIN : 100AT, 100AF, 400V, 3P, 35KAIC MCCB

PANEL: "DNUP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP2" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 2 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
2	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
3	CONVENIENCE OUTLET	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
4	CONVENIENCE OUTLET	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
5	TREADMILL	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
6	TREADMILL	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
7	TREADMILL	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	TREADMILL	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
9	TREADMILL	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
10	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmE EMT
11	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmE EMT
12	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmE EMT
13	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmE EMT
14	SPARE	400/230	1500	-				20	100	1	25	MCCB	15mmE EMT
15	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmE EMT
16	SPARE	400/230			-			20	100	1	25	MCCB	15mmE EMT
17	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmE EMT
18	SPACE	400/230				-		20	100	1	25	MCCB	15mmE EMT
				32.60	32.60	32.60							

I = 32.60AMPS
USE : Y8.0
MAIN : 50AT, 100AF, 400V, 3P, 35KAIC MCCB

PANEL: "HLP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP2" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 2 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
2	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
3	CONVENIENCE OUTLET	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
4	CONVENIENCE OUTLET	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
5	HAND DRYER	400/230	1500				6.52	20	100	1	25	MCCB	W3.5
6	HAND DRYER	400/230	1500				6.52	20	100	1	25	MCCB	W3.5
7	HAND DRYER	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	1-0.75HP EF-LG.5	400/230			12.00			30	100	1	25	MCCB	W3.5
9	0.5HP FAI LGF.1-LGF.2	400/230				9.80		20	100	1	25	MCCB	W3.5
10	1-0.75HP EF-LG.6	400/230				10.00		30	100	1	25	MCCB	W3.5
11	HAND DRYER	400/230	1500				6.52	20	100	1	25	MCCB	W3.5
12	0.5HP FCU LGF.1-LGF.4	400/230				14.40		20	100	1	25	MCCB	W3.5
13	1-0.75HP EF-LG.7	400/230		6.90				20	100	1	25	MCCB	W3.5
14	1-0.75HP EF-LG.8	400/230		6.90				20	100	1	25	MCCB	W3.5
15	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
16	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmE EMT
17	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmE EMT
18	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmE EMT
				40.26	42.79	47.00							

I = 47.00 + 25X(3.90) = 48.73 AMPS
USE : 114
MAIN : 70AT, 100AF, 400V, 3P, 35KAIC MCCB

PANEL: "ULP2" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP2" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 2 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
2	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
3	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
4	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
5	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
6	LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
7	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
9	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
10	LIGHTS	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
11	STAGE LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
12	FLOOD LIGHTS	400/230	1500			6.52		20	100	1	25	MCCB	W3.5
13	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmE EMT
14	RAMP LIGHTS	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
15	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmE EMT
16	SPARE	400/230	1500		6.52			20	100	1	25	MCCB	15mmE EMT
17	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmE EMT
18	SPARE	400/230	1500			6.52		20	100	1	25	MCCB	15mmE EMT
				53.64	53.64	67.92							

I = 67.92+ 25X(14.40) = 71.52 AMPS
USE : 114
MAIN : 70AT, 100AF, 400V, 3P, 35KAIC MCCB

PANEL: "TCLP" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP2" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : UPPER GROUND LEVEL FOC ROOM — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	SPARE	400/230	1500	6.52				32	100	1	25	MCCB	15mmE EMT
2	FACP POWER PROVISION	400/230	1500	6.52				32	100	1	20	MCCB	W3.5
3	SPARE	400/230	1500		6.52			32	100	1	25	MCCB	15mmE EMT
4	PROVISION FOR MDF RACK	400/230	1500		6.52			32	100	1	25	MCCB	W3.5
5	NVR POWER PROVISION	400/230	1500			13.04		32	100	1	25	MCCB	W3.5
6	CONVENIENCE OUTLET	400/230	1500			8.52		32	100	1	25	MCCB	W3.5
7	PA/SOA POWER PROVISION	400/230	1500	6.52				20	100	1	25	MCCB	W3.5
8	SPARE	400/230	1500	6.52				20	100	1	25	MCCB	15mmE EMT
9	PROVISION FOR IDF RACK	400/230	1500		6.52			20	100	1	25	MCCB	W3.5
10	SPACE	400/230	1500					-	-	-	-	-	-
11	SPACE	400/230	1500					-	-	-	-	-	-
12	SPACE	400/230	1500					-	-	-	-	-	-
				26.08	19.56	19.56							

I = 26.08 AMPS
USE : 118.0
MAIN : 50AT, 100AF, 400V, 3P, 35KAIC MCCB

PANEL: "CCP2" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP2" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : LOWER GROUND LEVEL EE ROOM 2 — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE	AMPERE LOAD #AN	#BN	#CN	#ABC	PROTECTION AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LDP2-1	400		65.22	65.22	65.22		100	125	3	35	MCCB	Y22
2	LDP2-2	400		68.56	66.89	68.45		100	125	3	35	MCCB	Y22
3	ULP2	400		58.17	53.65	50.54		100	100	3	35	MCCB	Y14
4	LDJP2	400		53.17	52.17	52.17		80	100	3	35	MCCB	Y14
5	TKLP	400		44.81	45.89	47.00		80	100	3	35	MCCB	Y14
6	DTHLP	400		32.60	32.60	32.60		50	100	3	35	MCCB	Y8.0
7	FCLP	400		30.04	30.04	26.08		50	100	3	35	MCCB	Y8.0
8	SPARE			70.00	70.00	70.00		100	125	3	35	MCCB	53mmE EMT
				417.59	413.35	411.07							

I = 417.59 + 25X(17.00) = 421.84 AMPS
USE : 2 SETS OF 4-125mm²(L+N) + 1-32mm(G) IN 2-80mmØ IMC PIPE
MAIN : 500AT, 630AF, 400V, 3P, 50KAIC MCCB

PANEL: "ULP2" — MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY
FED FROM: "DP2" — POWDERED PAINT FINISH WITH MULTI-TERMINAL
LOCATION : PRESIDENTIAL SUITE (SECURITY ROOM) — BLOCK FOR SOLID GROUND AND NEUTRAL BUS

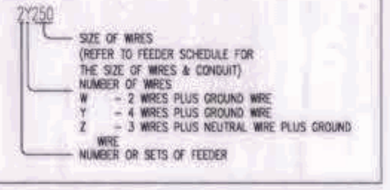
| CKT. NO. | LOAD DESCRIPTION | VOLT | VOLT AMPERE | AMPERE LOAD #AN

FEEDER SCHEDULE FOR COPPER THHN/THWN

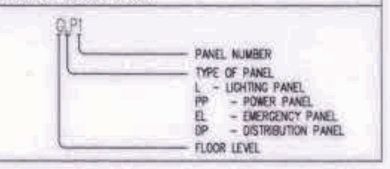
FEEDER	WIRE / CABLE	CONDUIT
W3.5	2-3.5mm² (L+N) & 1-3.5mm² (G)	15mmø
W5.5	2-5.5mm² (L+N) & 1-5.5mm² (G)	15mmø
W8.0	2-8.0mm² (L+N) & 1-5.5mm² (G)	20mmø
W14	2-14mm² (L+N) & 1-5.5mm² (G)	20mmø
W22	2-22mm² (L+N) & 1-8.0mm² (G)	25mmø
Y3.5	4-3.5mm² (L+N) & 1-3.5mm² (G)	15mmø
Y5.5	4-5.5mm² (L+N) & 1-5.5mm² (G)	20mmø
Y8.0	4-8.0mm² (L+N) & 1-5.5mm² (G)	25mmø
Y14	4-14mm² (L+N) & 1-5.5mm² (G)	32mmø
Y22	4-22mm² (L+N) & 1-8.0mm² (G)	32mmø
Y30	4-30mm² (L+N) & 1-8.0mm² (G)	40mmø
Y38	4-38mm² (L+N) & 1-14mm² (G)	50mmø
Y50	4-50mm² (L+N) & 1-14mm² (G)	50mmø
Y60	4-60mm² (L+N) & 1-14mm² (G)	50mmø
Y80	4-80mm² (L+N) & 1-14mm² (G)	65mmø
Y100	4-100mm² (L+N) & 1-22mm² (G)	65mmø
Y125	4-125mm² (L+N) & 1-22mm² (G)	80mmø
Y150	4-150mm² (L+N) & 1-30mm² (G)	80mmø
Y200	4-200mm² (L+N) & 1-30mm² (G)	90mmø
Y250	4-250mm² (L+N) & 1-30mm² (G)	100mmø
Z3.5	3-3.5mm² (L) & 1-3.5mm² (N) & 1-3.5mm² (G)	15mmø
Z5.5	3-5.5mm² (L) & 1-5.5mm² (N) & 1-5.5mm² (G)	20mmø
Z8.0	3-8.0mm² (L) & 1-5.5mm² (N) & 1-5.5mm² (G)	25mmø
Z14	3-14mm² (L) & 1-8.0mm² (N) & 1-8.0mm² (G)	25mmø
Z22	3-22mm² (L) & 1-8.0mm² (N) & 1-8.0mm² (G)	32mmø
Z30	3-30mm² (L) & 1-8.0mm² (N) & 1-8.0mm² (G)	40mmø
Z38	3-38mm² (L) & 1-14mm² (N) & 1-14mm² (G)	50mmø
Z50	3-50mm² (L) & 1-14mm² (N) & 1-14mm² (G)	50mmø
Z60	3-60mm² (L) & 1-14mm² (N) & 1-14mm² (G)	50mmø
Z80	3-80mm² (L) & 1-14mm² (N) & 1-14mm² (G)	65mmø
Z100	3-100mm² (L) & 1-22mm² (N) & 1-22mm² (G)	65mmø
Z125	3-125mm² (L) & 1-22mm² (N) & 1-22mm² (G)	80mmø
Z150	3-150mm² (L) & 1-30mm² (N) & 1-30mm² (G)	80mmø
Z200	3-200mm² (L) & 1-80mm² (N) & 1-30mm² (G)	90mmø
Z250	3-250mm² (L) & 1-80mm² (N) & 1-30mm² (G)	100mmø

NOTES:
1. FOR MULTIPLE SETS OF FEEDER, MINIMUM SIZE OF NEUTRAL WIRE WERE 50mm², UNLESS INDICATED.
2. CONDUIT SIZE INDICATES INNER DIAMETER.
3. EACH SET OF FEEDER OR PER CONTAINMENT WERE HAVE GROUND WIRE.

FEEDER WIRE AND CONDUIT DESIGNATION



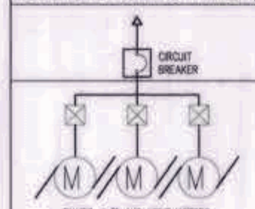
PANELBOARD DESIGNATION



NOTES FOR CABLE TRAY

1. ALL CABLE TRAY WERE LADDER TYPE, OPEN BOTTOM AND WITHOUT COVER.
2. USE BENDED RADIUS AND APPROPRIATE FITTINGS IN CONSIDERATION WITH MINIMUM BENDING RADIUS OF CABLE TO BE USED. ALL ELBOWS WERE CURLED. MITERED CORNERS WERE NOT BE ACCEPTABLE.
3. CABLE TRAY WIDTH OF 600mm AND ABOVE WERE MINIMUM THICKNESS OF 2.0mm, BELOW 600mm WERE HAVE MINIMUM THICKNESS OF 1.50mm RESPECTIVELY.
4. MAXIMUM SPACING BETWEEN LADDER RUNG WERE 225mm CENTER TO CENTER. RUNG WERE SLOTTED AND WELDED.
5. LOW VOLTAGE CABLE ARRANGEMENT WERE QUADRANGLE, BUNDLED TOGETHER WITH CABLE TIE AND LABELING.
6. MAINTAIN MINIMUM CODE SPACING BETWEEN EACH SET OF CABLES.
7. ALL CABLES WERE CABLE TRAY "CI" RATED WITH SIZE AS INDICATED.
8. ALL CABLE TRAY INCLUDING THE SUPPORTED CABLES WERE PROVIDED WITH TAGGING AND LABELING AT EVERY 10 METERS OF HORIZONTAL RUN AND EVERY FLOOR OF VERTICAL RISERS.
9. CABLE TRAY SUPPORT WERE PROVIDED EVERY 1.5m.
10. CABLE TRAYS WERE NOT BE TERMINATED ON TOP OF SWITCHGEAR TO PREVENT ENTRY OF FOREIGN OBJECT. PROVIDE EXPANSION BOX.
11. SEE RELATED NOTES AT SWITCHGEAR.

DELINEATION OF WORKS FOR PUMPS, A/C AND VENT MOTORS



1. TERMINATION OF WIRES FROM MOTOR CONTROLLER TO ENCLOSED CIRCUIT BREAKER WERE DONE BY MECHANICAL OR PLUMBING CONTRACTOR IN COORDINATION WITH ELECTRICAL CONTRACTOR.
2. ALL CONNECTION FROM MOTOR CONTROLLER TO ECB WERE DONE IN METALLIC CONDUIT OR LIQUID TIGHT METALLIC FLEXIBLE CONDUIT FOR SUPPLEMENTAL GROUNDING AND BONDING REQUIREMENT.
3. MECHANICAL AND PLUMBING CONTRACTOR TO SPECIFY AND CONFIRM THE FINAL RATING OF CIRCUIT BREAKER BASED ON MOTOR MANUFACTURER RECOMMENDATION PRIOR TO INSTALLATION TO COMPLY WITH MANUFACTURER REQUIREMENTS.
4. LOCATION OF ENCLOSED CIRCUIT BREAKER WERE BESIDE THE PUMPS OR MOTORS BEING PROTECTED. REFER TO MECHANICAL, SANITARY AND FIRE PROTECTION PLAN FOR THE RECOMMENDED LOCATION.
5. ALL CONDUIT CONNECTION TO OUTDOOR TYPE OR NEMA 3R/4X PANEL OR ECB WERE BOTTOM FEED AND SHALL BE PROVIDED WITH RUBBER GASKET AND SEALANT TO COMPLY TO NEMA 4X REQUIREMENTS.
6. REQUIRED INDIVIDUAL DISCONNECT FOR SINGLE PACKAGE EQUIPMENT WITH GROUP OF MOTORS WERE SUPPLY AND INSTALLED BY EQUIPMENT SUPPLIER. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE DISCONNECT ONLY.

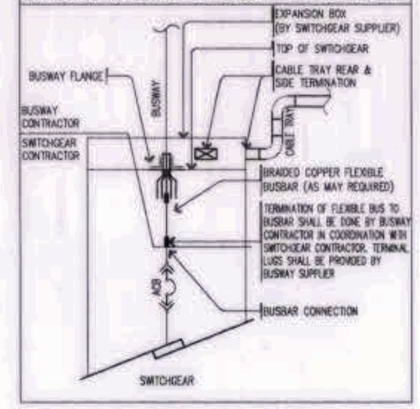
NOTES FOR ELEVATOR AND SCOREBOARD

1. ELEVATOR/LED SCREEN SUPPLIER TO ADAPT TO BUILDING SYSTEM VOLTAGE.
2. EQUIPMENT LIKE TVSS, AVR, HARMONIC FILTER ETC NEEDED FOR EQUIPMENT OPERATION WERE PROVIDED BY THE SUPPLIER/CONTRACTOR.

NOTES FOR SWITCHGEARS

1. PROVIDE LAMP INDICATORS (GREEN - "ON", YELLOW - "TRIP", RED - "OFF") AT ALL AIR CIRCUIT BREAKERS.
2. PROVIDE TWO SETS OF LAMP INDICATORS FOR AUTOMATIC / MANUAL TRANSFER SWITCHES (NORMAL AND EMERGENCY).
3. PROVIDE PROGRAMMABLE DIGITAL POWER METERING (PDM) AT MAIN CIRCUIT BREAKER AND ALL BRANCHES.
4. ALL CIRCUIT BREAKERS AT SWITCHGEAR WERE AIR CIRCUIT BREAKER, DRAW-OUT TYPE AND SHALL HAVE A MINIMUM INTERRUPTING CAPACITY OF 65 KILO AMPERE UNLESS OTHERWISE SPECIFIED.
5. ALL DRAW-OUT TYPE CIRCUIT BREAKERS WITH 1000AT RATING AND ABOVE SHALL HAVE LSIG PROTECTION FUNCTION WITH DISPLAY PANEL. PROVIDE EXTERNAL PT/CT TO ACHIEVE LSIG FUNCTION AS MAY REQUIRED.
6. ALL LVSG WERE PROVIDED WITH ACTIVE TRACKING NETWORK TYPE TVSS CONNECTED ACROSS THE MAIN CIRCUIT BREAKER.
7. ALL DEADFRONT COVERS AND REAR DOORS OF SWITCHGEAR WERE SWING-TYPE COMPLETE WITH HEAVY DUTY HINGES, HANDLE AND OTHER ACCESSORIES.
8. ALL TERMINATIONS OF CABLE OR BUSWAY AT SWITCHGEAR WERE DONE AT REAR PORTION OF SWITCHGEAR.
9. LOW VOLTAGE AND SYNCHRONIZING SWITCHGEAR SUPPLIER TO COORDINATE WITH BUSWAY SUPPLIER FOR INTERFACING AND PHASE CONNECTION REQUIREMENT. PROVIDE BUSBAR UP TO BUSWAY.
10. ALL BUSBAR AT SWITCHGEAR WERE TIN PLATED COPPER AND PROVIDED WITH COLOR CODED INSULATION. PROVIDE EXTRA HOLES FOR FUTURE TAPPING.
11. ALL REAR PORTION OF SWITCHGEAR WERE PROVIDED WITH THERMOPLASTIC AS DEAD FRONT COVER ASIDE FROM SWING TYPE LOCKABLE DOOR.
12. ALL TERMINAL LUGS TO BE USED WERE LISTED CRIMP TYPE LONG BARREL WITH TWO(2) HOLES.
13. UPPER AND LOWER PORTION OF ALL SIDES OF SWITCHGEAR WERE PROVIDED WITH LOUVERS, AND FILTER TO AVOID ENTRY OF DUST.
14. WHOLE ASSEMBLY OF LVSG/SYNCHRONIZING SWITCHGEAR WERE PROVIDED WITH EXPANSION BOX.
15. EXPANSION BOX WERE INSTALLED ON TOP OF SWITCHGEAR AS CABLE MANAGEMENT AND SUPPORT FOR CABLE TRAY SIDE ENTRY.
16. EXPANSION BOX WERE A MINIMUM HEIGHT OF 300mm WITH SAME DEPTH, LENGTH, COLOR AND FINISH AS SWITCHGEAR.
17. ALL TERMINAL LUGS TO BE USED FOR BUSWAY TERMINATION WERE USED DUAL AL/CU RATED LONG BARREL CRIMP TYPE LUGS.

DELINEATION OF WORKS FOR BUSWAY AND SWITCHGEAR



NOTES FOR EXPANSION BOX FOR TRANSFORMER

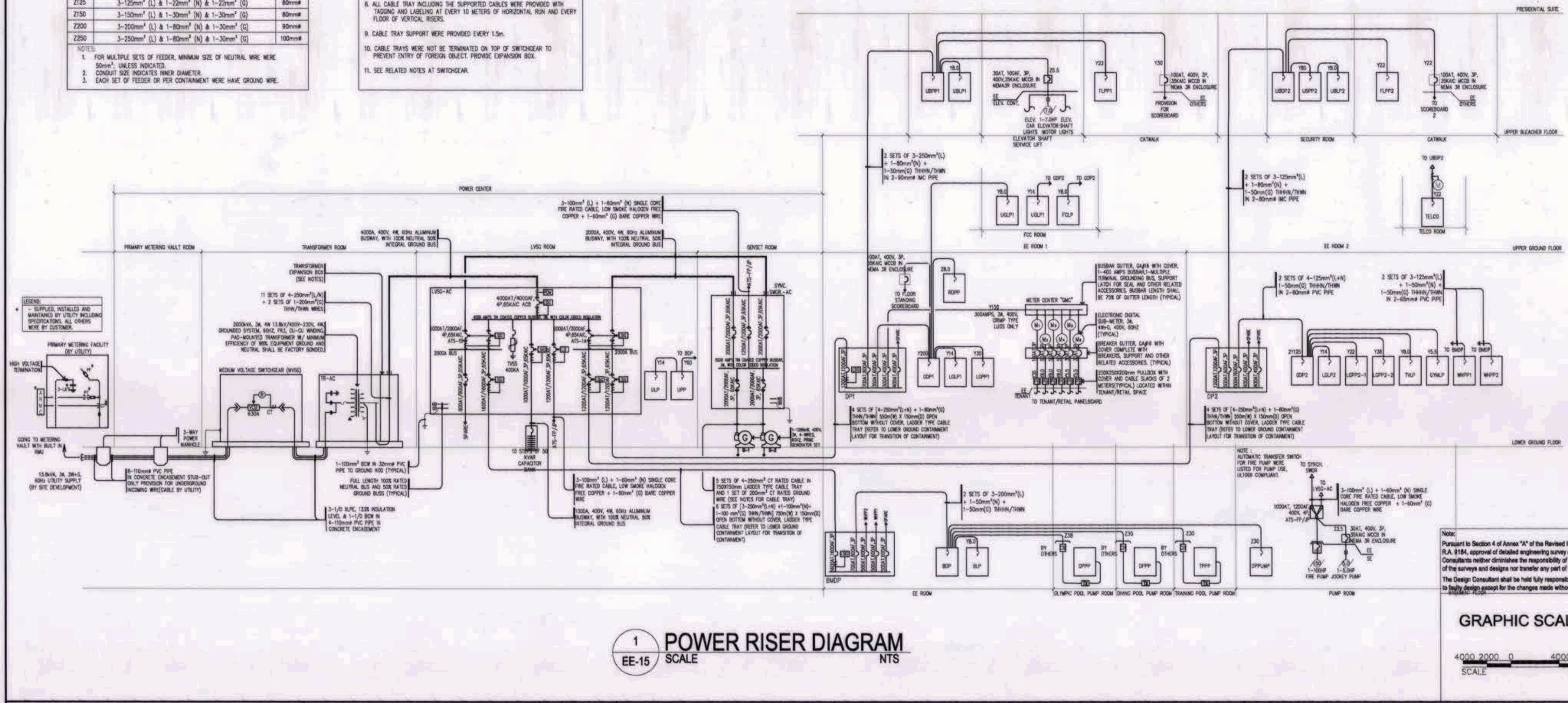
1. EXPANSION BOX WERE SAME DEPTH, HEIGHT, COLOR AND FINISH AS THE TRANSFORMER.
2. FRONT AND REAR OF EXPANSION BOX WERE PROVIDED WITH LOCKABLE SWING TYPE DOOR COVER.
3. THE EXPANSION BOX WERE FIXED AND MOUNTED TO TRANSFORMER AND CONCRETE PAD. COORDINATE WITH TRANSFORMER SUPPLIER.
4. THE MOUNTING OF BUSWAY WERE ELEVATED TO AVOID CONFLICT WITH PIPES AND CONDUIT.
5. CABLE TERMINATION FROM TRANSFORMER TO BUSWAY WERE BOTTOM FED THROUGH EXPANSION BOX. PROVIDE CABLE SUPPORT, TIE, ETC.

NOTES FOR BUSWAY

1. ALL BUSWAY WERE IP54 (MIN.).
2. WALL BRACKET WERE PROVIDED TO ALL BUSWAY RISER THAT RUN THROUGH HIGH FLOOR LEVELS.
3. BUSWAY SUPPLIER/CONTRACTOR WERE COORDINATE AND COMPLY WITH SWITCHGEAR SUPPLIER FOR PHASE SEQUENCE ARRANGEMENT CONNECTION REQUIREMENT.
4. BUSWAY FLANGE WERE PROPERLY ATTACHED TO SWITCHGEAR OR TRANSFORMER AND SHALL BE MOUNTED ON TOP OF CUBICLE INTENDED FOR BUSWAY. PROVIDE BONDING WIRE.
5. BUSWAY CONNECTION TO SWITCHGEAR WERE SOLID BUSBAR. PROVIDE BRAIDED FLEXIBLE BUS AS REQUIRED.
6. ALL BUSWAY WERE PROVIDED WITH TAGGING AND LABELING TO EVERY THREE (3) LENGTH OF HORIZONTAL RUN AND EVERY FLOOR OF VERTICAL RISER.
7. BUSWAY SUPPLIER/CONTRACTOR TO CONDUCT ACTUAL SITE MEASUREMENT AND COORDINATE WITH EE AND OTHER CONTRACTORS AND SECURE APPROVED SHOP DRAWING PRIOR TO BUSWAY FABRICATION.
8. APPROVED FIRE SEALANT WERE PROVIDED TO ALL FLOOR AND WALL PENETRATIONS.
9. COORDINATE WITH OTHER TRADE CONTRACTOR TO AVOID CONFLICT ON LAYOUT.

NOTES FOR METER CENTER

1. BREAKER AND BUSBAR GUTTERS WERE HAVE HEAVY DUTY HINGE TYPE COVER AND SUPPORT.
2. USE MOLDED CASE CIRCUIT BREAKER FOR BREAKER GUTTER AND WERE HAVE SWING TYPE DEAD FRONT COVER WITH TAGGING AND LABELING.
3. BREAKER AND BUSBAR GUTTER SHALL BE OF THE SAME LENGTH, WIDTH AND DEPTH.
4. LENGTH OF BUSBAR SHALL BE 75% OF GUTTER LENGTH. LAYERED BUSBAR SHALL BE TIN PLATED COPPER WITH COLOR CODED INSULATION. PROVIDE EXTRA HOLES WITH LUGS FOR FUTURE TERMINATION.
5. FEEDER AND CONDUIT SIZE FROM BREAKER TO BUSBAR GUTTER WERE SAME AS LOAD BEING SERVED. REFER TO METER CENTER SCHEDULE.



Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials. The Design Consultant shall be held fully responsible for the failure of the facilities/structure due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 2000 0 4000 10000
SCALE NTS

N

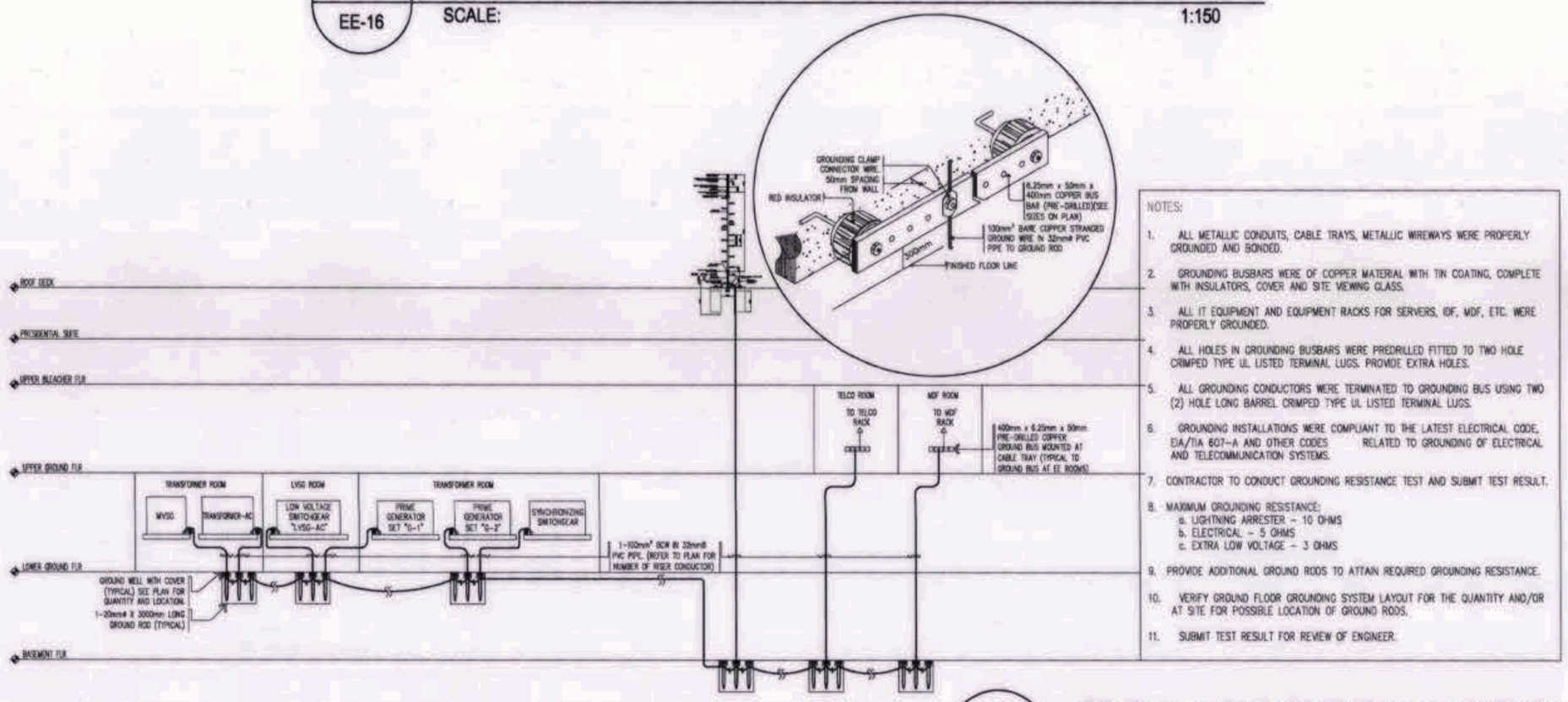
1 / EE-15 POWER RISER DIAGRAM
SCALE NTS

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	POWER RISER DIAGRAM	EE-15



1 EE-16 ROOF PLAN LIGHTNING ARRESTER SYSTEM LAYOUT

SCALE: 1:150

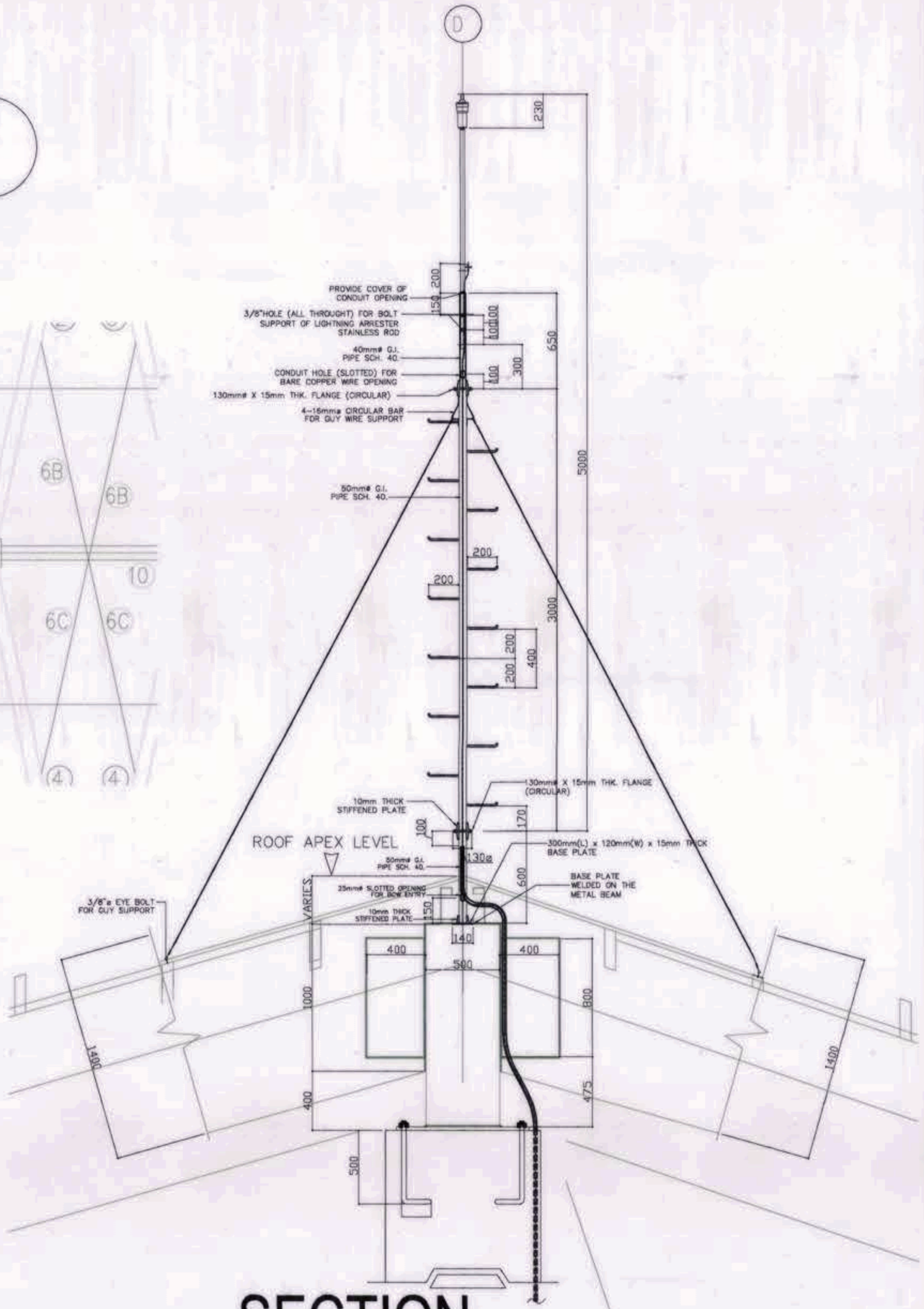


NOTES:

1. ALL METALLIC CONDUITS, CABLE TRAYS, METALLIC WIREWAYS WERE PROPERLY GROUNDED AND BONDED.
2. GROUNDING BUSBARS WERE OF COPPER MATERIAL WITH TIN COATING, COMPLETE WITH INSULATORS, COVER AND SITE VIEWING GLASS.
3. ALL IT EQUIPMENT AND EQUIPMENT RACKS FOR SERVERS, IDF, MDF, ETC. WERE PROPERLY GROUNDED.
4. ALL HOLES IN GROUNDING BUSBARS WERE PREDRILLED FITTED TO TWO HOLE CRIMPED TYPE UL LISTED TERMINAL LUGS. PROVIDE EXTRA HOLES.
5. ALL GROUNDING CONDUCTORS WERE TERMINATED TO GROUNDING BUS USING TWO (2) HOLE LONG BARREL CRIMPED TYPE UL LISTED TERMINAL LUGS.
6. GROUNDING INSTALLATIONS WERE COMPLIANT TO THE LATEST ELECTRICAL CODE, EIA/TIA 607-A AND OTHER CODES RELATED TO GROUNDING OF ELECTRICAL AND TELECOMMUNICATION SYSTEMS.
7. CONTRACTOR TO CONDUCT GROUNDING RESISTANCE TEST AND SUBMIT TEST RESULT.
8. MAXIMUM GROUNDING RESISTANCE:
   a. LIGHTNING ARRESTER – 10 OHMS
   b. ELECTRICAL – 5 OHMS
   c. EXTRA LOW VOLTAGE – 3 OHMS
9. PROVIDE ADDITIONAL GROUND RODS TO ATTAIN REQUIRED GROUNDING RESISTANCE.
10. VERIFY GROUND FLOOR GROUNDING SYSTEM LAYOUT FOR THE QUANTITY AND/OR AT SITE FOR POSSIBLE LOCATION OF GROUND RODS.
11. SUBMIT TEST RESULT FOR REVIEW OF ENGINEER.

2 EE-16 GROUNDING SYSTEM LAYOUT

SCALE: NTS



SECTION

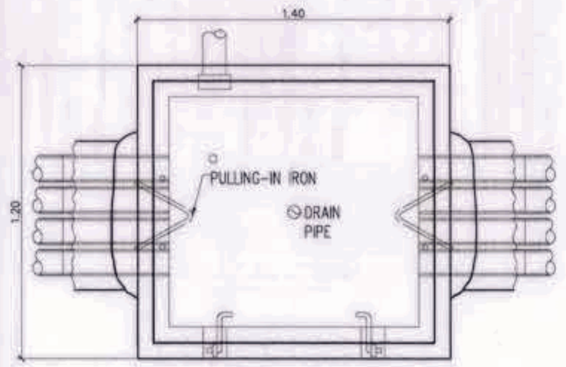
Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

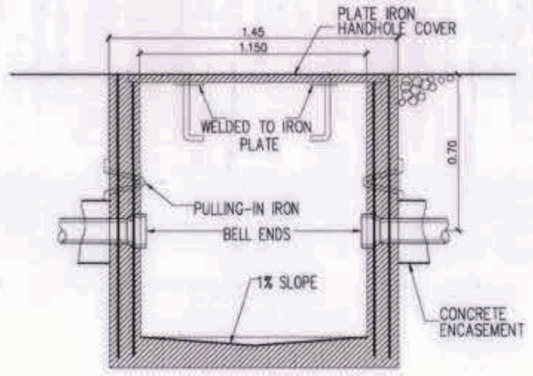
4000 2000 0 4000 10000
SCALE 1:150

N

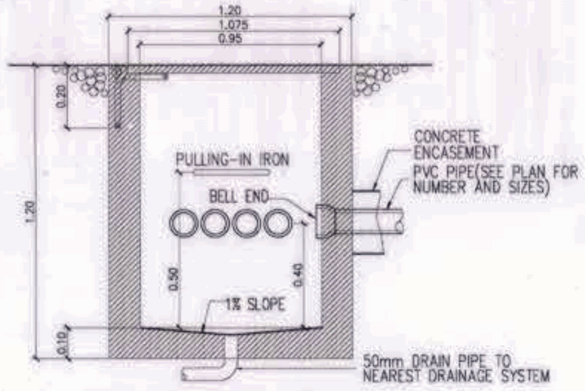
OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	ROOF PLAN LIGHTNING ARRESTER SYSTEM LAYOUT	EE-16



PLAN TOP VIEW

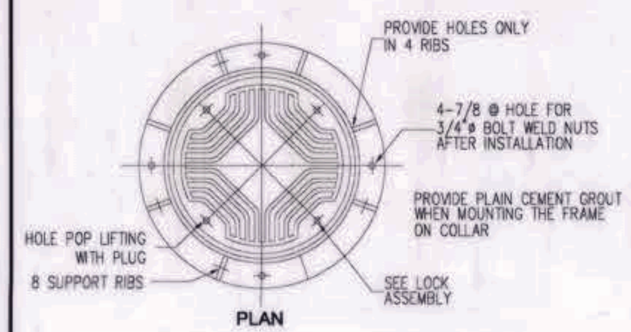


LONGITUDINAL SECTION

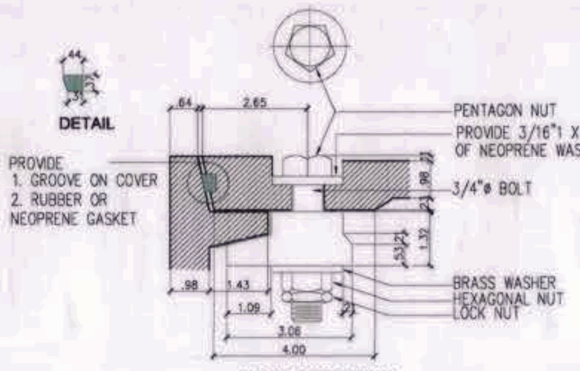


CROSS SECTION

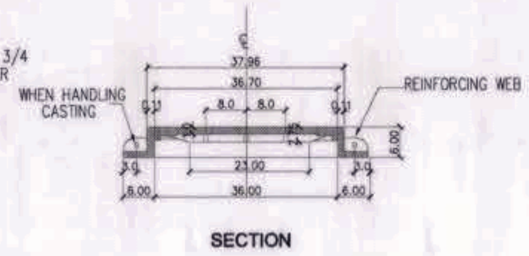
1 / EE-17 TELEPHONE MANHOLE DETAIL



PLAN



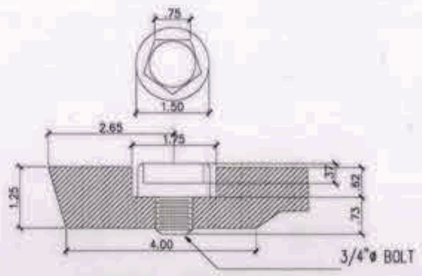
LOCK ASSEMBLY



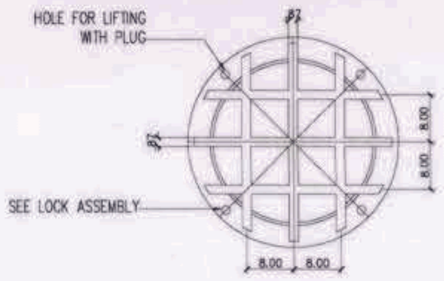
SECTION

NOTES:
1. ALL DETAILS ARE SUBJECT FOR FINAL APPROVAL OF LOCAL TELEPHONE COMPANY
2. CONTRACTOR SHALL COORDINATE WITH PLDT AND PREPARE NECESSARY SHOP DRAWING FOR THEIR APPROVAL

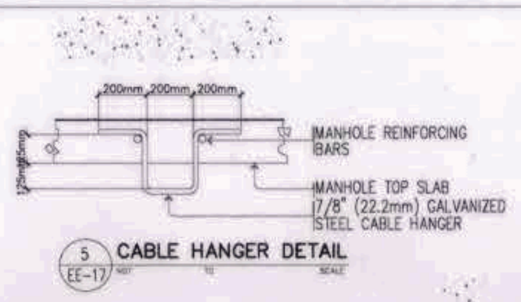
2 / EE-17 TELEPHONE MANHOLE FRAME AND COVER FABRICATION DETAIL



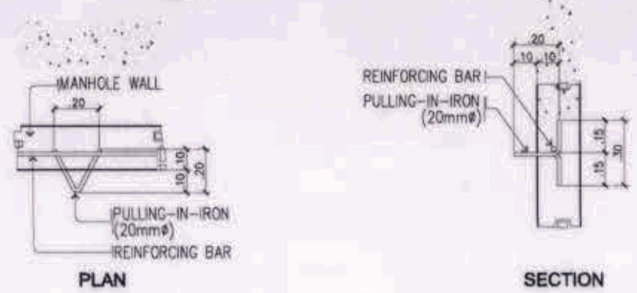
HOLE FOR LIFTING WITH PLUG



3 / EE-17 TELEPHONE BOTTOM RIBS DETAIL



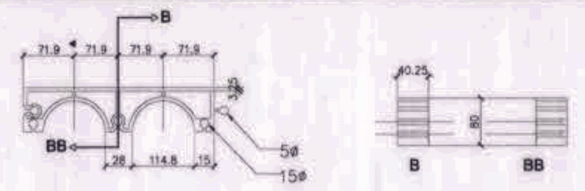
5 / EE-17 CABLE HANGER DETAIL



PLAN

SECTION

4 / EE-17 TELEPHONE PULLING-IN-IRON DETAIL

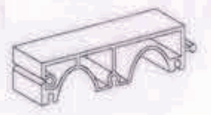


FRONT VIEW

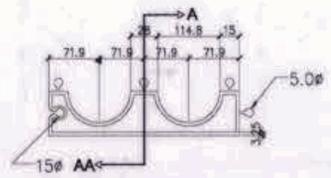
SIDE VIEW



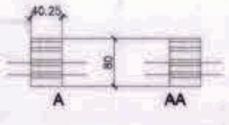
BOTTOM VIEW



ISOMETRIC VIEW



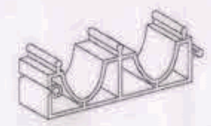
FRONT VIEW



SIDE VIEW

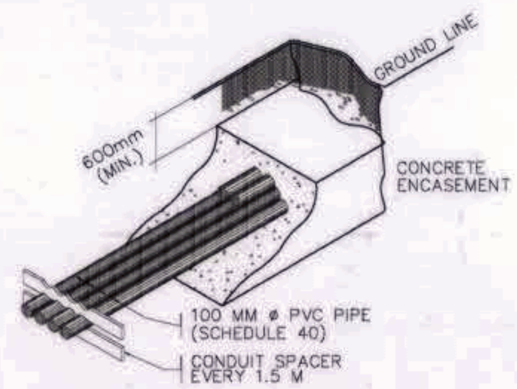


TOP VIEW



ISOMETRIC VIEW

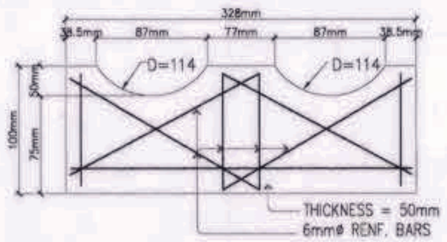
5 / EE-17 PVC DUCT SPACER DETAIL



ISOMETRIC VIEW

NOTE:
1. SEE PLAN FOR NUMBER OF PIPES USED AND SIZE OF CONCRETE ENCASEMENT
2. SEE CONCRETE SEPARATOR OR PVC DUCT SPACER DETAIL

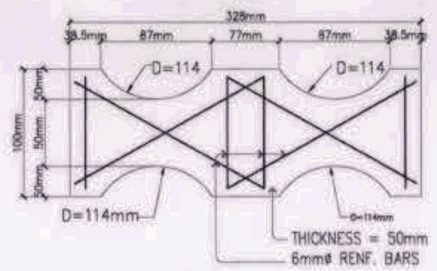
7 / EE-17 CONCRETE ENCASEMENT



TWO (2) GROOVES

NOTE:
COMPRESSIVE STRENGTH=2000 PSI AFTER 28 DAYS FOR ALL CONCRETE SEPARATOR

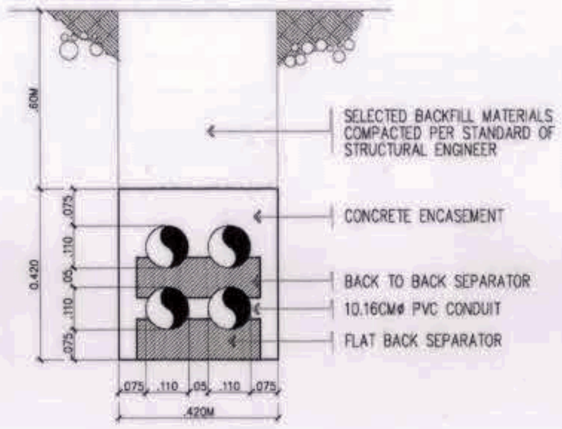
8 / EE-17 TYPICAL CONCRETE SEPARATOR FLAT BACK DETAIL



TWO (2) GROOVES

NOTE:
COMPRESSIVE STRENGTH=2000 PSI AFTER 28 DAYS FOR ALL CONCRETE SEPARATOR

9 / EE-17 TYPICAL CONCRETE SEPARATOR BACK TO BACK DETAIL



10 / EE-17 CONDUIT RUN CONFIGURATION

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

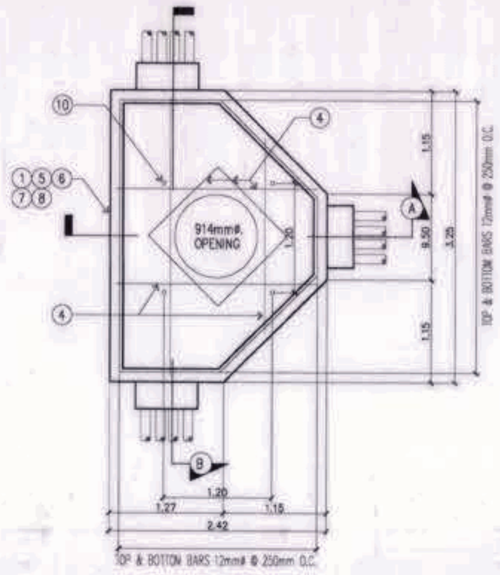
4000 10000
1:200

N

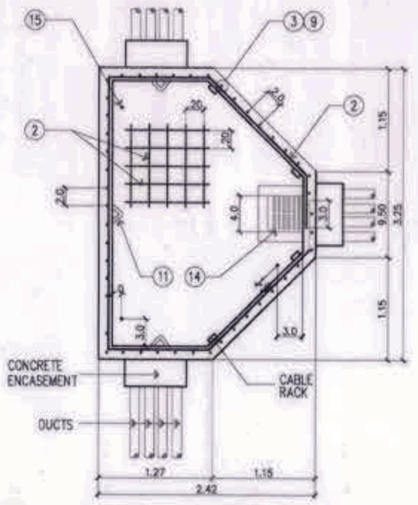
A / EE-17 MISCELLANEOUS DETAIL PART-1

SCALE: NTS

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON PRESIDENT / PATRICK NICHOLAS P. DAVID PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	MISCELLANEOUS DETAIL PART-1	EE-17



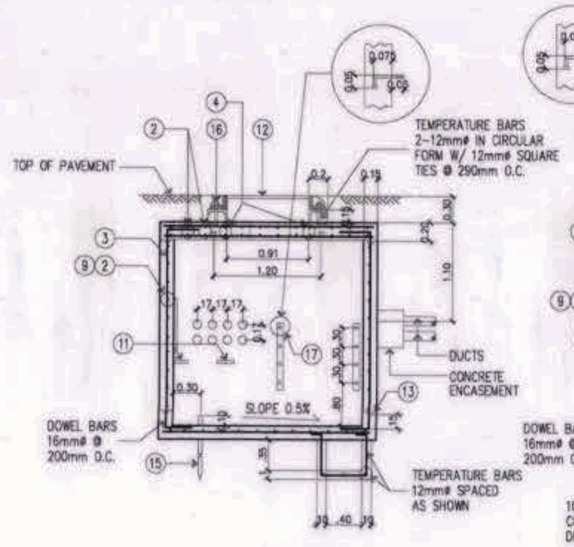
PLAN



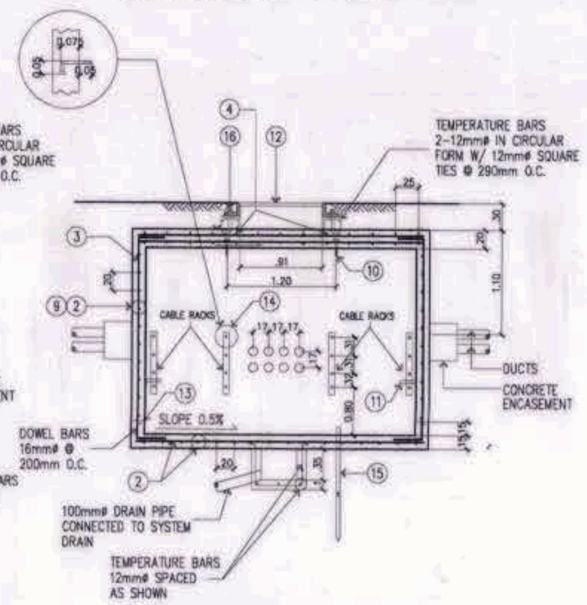
SECTIONAL PLAN

NOTES:

1. PRIMARY MANHOLE SHALL BE USED PRIMARILY ALONG ROADWAYS.
2. ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE F'c SHALL BE 17.2 MPa (2500 PSI).
3. REINFORCING BARS SHALL CONFORM TO PS GRADE 275 F'Y = 275 MPa (40,000PSI).
4. THE MINIMUM SOIL BEARING CAPACITY SHALL BE 96 KN/SQ. M. (2000 PSF).
5. ALL LAP SPLICES IN REINFORCING BARS SHALL BE TO A MINIMUM OF 300MM.
6. SEAL WITH WATER STOP SEALER ALL CONSTRUCTION JOINTS PRIOR TO NEXT POURING.
7. FLOOR SLAB SHALL SLOPE GRADUALLY TOWARDS DRAIN PIT TO PROVIDE POSITIVE DRAIN. CONNECT DRAIN PIPE TO DRAINAGE SYSTEM.
8. PULLING IN IRON SHALL BE INSTALLED ON THE WALL OPPOSITE THE CONDUIT ENTRANCE AND IN LINE WITH THE DUCTS AND INSTALLED NOT HIGHER THAN THE CENTERLINES OF THE LOWER MOST DUCTS AT THE OPPOSITE CONDUIT ENTRANCE.
9. ALL EDGES OF SLAB OPENING SHALL BE REINFORCE ACCORDINGLY.
10. CLEAR CONDUIT ENTRANCE FROM REINFORCED BARS. BEND OR LOOP AROUND GROUP OF DUCTS AS FIELD CONDITIONS MAY REQUIRE.
11. PVC ELECTRICAL DUCTS USED IN THE CONSTRUCTION OF PRIMARY CONDUIT SYSTEM MAY BE USED AS DRAIN PIPE.
12. WHERE DRAIN PIPE LEADS DIRECTLY INTO SEWERS, TRAP SHOULD BE USED TO KEEP SEWER GAS OUT OF THE PULLING BOX.
13. ALL BACKFILL UNDER FLOOR SLAB SHALL BE FIRMLY TAMPED BEFORE POURING.



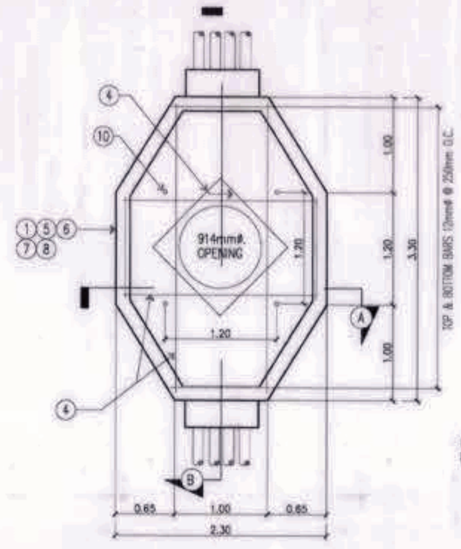
SECTION THRU A



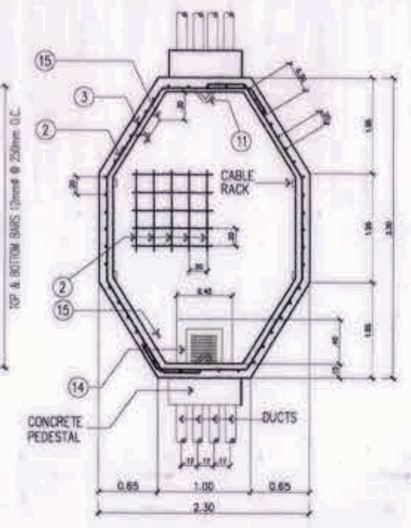
SECTION THRU B

FOR PRIMARY MANHOLE , 3-WAY	
ITEM	DESCRIPTION
1	CONCRETE
2	REINFORCING BARS, 12mmø X 6000mm LONG
3	REINFORCING BARS, 16mmø X 6000mm LONG
4	REINFORCING BARS, 20mmø X 6000mm LONG
5	FORM LUMBER, 25 X 300 X 3660 (1" X 12" X 12')
6	FORM LUMBER, 50 X 150 X 4270 (2" X 6" X 14')
7	COMMON NAIL, 75mm LONG
8	COMMON NAIL, 40mm LONG
9	TIE WIRE, GA. NO. 16 G.I.
10	MACHINE BOLT, 16mmø X 150mm LONG
11	PULLING-IN IRON
12	MANHOLE FRAME & COVER. DWG. UGP-MH-FC
13	WATER STOP SEALER, POLYVINYL PLASTIC, 100 WIDE
14	DRAIN PIT COVER GRATING, DWG. NO. E-620-1
15	GROUND ROD, 16mmø X 2400mm LONG
16	ANCHOR BOLT, 19mmø X 200mm LONG
17	MACHINE BOLT, 12mmø X 175mm LONG

1 EE-18 POWER PRIMARY MANHOLE , 3-WAY
NOT TO SCALE



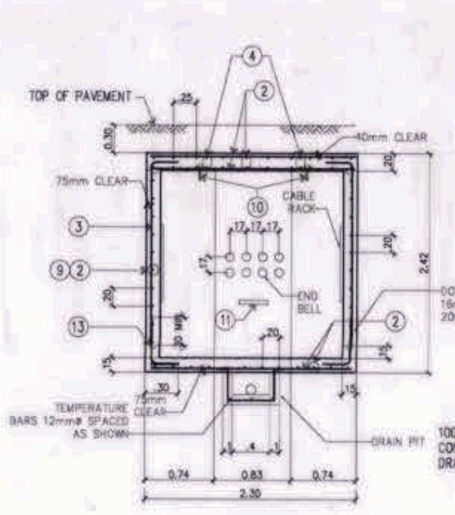
PLAN



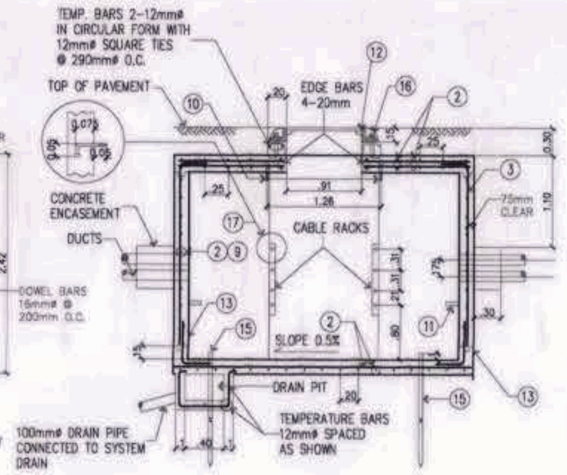
SECTIONAL PLAN

NOTES:

1. PRIMARY MANHOLE SHALL BE USED PRIMARILY ALONG ROADWAYS.
2. ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE F'c SHALL BE 17.2 MPa (2500 PSI).
3. REINFORCING BARS SHALL CONFORM TO PS GRADE 275 F'Y = 275 MPa (40,000PSI).
4. THE MINIMUM SOIL BEARING CAPACITY SHALL BE 96 KN/SQ. M. (2000 PSF).
5. ALL LAP SPLICES IN REINFORCING BARS SHALL BE TO A MINIMUM OF 300MM.
6. SEAL WITH WATER STOP SEALER ALL CONSTRUCTION JOINTS PRIOR TO NEXT POURING.
7. FLOOR SLAB SHALL SLOPE GRADUALLY TOWARDS DRAIN PIT TO PROVIDE POSITIVE DRAIN. CONNECT DRAIN PIPE TO DRAINAGE SYSTEM.
8. PULLING IN IRON SHALL BE INSTALLED ON THE WALL OPPOSITE THE CONDUIT ENTRANCE AND IN LINE WITH THE DUCTS AND INSTALLED NOT HIGHER THAN THE CENTERLINES OF THE LOWER MOST DUCTS AT THE OPPOSITE CONDUIT ENTRANCE.
9. ALL EDGES OF SLAB OPENING SHALL BE REINFORCE ACCORDINGLY.
10. CLEAR CONDUIT ENTRANCE FROM REINFORCED BARS. BEND OR LOOP AROUND GROUP OF DUCTS AS FIELD CONDITIONS MAY REQUIRE.
11. PVC ELECTRICAL DUCTS USED IN THE CONSTRUCTION OF PRIMARY CONDUIT SYSTEM MAY BE USED AS DRAIN PIPE.
12. WHERE DRAIN PIPE LEADS DIRECTLY INTO SEWERS, TRAP SHOULD BE USED TO KEEP SEWER GAS OUT OF THE PULLING BOX.
13. ALL BACKFILL UNDER FLOOR SLAB SHALL BE FIRMLY TAMPED BEFORE POURING.



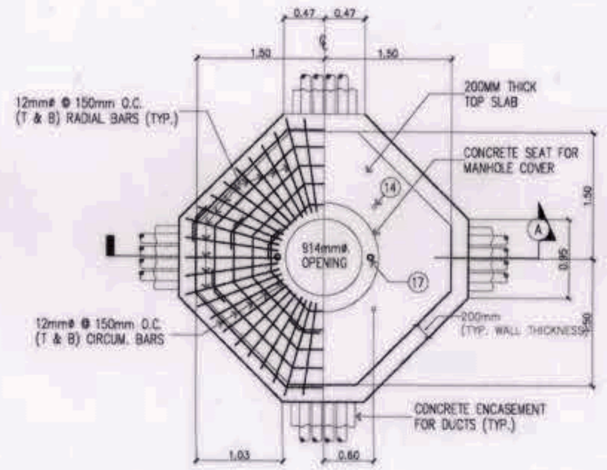
SECTION THRU A



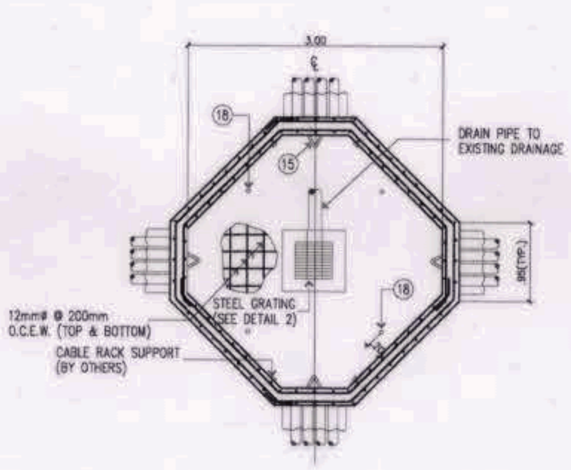
SECTION THRU B

FOR PRIMARY MANHOLE , 2-WAY	
ITEM	DESCRIPTION
1	CONCRETE
2	REINFORCING BARS, 12mmø X 6000mm LONG
3	REINFORCING BARS, 16mmø X 6000mm LONG
4	REINFORCING BARS, 20mmø X 6000mm LONG
5	FORM LUMBER, 25 X 300 X 4880 (1" X 12" X 16)
6	FORM LUMBER, 50 X 150 X 4880 (2" X 6" X 16')
7	COMMON NAIL, 75mm LONG
8	COMMON NAIL, 40mm LONG
9	TIE WIRE, GA. NO. 16 G.I.
10	MACHINE BOLT, 16mmø X 150mm LONG
11	PULLING-IN IRON
12	MANHOLE FRAME & COVER. DWG. UGP-MH-FC
13	WATER STOP SEALER, POLYVINYL PLASTIC, 100 WIDE
14	DRAIN PIT COVER GRATING, DWG. NO. E-620-1
15	GROUND ROD, 20mmø X 3000mm LONG
16	ANCHOR BOLT, 19mmø X 200mm LONG
17	MACHINE BOLT, 12mmø X 175mm LONG

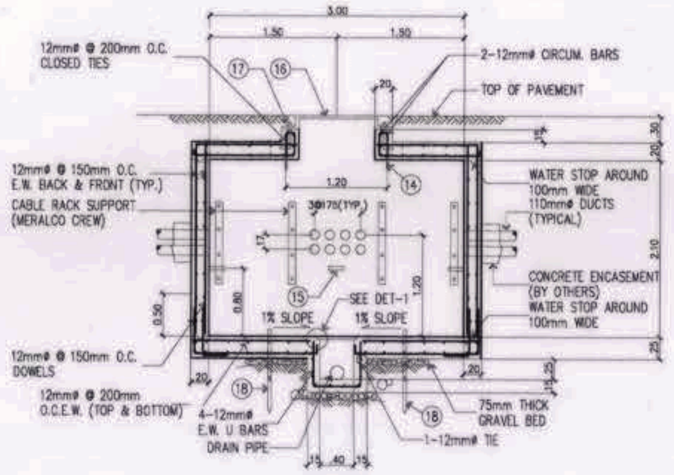
2 EE-18 POWER PRIMARY MANHOLE , 2-WAY
NOT TO SCALE



PLAN

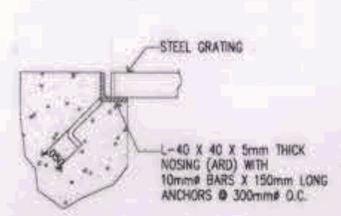


SECTIONAL PLAN

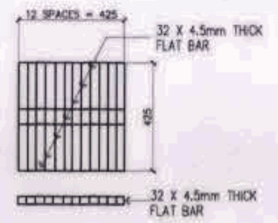


SECTION THRU A

3 EE-18 POWER PRIMARY MANHOLE , 4-WAY
NOT TO SCALE



DETAIL 1



DETAIL 2

NOTES:

1. PRIMARY MANHOLE SHALL BE USED PRIMARILY ALONG ROADWAYS.
2. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE, F'c = 211 KG/CM (4000 psi)
3. REINFORCING BARS SHALL CONFORM TO PS GRADE 275 F'Y = 2812 KG/CM (4,000PSI).
4. SOIL BEARING CAPACITY SHALL BE 10000 KSM (2000 PSF).
5. LAP SPLICES IN REINF. BARS SHALL BE TO A MINIMUM OF 40 BAR DIAMETER
6. BOTTOM SLAB SHALL SLOPE TOWARDS DRAIN PIT, CONNECT DRAIN PIPE TO EXISTING DRAINAGE SYSTEM, IF APPLICABLE.
7. PVC ELECTRICAL DUCTS USED IN PRIMARY CONDUIT SYSTEM MAY BE USED AS DRAIN PIPE
8. WHERE DRAIN PIPE LEADS DIRECTLY INTO SEWERS, TRAP SHOULD BE USED TO KEEP SEWER GAS OUT OF THE PULLING BOX
9. CLEAR CONDUIT ENTRANCE FROM REINFORCED BARS. BEND OR LOOP AROUND GROUP OF DUCTS AS FIELD CONDITIONS MAY REQUIRE.

FOR PRIMARY MANHOLE , 4-WAY	
ITEM	DESCRIPTION
1	EXCAVATION
2	GRAVEL FILL
3	CONCRETE (3000 psi)
4	REBARS (PS GRADE 275) 12mmø X 6000m. LONG
5	TIE WIRE, GA. NO. 16 G.I.
6	FORM LUMBER (ASSORTED)
7	PLYWOOD, 4' X 8' X 1/2" THICK
8	COMMON NAILS (ASSORTED)
9	FORM OIL
10	FLAT STEEL BAR, 32 X 4.5 mm THICK X 425mm LONG
11	ANGLE 40mm X 40mm X 5mm LONG
12	PLAIN ROD, 10mm X 150mm LONG
13	WATER STOP SEALER, POLYVINYL PLASTIC, 100mm WIDE
14	MACHINE BOLT WITH HEX NUT AND WASHER, 16mmø X 150mm LONG
15	PULLING-IN IRON
16	MANHOLE FRAME AND COVER
17	ANCHOR BOLT WITH HEX NUT AND WASHER, 19mmø X 200mm LONG
18	GROUNDING ROD, 20mmø X 3000mm LONG

Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

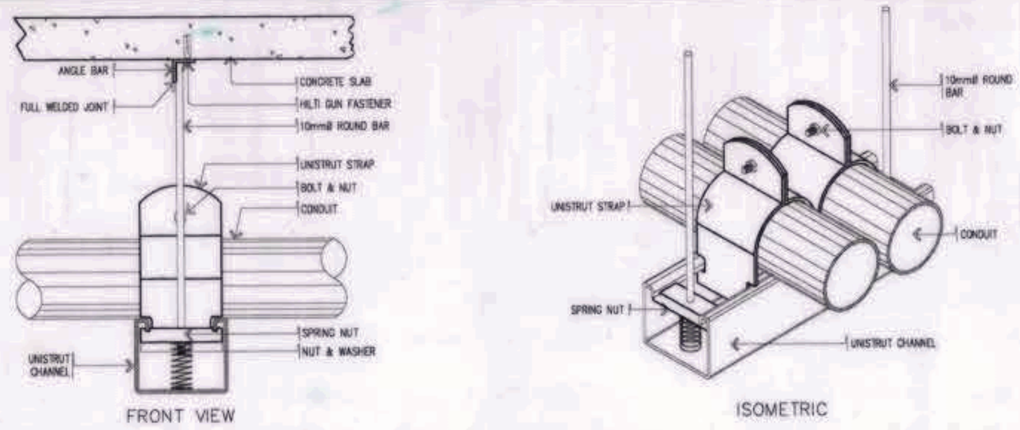
The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

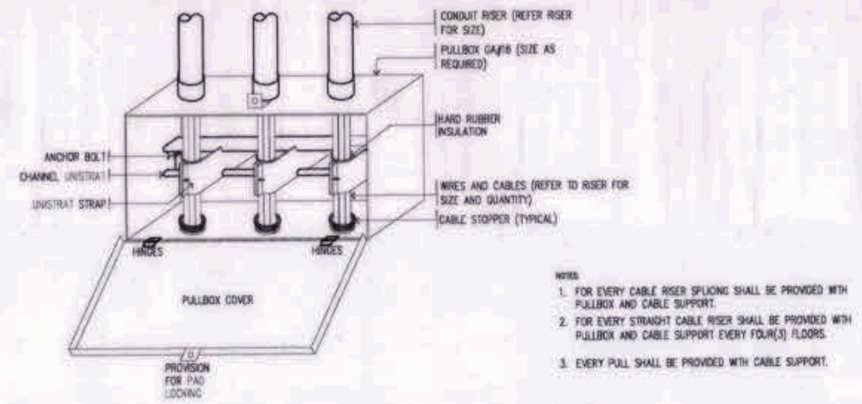
4000 10000
1:200

A EE-18 MISCELLANEOUS DETAIL PART-2
SCALE: NTS

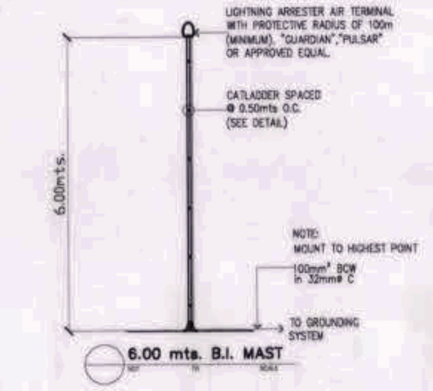
OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADROZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A AQUATIC CENTER NEW CLARK CITY, CAPAS, TARLAC	MISCELLANEOUS DETAIL PART-2	EE-18

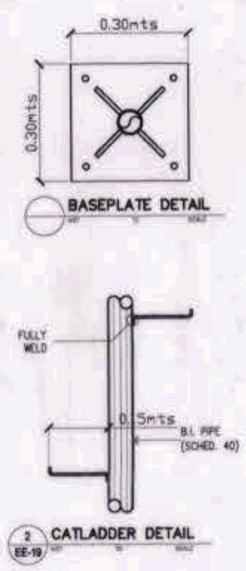


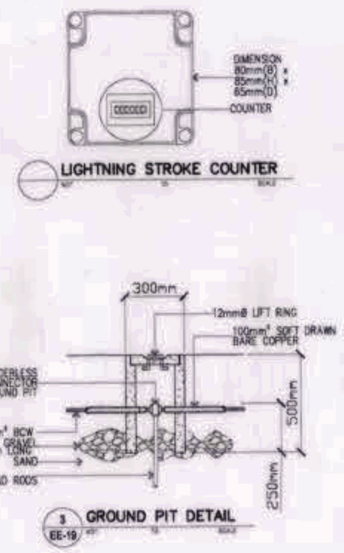
CONDUIT SUPPORT DETAIL

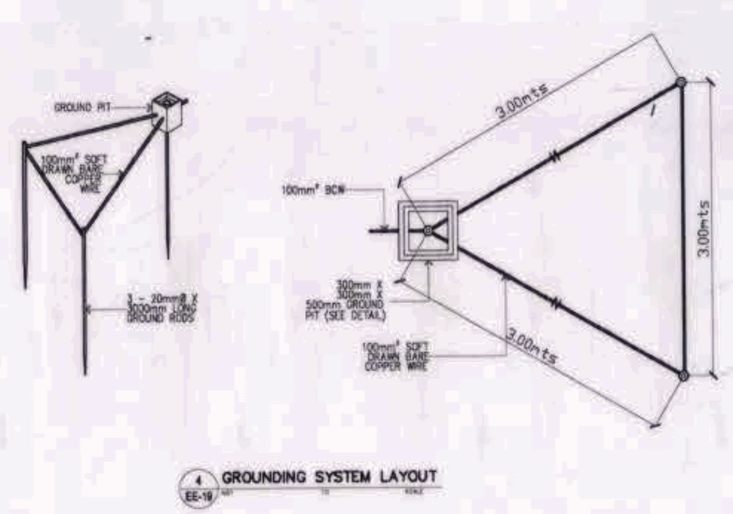


PULLBOX AND CABLE RISER SUPPORT DETAIL

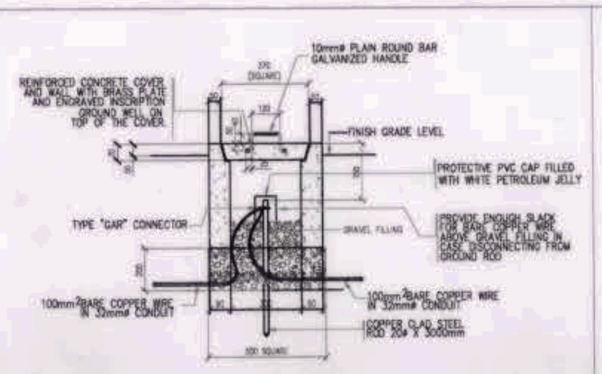


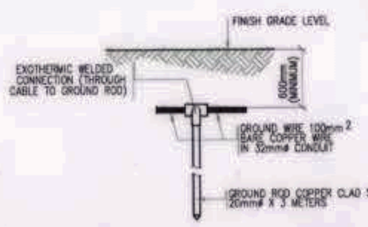


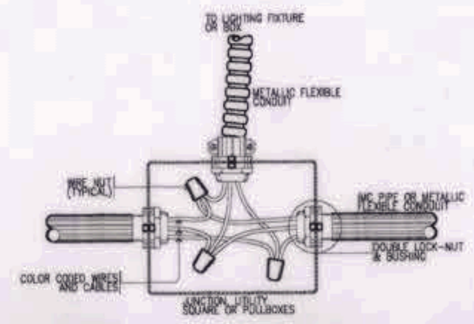


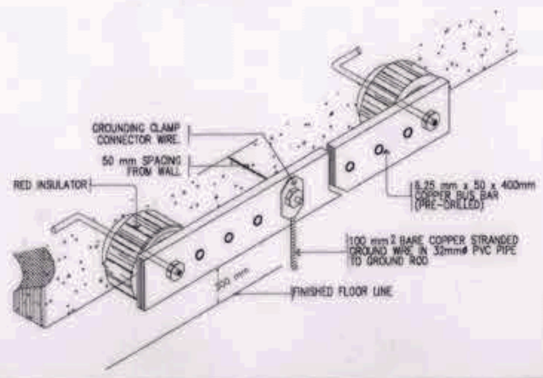


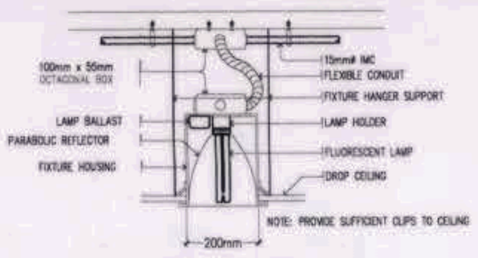
AIR TERMINAL MOUNTING DETAIL

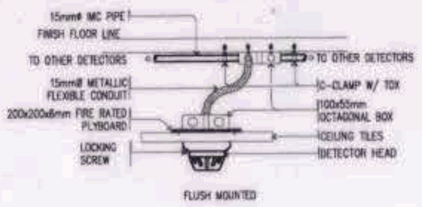


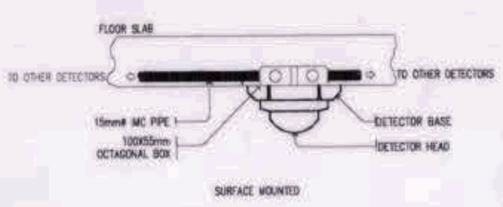


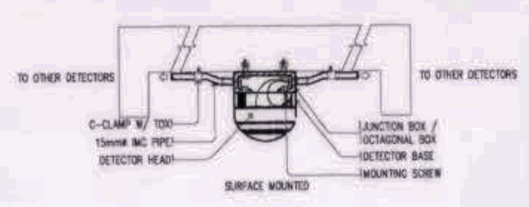












Note:
Pursuant to Section 4 of Annex "A" of the Revised Implementing Rules and Regulations of R.A. 9184, approval of detailed engineering survey and design undertaken by Design Consultants neither diminishes the responsibility of the latter for the technical integrity of the surveys and designs nor transfer any part of that responsibility to the approving officials.

The Design Consultant shall be held fully responsible for the failure of the facilities/structures due to faulty design except for the changes made without the conformity of the Design Consultants.

GRAPHIC SCALE:

4000 10000
1:200

N

MISCELLANEOUS DETAIL PART-3

A EE-19 SCALE: NTS

OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA — VIVENCIO B. DIZON, PRESIDENT — AND — MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	Hilmarc's Construction Corporation, 1835 E. Rodriguez Sr., Avenue, Cubao, Quezon City — JESUS V. HERBAS, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING — NGAC PHASE 1A — AQUATIC CENTER — NEW CLARK CITY, CAPAS, TARLAC	MISCELLANEOUS DETAIL PART-3	EE-19

1 EE-01 GENERAL NOTES

SCALE NTS

ALL ELECTRICAL WORKS HEREIN SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINES ELECTRICAL CODE, THE LAWS AND ORDINANCE OF THE LOCAL CODE ENFORCING AUTHORITIES AND REQUIREMENTS OF THE LOCAL POWER AND TELEPHONE COMPANY.

1. INCOMING PRIMARY SERVICE POWER SHALL BE 13.8 KV, 3ø, 4W+G, 60HZ SYSTEM. BUILDING UTILIZATION VOLTAGE SHALL BE 400V/230V, 3ø, 4W+G, 60HZ SYSTEM.
2. ALL WIRING METHOD FOR LIGHTING, POWER, TELEPHONE, CCTV, FIRE DETECTION AND ALARM SYSTEM SHALL BE DONE IN PVC TYPE FOR ALL EMBEDDED IN CONCRETE SLAB AND METALLIC CONDUIT FOR CONCEALED IN DROP CEILING AND FALSE WALLS, EXPOSED CONDUIT LAYOUT, FEEDER DISTRIBUTION AND MAJOR POWER CONDUIT RISER.
3. SMALLEST BRANCH CIRCUIT WIRE SHALL BE 3.5mm² THHN FOR POWER AND LIGHTING SYSTEM IN RACEWAY 15mm# TRADE SIZE CONDUIT. WIRES SHALL BE INSULATED FOR 600 VOLTS.
4. ALL BRANCH CIRCUIT HOMERUN SHALL BE INSTALLED AS INDICATED IN THE PLAN. EXPOSED CONDUIT RUN SHALL BE INSTALLED PARALLEL TO OR PERPENDICULAR WITH THE BUILDING LINE AND SUPPORTED BY CONDUIT CLAMPS EVERY 1.5 METERS, DIAGONAL CONDUIT RUN SHALL NOT BE ACCEPTED.
5. WHENEVER NECESSARY PULLBOX OF PROPER SIZE AND DIMENSION SHALL BE PROVIDED ALTHOUGH NOT INDICATED IN THE PLAN. ALL BOXES SHALL BE PROVIDED WITH METAL PLATE COVER.
6. SIZING OF ALL PULLBOXES SHALL BE COMPUTED BASED ON THE CODE REQUIREMENTS. SUBMIT SHOP DRAWING FOR APPROVAL PRIOR TO FABRICATION. LOCATION OF PULLBOXES SHALL BE AS APPROVED BY THE ARCHITECT/ENGINEER
7. USE CAST-DEVICE BOXES FOR ALL OUTDOOR INSTALLATIONS, THIS INCLUDES BODIES AND FITTING.
8. ALL LIGHTING FIXTURES SHALL BE LED TYPE EQUIPPED WITH ELECTRONIC DRIVER, SPRING LOADED LAMPHOLDERS.
9. ALL LIGHT CONTROLLED SWITCHES SHALL BE RATED 15 AMPS. 220V AC ONLY. SWITCHES SHALL BE INSTALLED FOR OPERATION WITH HORIZONTAL MOTION.
10. ALL PANELBOARD SHALL BE PROVIDED WITH MULTIPLE GROUNDING TERMINALS FOR SOLID AND NEUTRAL. GROUNDING WIRE SHALL BE CONNECTED TO A GROUND SYSTEM.
11. ALL ENCLOSED CIRCUIT BREAKER SHALL BE PROVIDED WITH GROUND LUGS
12. THE ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PANELBOARDS PRIOR TO FABRICATION. SINGLE BRAND OF CIRCUIT BREAKER AND APPROVED PANELBOARD FABRICATOR SHALL BE UTILIZED FOR CIRCUIT BREAKER COORDINATION.
13. ALL BRANCH CIRCUIT HOMERUN FOR POWER AND LIGHTING SHALL NOT BE COMBINED IN THE SAME RACEWAY.
14. FOR EACH SPARE CIRCUIT BREAKER IN PANELBOARD PROVIDE 15mm# RACEWAY TERMINATING IN 100mm DEEP TYPE SQUARE BOX WITH COVER BELOW CEILING SLAB AND SHALL BE PROVIDED WITH PULL WIRE.
15. ALL METALLIC CONDUIT, CABINET, BOXES AND EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED.
16. ALL MATERIALS TO BE USED SHALL BE NEW AND APPROVED FOR THE LOCATION AND PURPOSE.
17. MOLDED CASE CIRCUIT BREAKERS SHALL BE USED FOR PUMPS AND MOTORS.
18. ALL BOXES SHALL BE MADE OF CODE GAUGE STEEL WITH ZINC CHROMATE PROTECTION.
19. ALL RECEPTACLE OUTLET SHALL BE PROPERLY GROUNDED TO THE BOX BY MEANS OF GROUNDING LUGS.
20. MOUNTING HEIGHT NOT SHOWN SCHEDULE ARE AS FOLLOWS:
    a. LIGHT CONTROLLED SWITCHES ——— 1.37 METER ABOVE FLOOR FINISH AT CENTER UNLESS OTHERWISE INDICATED BY THE FIELD CONDITIONS.
    b. DUPLEX CONVENIENCE OUTLET ——— 0.30 METER ABOVE FLOOR FINISH AT CENTER UNLESS OTHERWISE INDICATED BY THE FIELD CONDITIONS.
    c. TELEPHONE OUTLET ——— 0.30 METER ABOVE FLOOR FINISH AT CENTER UNLESS OTHERWISE INDICATED BY THE FIELD CONDITIONS.
    d. PANELBOARD / DISCONNECT ——— 1.83 METER ABOVE FLOOR FINISH TO THE TOP OF PANEL UNLESS OTHERWISE INDICATED BY THE FIELD CONDITIONS.
21. ALL WIRES AND CABLES SHALL BE PAINTED AND COLOR CODED AS FOLLOWS:
    a. PHASE A ——— RED
    b. PHASE B ——— YELLOW
    c. PHASE C ——— BLUE
    d. NEUTRAL ——— WHITE
    e. GROUND ——— GREEN
22. ALL CONDUIT, BOXES AND SUPPORT SHALL BE PAINTED AND COLOR CODED AS FOLLOWS:
    a. LIGHTING & POWER SYSTEM ——— GRAY
    b. TEL. & CCTV ——— ORANGE
    c. FIRE ALARM SYSTEM ——— RED
23. ALL CONDUIT SLEEVES, FLOOR PIPE CHASE AND WALL SLOT PENETRATION THROUGH ELECTRICAL ROOM, WALLS, CLOSET, SPACE SHALL BE PROPERLY SEALED-OFF WITH FIRE RETARDANT MATERIAL TO MAINTAIN FIRE RESISTIVE RATING OF THE FLOOR OPENING.
24. THE ELECTRICAL CONTRACTOR SHALL SECURE ALL WIRING PERMITS AND ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH, THE OWNER THROUGH THE ENGINEERS, FINAL CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETED WORK.
25. THE ELECTRICAL CONTRACTOR SHALL VERIFY AND STUDY THE ARCHITECTURAL SCALE DRAWINGS, LARGE SCALE AND FULL-SIZE DETAILS, APPROVED SHOP DRAWING FROM OTHER TRADES AND SHALL FREQUENTLY CONSULT AND COORDINATE WITH OTHER TRADES TO AVERT CONFLICT IN ACTUAL SITE INSTALLATION WORK.
26. THE ELECTRICAL CONTRACTOR SHOULD REFER TO ARCHITECTURAL OR INTERIOR DESIGN DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHT OF ALL VISIBLE WIRING DEVICES, LIGHTING FIXTURES AND THE LIKES.
27. THE ELECTRICAL CONTRACTOR SHALL PROVIDE SHOP DRAWING IN ANY CHANGES IN MOUNTING HEIGHT OR LOCATION FOR THE APPROVAL OF ARCHITECT OR ENGINEER.
28. ANY DISCREPANCIES BETWEEN PLANS AND SPECIFICATIONS, CONFLICT WITH OTHER TRADE OR SITE CONDITION SHALL REFER TO ENGINEER AND/OR ARCHITECT.
29. ALL WIRES AND CABLE WITHIN PULLBOXES, GUTTER, WIREWAY AND SWITCHBOARD SHALL BE BUNDLED TOGETHER PER SET AND PROPERLY AND PERMANENTLY MARKED AND LABELLED SPECIFYING SIZE AND LOAD SERVE EVERY 3.0 METERS.
30. ALL RECEPTACLE OUTLET SHALL BE PROPERLY AND PERMANENTLY LABELLED INDICATING PANELBOARD CONNECTION AND BRANCH CIRCUIT HOMERUN.
31. FOR EVERY LENGTH OF ALL CONDUIT EXPOSED CONDUIT, VERTICAL CONDUIT RISER, HORIZONTAL RUN AND BUSWAY RISER SHAL BE PROPERLY MARKED AND LABELLED INDICATING SIZE AND LOAD SERVE. LABELLING SHALL BE EVERY 3.0 METERS.
32. ALL ELECTRICAL WORKS HEREIN SHALL BE DONE UNDER THE DIRECT AND IMMEDIATE SUPERVISION OF A DULY QUALIFIED LICENSED ELECTRICAL ENGINEER.
33. UPON COMPLETION OF ELECTRICAL WORKS, INSULATION, GROUNDING AND LOAD BALANCING TEST SHALL BE CONDUCTED AND SUBMIT RESULT FOR FURTHER EVALUATION.

ALL MOUNTING HEIGHTS ARE SUBJECT TO THE APPROVAL OF THE ARCHITECT / OWNER.

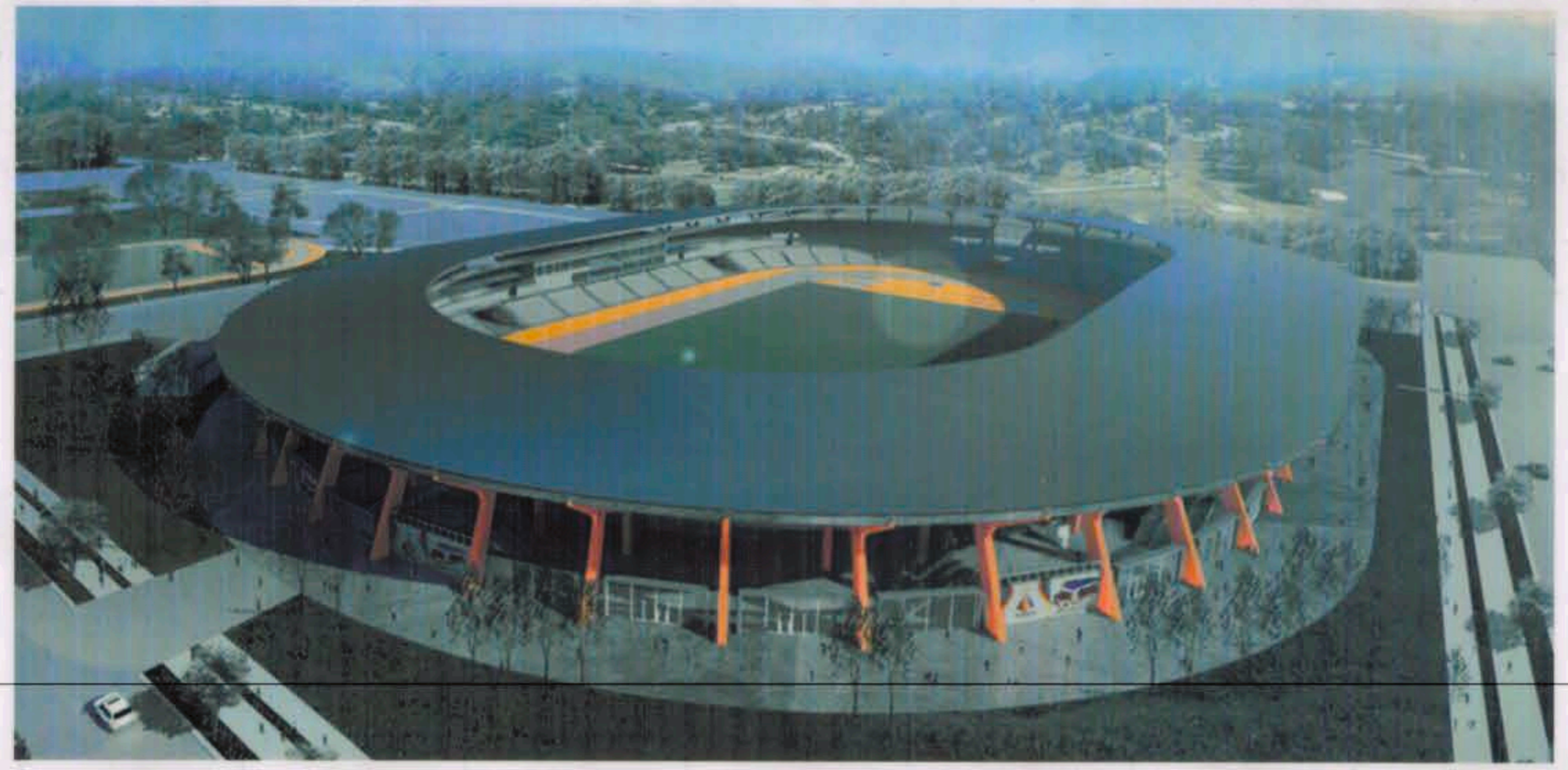
2 EE-01 LEGENDS AND SYMBOLS

SCALE NTS

L01	SURFACE MOUNTED LINEAR LIGHT LED WITH OPAL WHITE DIFFUSER, 40W, 1213mm, FOR OFFICES AND LOBBIES. SHADED FIXTURE WITH "EM" DENOTES FIXTURE WITH BATTERY PACK.
L01	SURFACE MOUNTED LINEAR LIGHT LED WITH OPAL WHITE DIFFUSER, 40W, 600mm, FOR HALLWAYS. SHADED FIXTURE WITH "EM" DENOTES FIXTURE WITH BATTERY PACK.
D01	SQUARE SURFACE MOUNTED LED WAVE DOWNLIGHT 12W FOR OFFICES AND TOILETS. SHADED FIXTURE WITH "EM" DENOTES FIXTURE WITH BATTERY PACK.
PL02	30W-600x600mm RECESSED MOUNTED PANEL LIGHT, FOR OFFICES AND SPECIAL ROOMS. SHADED FIXTURE WITH "EM" DENOTES FIXTURE WITH BATTERY PACK
S01	SURFACE MOUNTED LUMINAIRE IP65 12W FOR UTILITY BUILDING/ROOMS. SHADED FIXTURE WITH "EM" DENOTES FIXTURE WITH BATTERY PACK.
S02	SURFACE MOUNTED LUMINAIRE IP65 2 X 10.5W FOR STORAGE AND EQUIPMENT ROOMS. SHADED FIXTURE WITH "EM" DENOTES FIXTURE WITH BATTERY PACK.
S03	SURFACE MOUNTED LUMINAIRE IP65 2 X 10.5W FOR STORAGE AND EQUIPMENT ROOMS. SHADED FIXTURE WITH "EM" DENOTES FIXTURE WITH BATTERY PACK.
C01	LED STRIP 16W/ METER
LF6	50W-HIGH BAY LED LIGHTS , 5900lm, WITH GREY BODY FINISH FOR GENERAL AREAS, AND LOBBIES. (VERIFY TO ARCHITECT FOR SPECIFICATIONS AND LOCATIONS.)
LF7	75W-HIGH BAY LED LIGHTS , 8800lm, WITH GREY BODY FINISH FOR GENERAL AREAS, LOBBIES, ENTRANCES, AND BLEACHERS.(VERIFY TO ARCHITECT FOR SPECIFICATIONS AND LOCATIONS.)
F9	WALL MOUNTED EMERGENCY LIGHT, NON-MAINTAINED TYPE, COMPLETE WITH 2.4 VOLTS, 4AH NICKEL CADMIUM CELL, BATTERY BACK-UP, INVERTER BATTERY PROTECTION, 16 HOURS RE-CHARGED PERIOD, CONSTANT CURRENT CHARGER, 2 HOURS MINIMUM BATTERY OPERATION TIME, TEST BUTTON, CHARGE INDICATOR LAMP, AND OTHER STANDARD ACCESSORIES.
F10	EXIT SIGN, MAINTAINED TYPE, COMPLETE WITH 2.4 VOLTS, 4AH NICKEL CADMIUM CELL, BATTERY BACK-UP, INVERTER BATTERY PROTECTION, 16 HOURS RE-CHARGED PERIOD, CONSTANT CURRENT CHARGER ARROW DENOTES DIRECTION.
"EM"	LIGHTING FIXTURES WITH SHADED PORTION WITH "EM" DENOTES EQUIPPED WITH BATTERY PACK FOR EMERGENCY LIGHT (MAINTAINED TYPE) WITH 2 HOURS MINIMUM OPERATING TIME.
3Sa/S3W	SINGLE TUMBLER SWITCH / THREE WAY SWITCH
2Sab	TWO GANG TUMBLER SWITCH, NUMBER DENOTES NUMBER OF GANG IN A PLATE, SMALL LETTER DENOTES LIGHT CONTROLLED
	WALL MOUNTED DUPLEX CONVENIENCE OUTLET, 15A, UNIVERSAL, GROUNDING TYPE "WP" DENOTES WEATHER PROOF, "GFCI" DENOTES GROUND FAULT CIRCUIT INTERRUPTER, AND "HD" DENOTES HAND DRYER, "BC" DENOTES BATTERY CHARGER
	FLOOR MOUNTED CONVENIENCE OUTLET
	CEILING MOUNTED / WALL MOUNTED SPECIAL PURPOSE OUTLET
	CEILING MOUNTED / WALL MOUNTED JUNCTION BOX
	ELECTRIC MOTOR, RATING AS INDICATED
	ELECTRIC MOTOR CONTROLLER
	ENCLOSED CIRCUIT BREAKER, RATING AS INDICATED
	PANELBOARD
	STUB-OUT CONDUIT
	CONDUIT BRANCH CIRCUIT HOMERUN TO PANELBOARD
	CONDUIT RUN EMBEDDED OR CONCEALED IN CONCRETE FLOOR SLAB OR CONCRETE WALLS
	CIRCUIT BREAKER, RATING AS INDICATED
RU/RD	CONDUIT RISER UP / CONDUIT RISER DOWN
GW/GR	GROUND WELL WITH COVER AND 20mm# x 3000mm LONG GROUND ROD
GR	20mm# x 3000mm LONG GROUND ROD
	6.25mm x 50mm x 400mm GROUNDING BUS (PRE-DRILLED)

ABBREVIATIONS:

ATS	-	AUTOMATIC TRANSFER SWITCH
MVSG	-	MEDIUM VOLTAGE SWITCHGEAR
LVSG	-	LOW VOLTAGE SWITCHGEAR
KAIC	-	KILO AMPERE INTERRUPTING CAPACITY
ECB	-	ENCLOSED CIRCUIT BREAKER
ACB	-	AIR CIRCUIT BREAKER
MCB	-	MINIATURE CIRCUIT BREAKER
MCCB	-	MOULDED CASE CIRCUIT BREAKER
FCC	-	FIRE COMMAND CENTER
MDF	-	MAIN DISTRIBUTION FRAME
ELVS	-	EXTRA LOW VOLTAGE SYSTEM



4 EE-01 PERSPECTIVE

SCALE NTS

3 EE-01 DRAWING INDEX

SCALE NTS

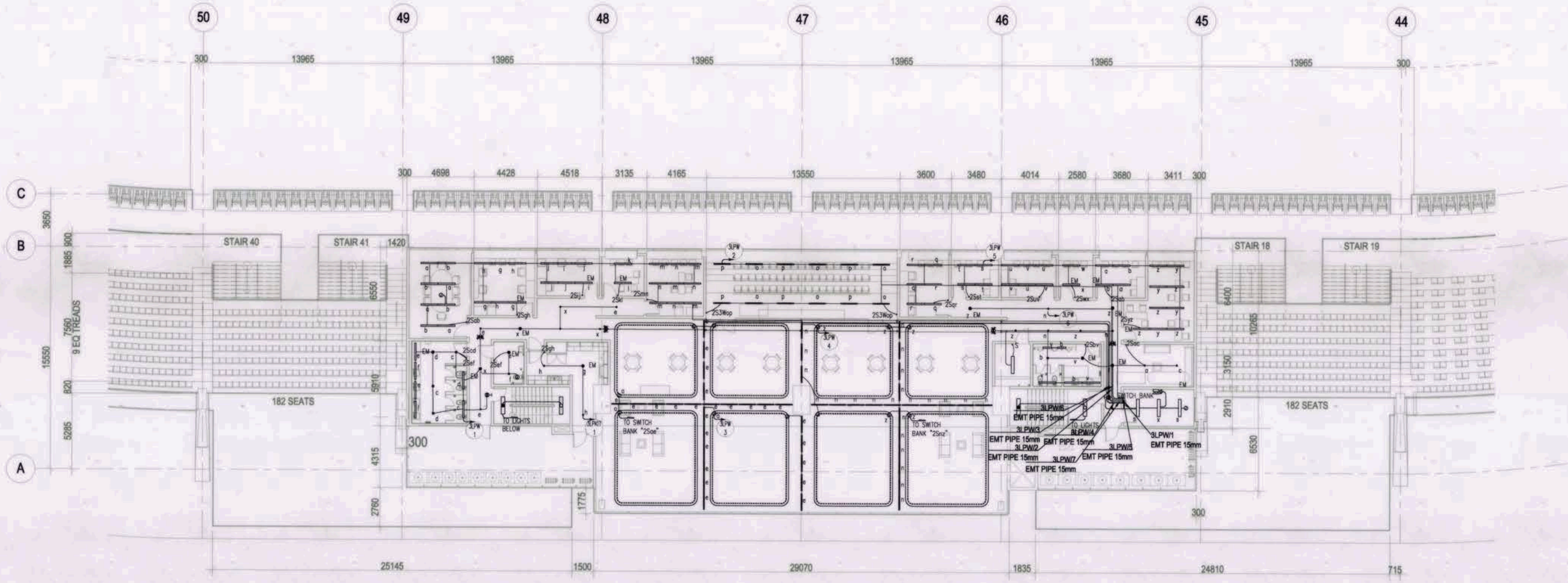
SHEET NO.	SHEET TITLE
EE-1	GENERAL NOTES, LEGEND AND SYMBOLS, DRAWING INDEX, SITE DEVELOPMENT PLAN
EE-2	GROUNDING LAYOUT
EE-3	SITE DEVELOPMENT PLAN
EE-4	DUCT BANK LAYOUT
EE-5	WARM-UP TRACK LAYOUT
EE-6	GROUND FLOOR LIGHTING SYSTEM LAYOUT
EE-6.A	PARTIAL NORTH EAST GROUND FLOOR LIGHTING SYSTEM LAYOUT
EE-6.B	PARTIAL EAST GROUND FLOOR LIGHTING SYSTEM LAYOUT
EE-6.C	PARTIAL SOUTH EAST GROUND FLOOR LIGHTING SYSTEM LAYOUT
EE-6.D	PARTIAL SOUTH WEST GROUND FLOOR LIGHTING SYSTEM LAYOUT
EE-6.E	PARTIAL WEST GROUND FLOOR LIGHTING SYSTEM LAYOUT
EE-6.F	PARTIAL NORTH WEST GROUND FLOOR LIGHTING SYSTEM LAYOUT
EE-7	GROUND FLOOR POWER SYSTEM LAYOUT
EE-7.A	PARTIAL NORTH EAST GROUND FLOOR POWER SYSTEM LAYOUT
EE-7.B	PARTIAL EAST GROUND FLOOR POWER SYSTEM LAYOUT
EE-7.C	PARTIAL SOUTH EAST GROUND FLOOR POWER SYSTEM LAYOUT
EE-7.D	PARTIAL SOUTH WEST GROUND FLOOR POWER SYSTEM LAYOUT
EE-7.E	PARTIAL WEST GROUND FLOOR POWER SYSTEM LAYOUT
EE-7.F	PARTIAL NORTH WEST GROUND FLOOR POWER SYSTEM LAYOUT
EE-8	SECOND FLOOR LIGHTING SYSTEM LAYOUT
EE-8.A	PARTIAL WEST SECOND FLOOR LIGHTING SYSTEM LAYOUT
EE-8.B	PARTIAL NORTH EAST SECOND FLOOR LIGHTING SYSTEM LAYOUT
EE-8.C	PARTIAL SOUTH EAST SECOND FLOOR LIGHTING SYSTEM LAYOUT
EE-8.D	PARTIAL NORTH WEST SECOND FLOOR LIGHTING SYSTEM LAYOUT
EE-8.E	PARTIAL SOUTH WEST SECOND FLOOR LIGHTING SYSTEM LAYOUT
EE-9	PARTIAL WEST SECOND FLOOR POWER SYSTEM LAYOUT
EE-10	THIRD FLOOR LIGHTING SYSTEM LAYOUT
EE-10.A	PARTIAL WEST THIRD FLOOR LIGHTING SYSTEM LAYOUT
EE-10.B	PARTIAL NORTH EAST THIRD FLOOR LIGHTING SYSTEM LAYOUT
EE-10.C	PARTIAL SOUTH EAST THIRD FLOOR LIGHTING SYSTEM LAYOUT
EE-10.D	PARTIAL NORTH WEST THIRD FLOOR LIGHTING SYSTEM LAYOUT
EE-10.E	PARTIAL SOUTH WEST THIRD FLOOR LIGHTING SYSTEM LAYOUT
EE-11	THIRD FLOOR POWER SYSTEM LAYOUT
EE-11.A	PARTIAL SOUTH WEST THIRD FLOOR POWER SYSTEM LAYOUT
EE-11.B	PARTIAL WEST THIRD FLOOR POWER SYSTEM LAYOUT
EE-12	ROOF PLAN LIGHTNING PROTECTION SYSTEM LAYOUT
EE-13	POWER HOUSE BLOW-UP PLAN (LIGHTING AND POWER)
EE-14	LOAD SCHEDULE PART 1 OF 2
EE-15	LOAD SCHEDULE PART 2 OF 2
EE-16	POWER RISER DIAGRAM PART 1 OF 2
EE-17	POWER RISER DIAGRAM PART 2 OF 2
EE-18	GROUNDING RISER DIAGRAM
EE-19	MISCELLANEOUS DETAILS PART 1
EE-20	MISCELLANEOUS DETAILS PART 2
EE-21	MISCELLANEOUS DETAILS PART 3



5 EE-01 VICINITY MAP

SCALE NTS

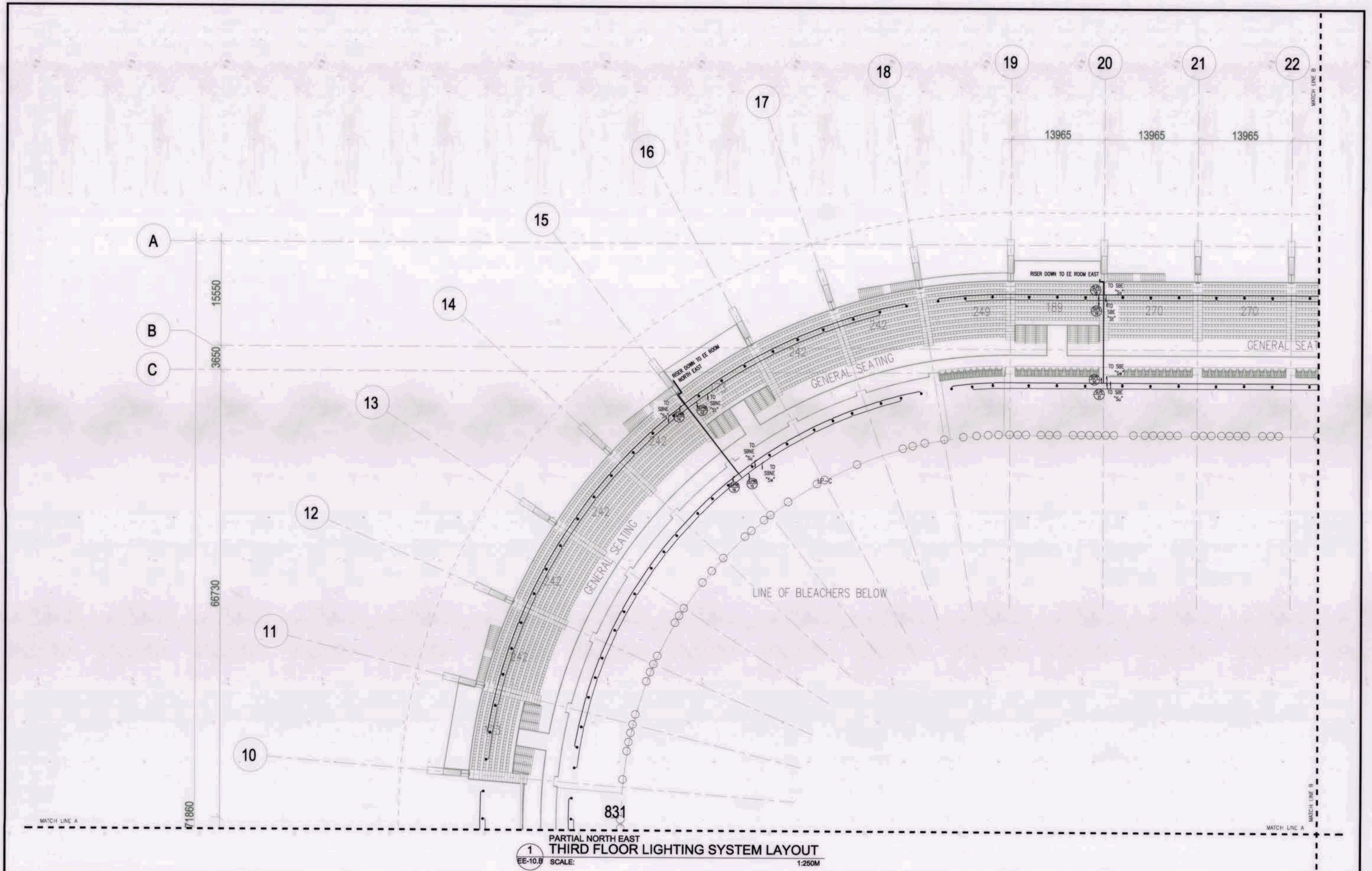
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	GENERAL NOTES LEGENDS AND SYMBOLS DRAWING INDEX PERSPECTIVE VICINITY MAP	EE-1



1 EE-10.A

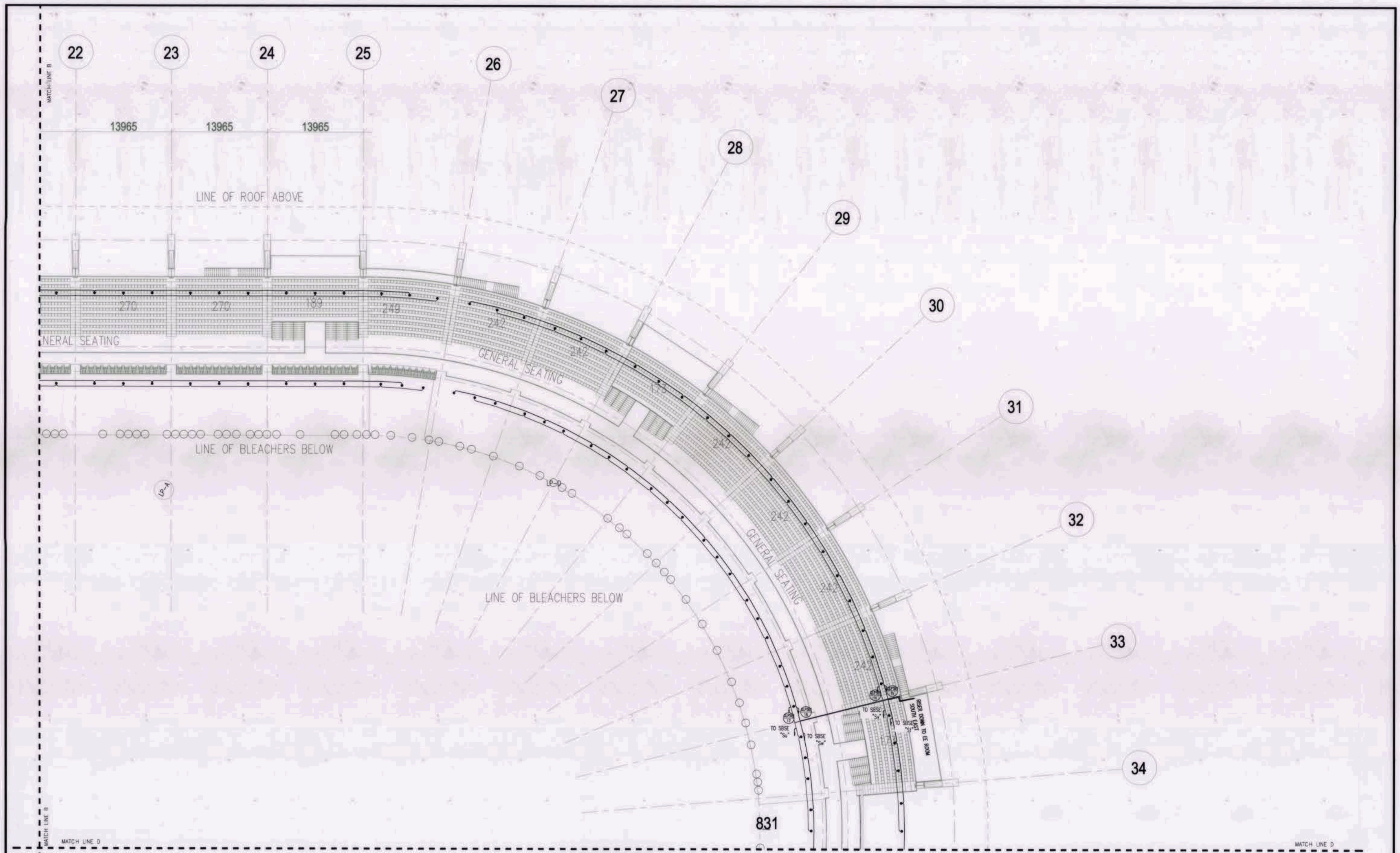
PARTIAL WEST
THIRD FLOOR LIGHTING SYSTEM LAYOUT
SCALE: 1:150M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Const. Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL WEST THIRD FLOOR LIGHTING SYSTEM LAYOUT	EE-10.A



PARTIAL NORTH EAST
1 THIRD FLOOR LIGHTING SYSTEM LAYOUT
EE-10.B SCALE: 1:250M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA Clark Development Corporation AND MTD Global Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS F. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/COO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL NORTH EAST THIRD FLOOR LIGHTING SYSTEM LAYOUT	EE-10.B

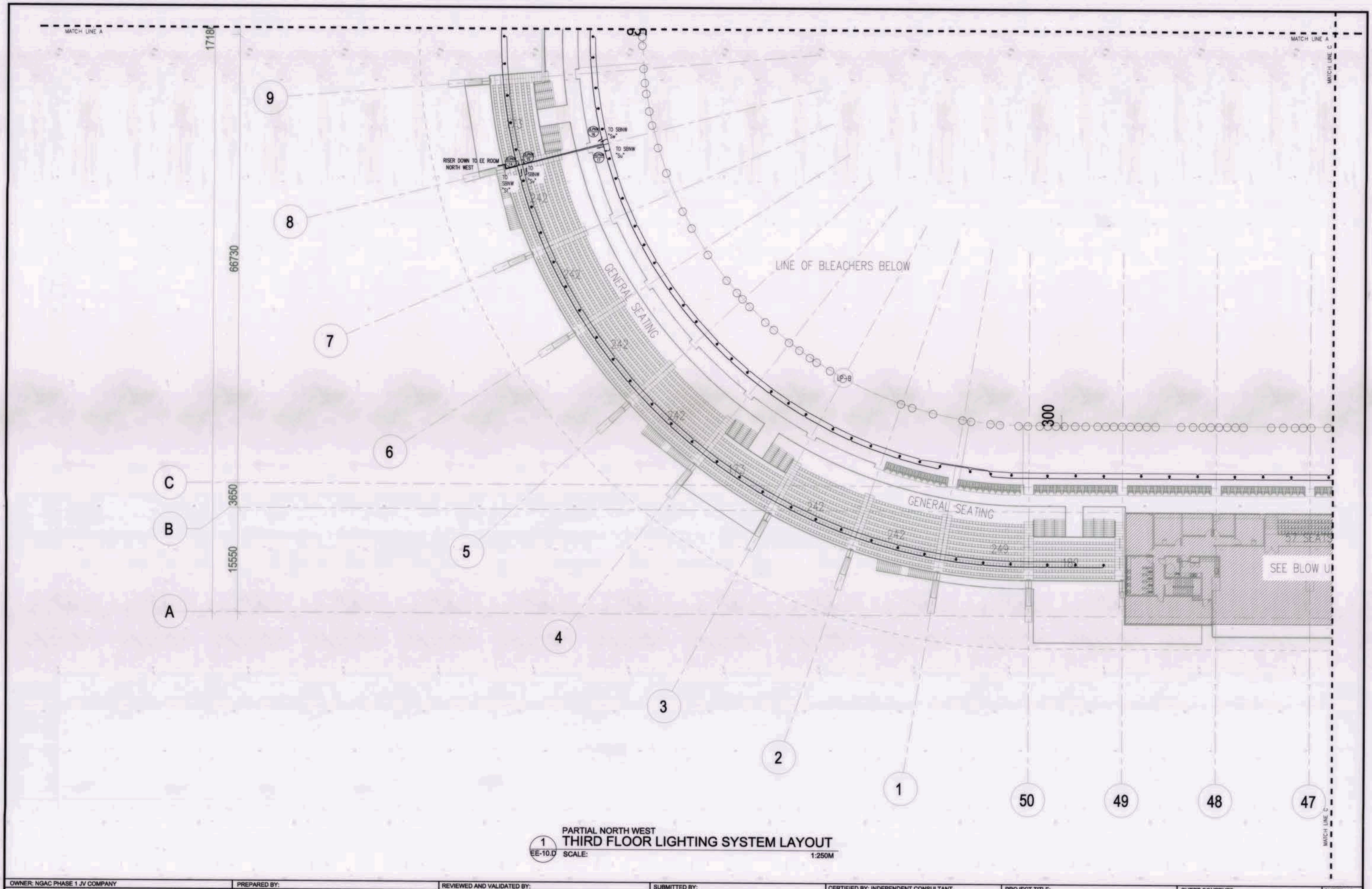


1 EE-10.C

PARTIAL SOUTH EAST
THIRD FLOOR LIGHTING SYSTEM LAYOUT

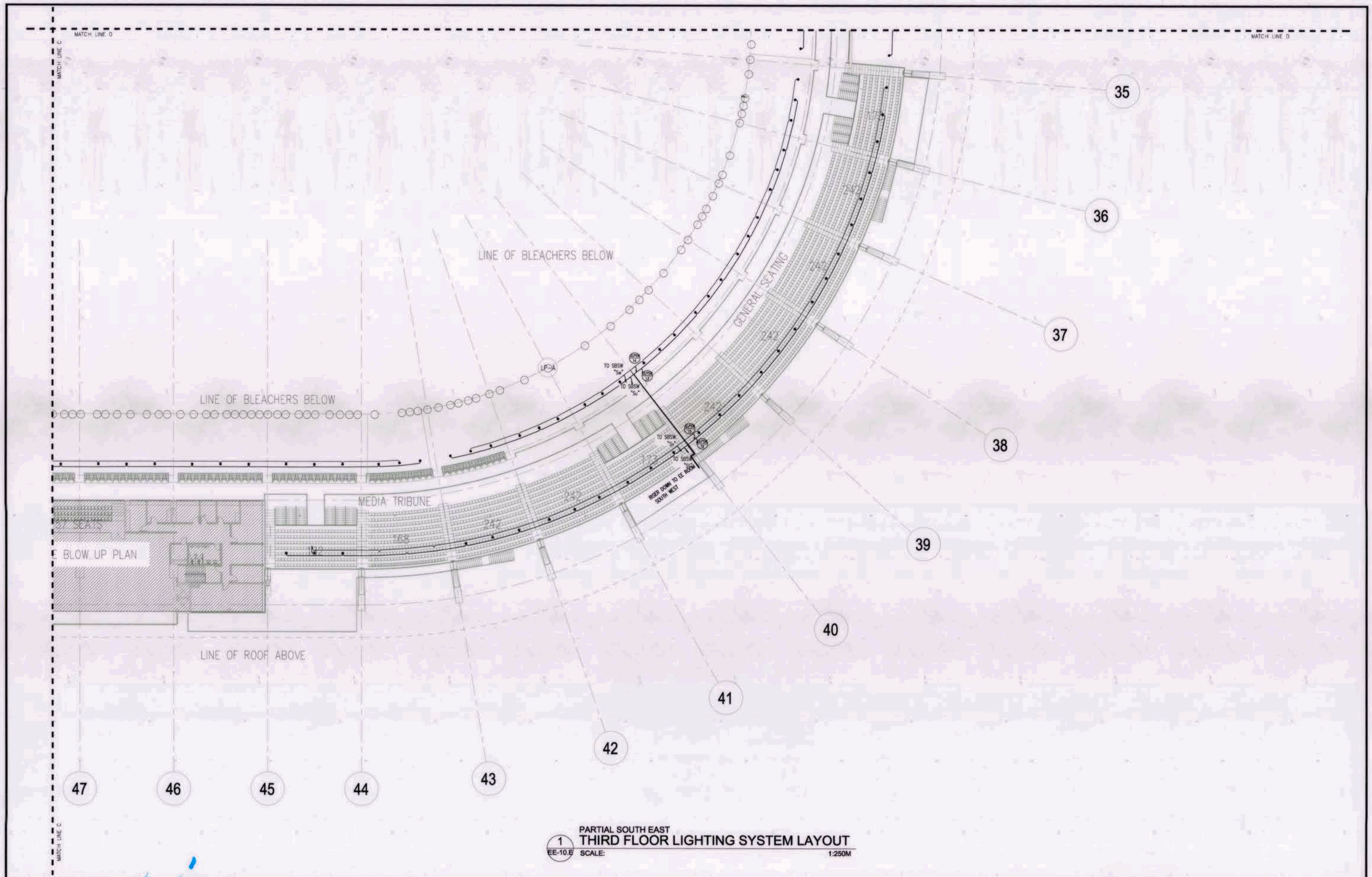
SCALE: 1:250M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL SOUTH EAST THIRD FLOOR LIGHTING SYSTEM LAYOUT	EE-10.C



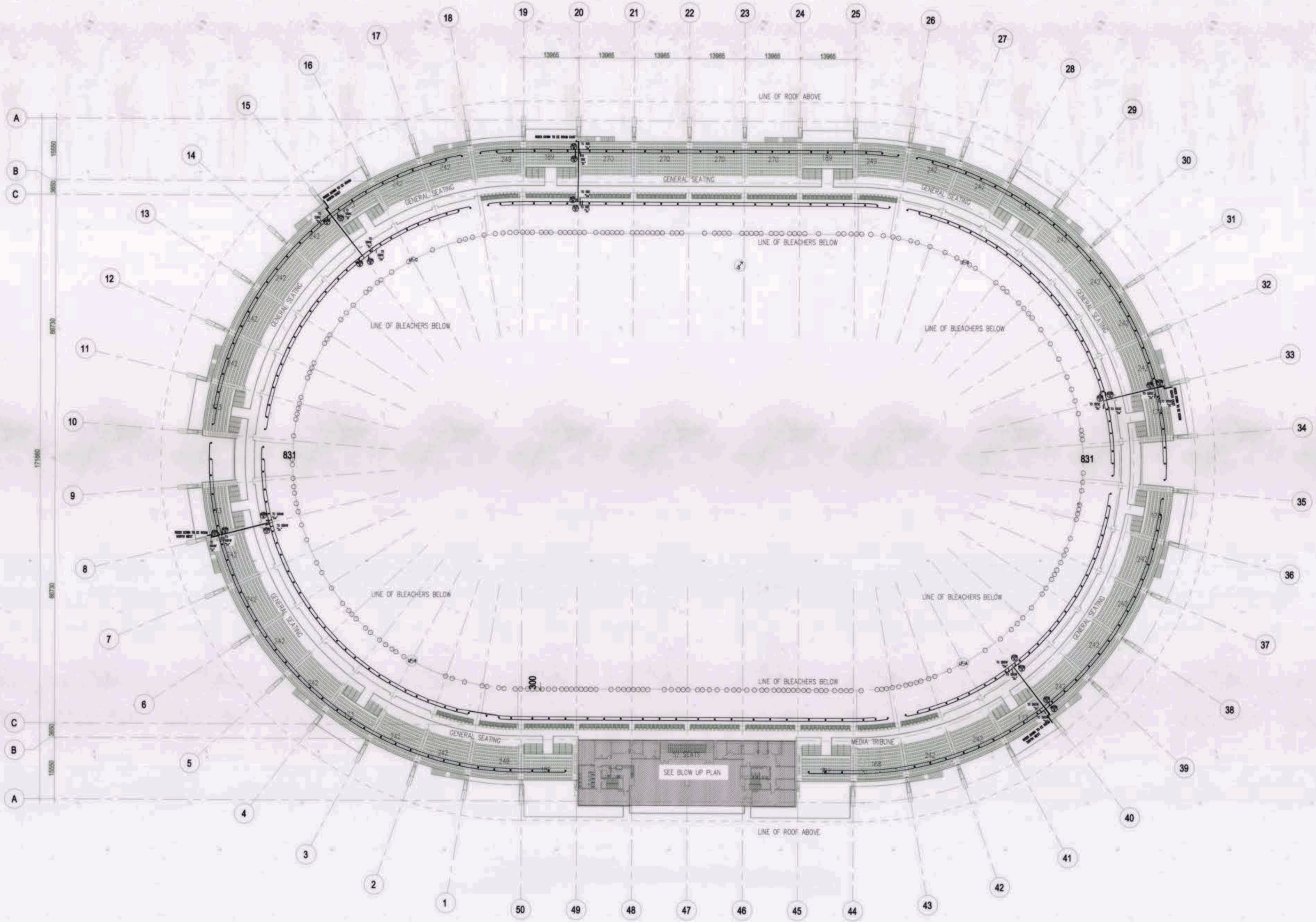
PARTIAL NORTH WEST
1 EE-10.D **THIRD FLOOR LIGHTING SYSTEM LAYOUT**
SCALE: 1:250M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL NORTH WEST THIRD FLOOR LIGHTING SYSTEM LAYOUT	EE-10.D



PARTIAL SOUTH EAST
THIRD FLOOR LIGHTING SYSTEM LAYOUT
1 / EE-10.E SCALE: 1:250M

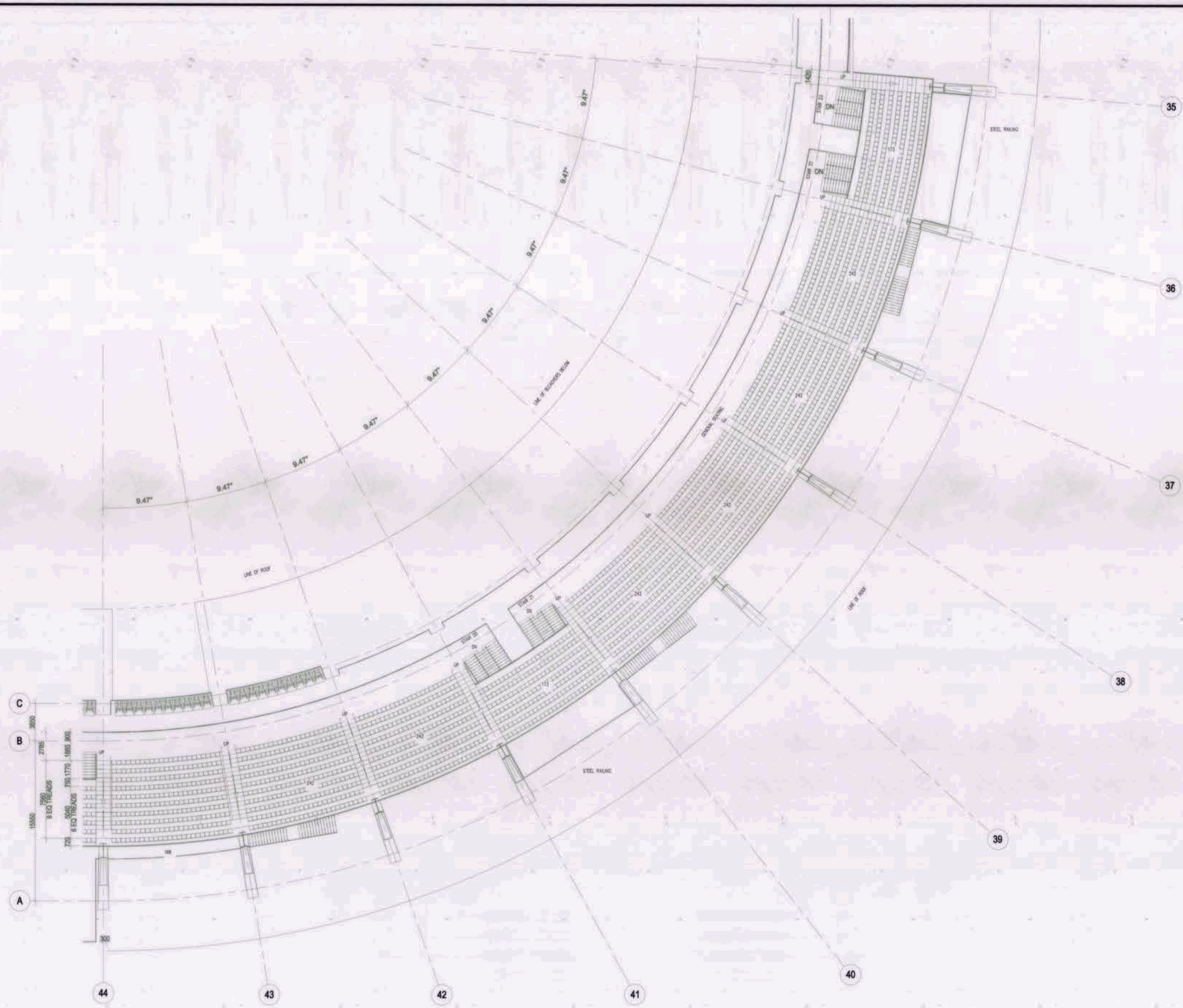
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO T. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL SOUTH EAST THIRD FLOOR LIGHTING SYSTEM LAYOUT	EE-10.E



1 / EE-10 THIRD FLOOR LIGHTING SYSTEM LAYOUT

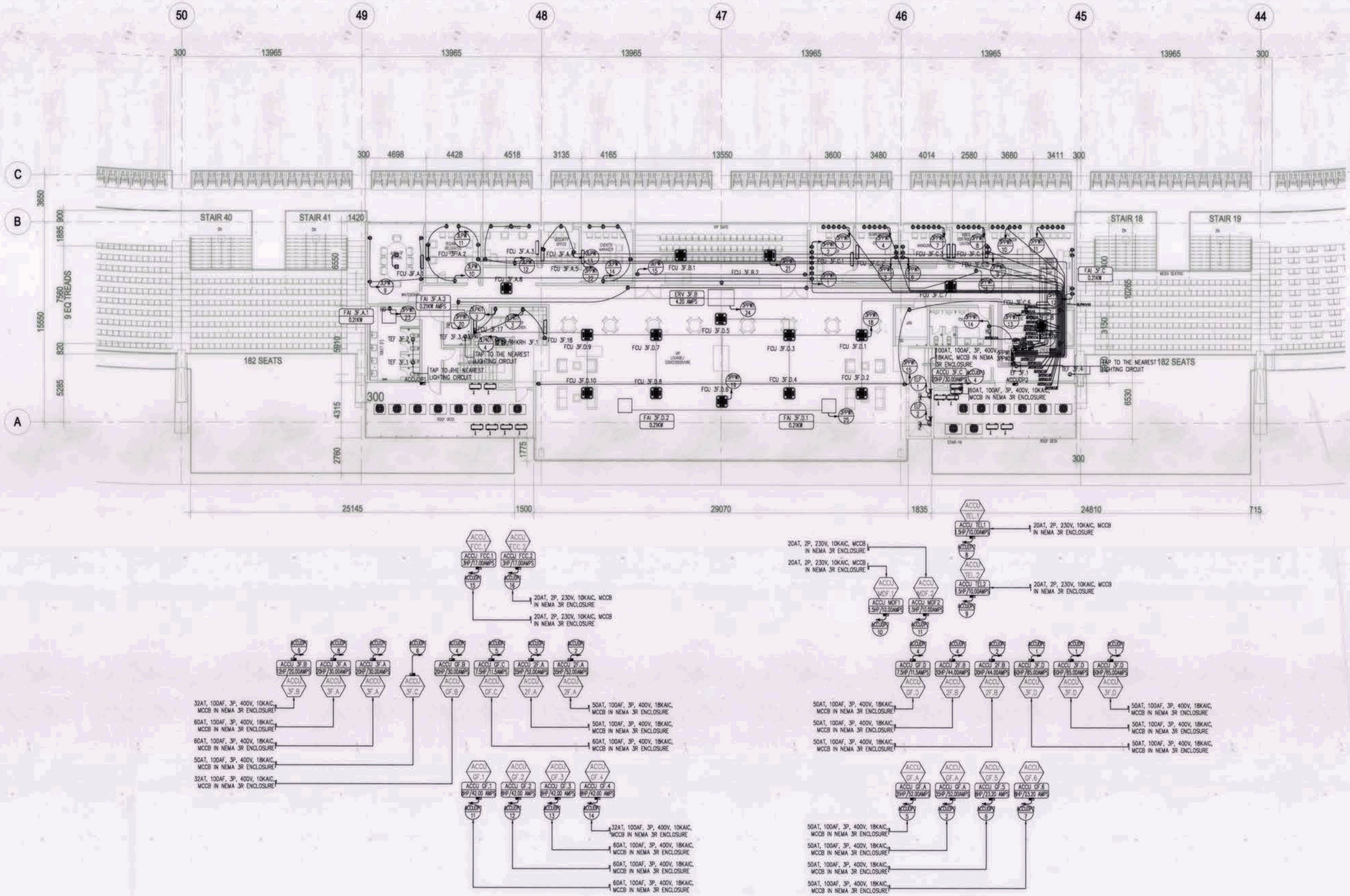
SCALE: 1:500M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	THIRD FLOOR LIGHTING SYSTEM LAYOUT	EE-10



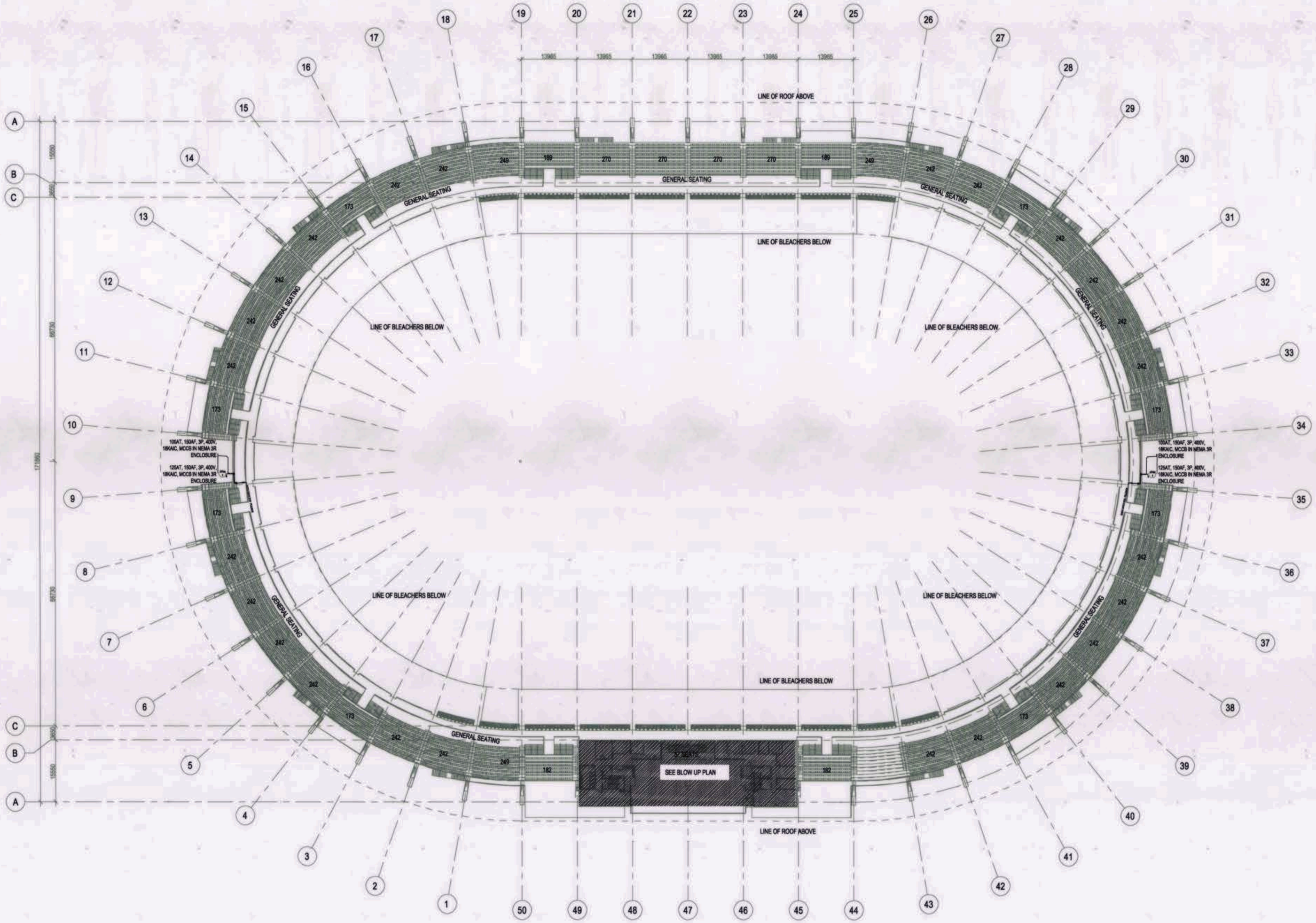
PARTIAL SOUTH WEST
1 THIRD FLOOR POWER SYSTEM LAYOUT
EE-11.A SCALE: 1:200M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL SOUTH WEST THIRD FLOOR POWER SYSTEM LAYOUT	EE-11.A



PARTIAL WEST
1 THIRD FLOOR POWER SYSTEM LAYOUT
EE-11.B SCALE: 1:150M

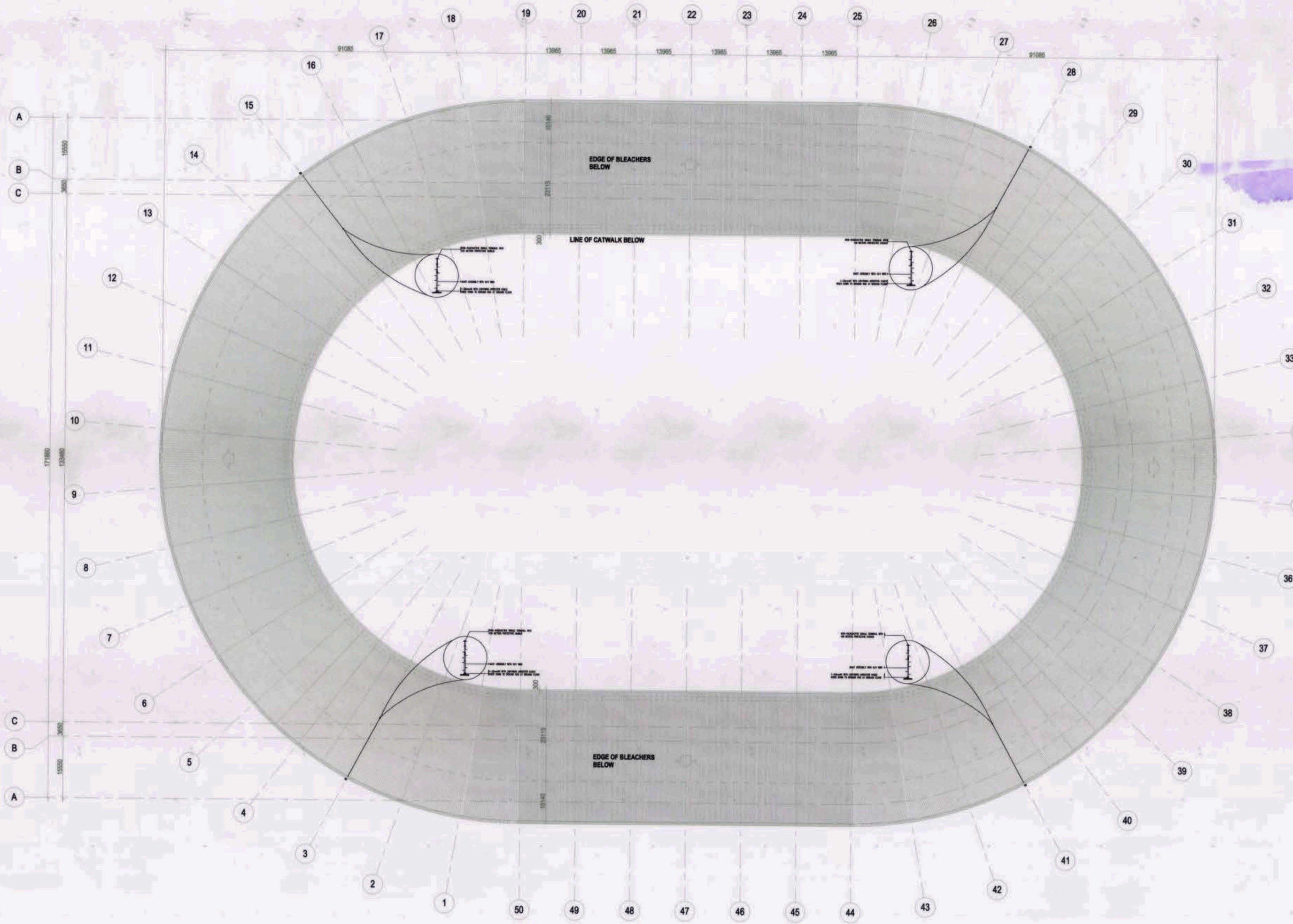
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL WEST THIRD FLOOR POWER SYSTEM LAYOUT	EE-11.B



1 THIRD FLOOR POWER SYSTEM LAYOUT

EE-11 SCALE 1:500M

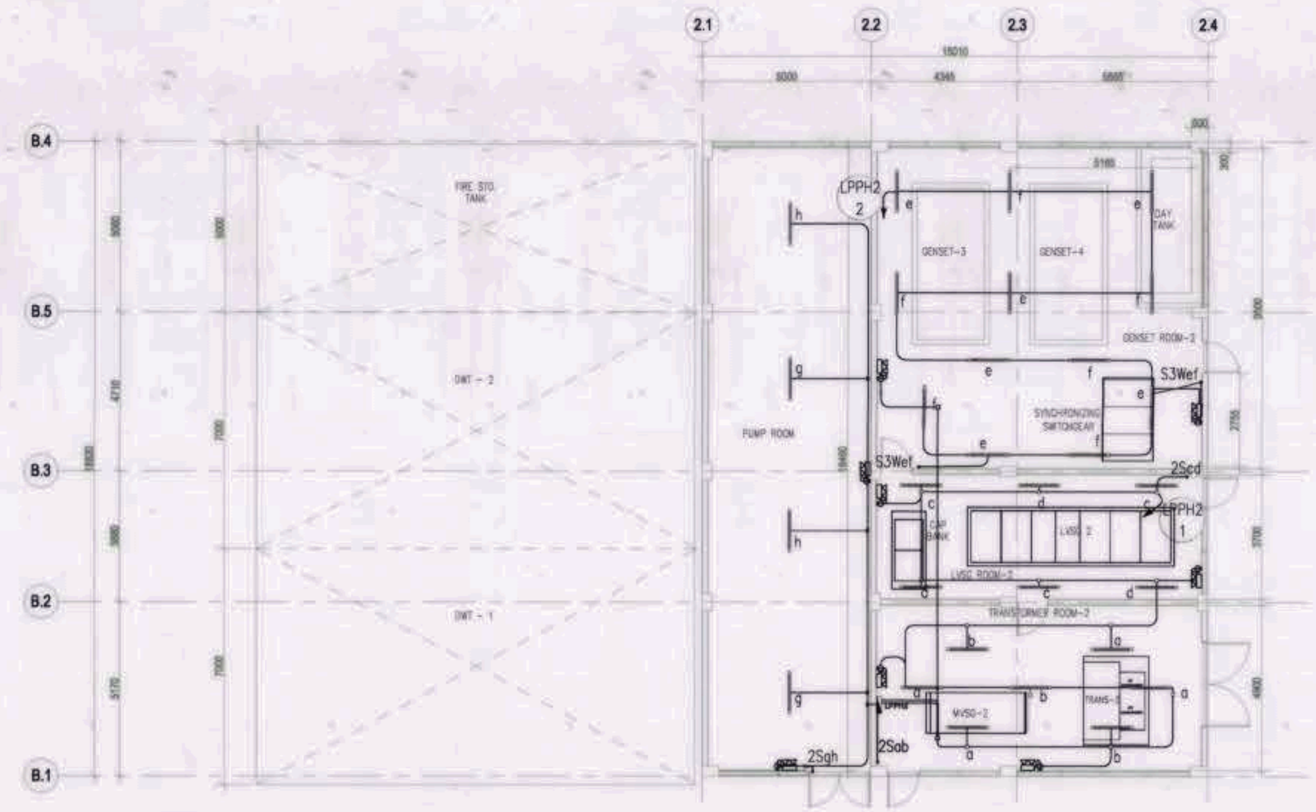
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	THIRD FLOOR POWER SYSTEM LAYOUT	EE-11

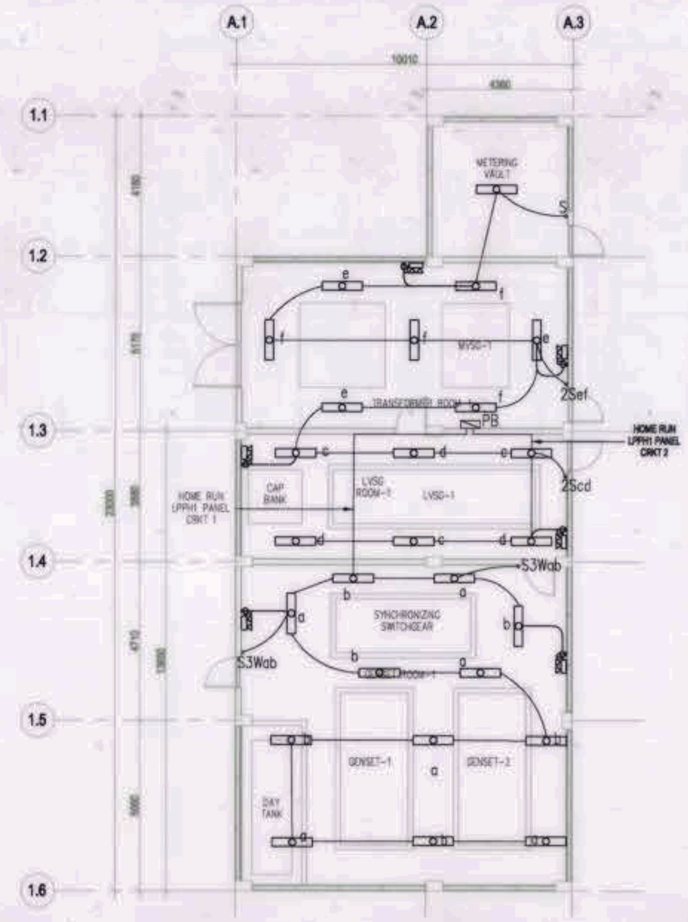


1 EE-12 ROOF PLAN LIGHTNING PROTECTION SYSTEM LAYOUT

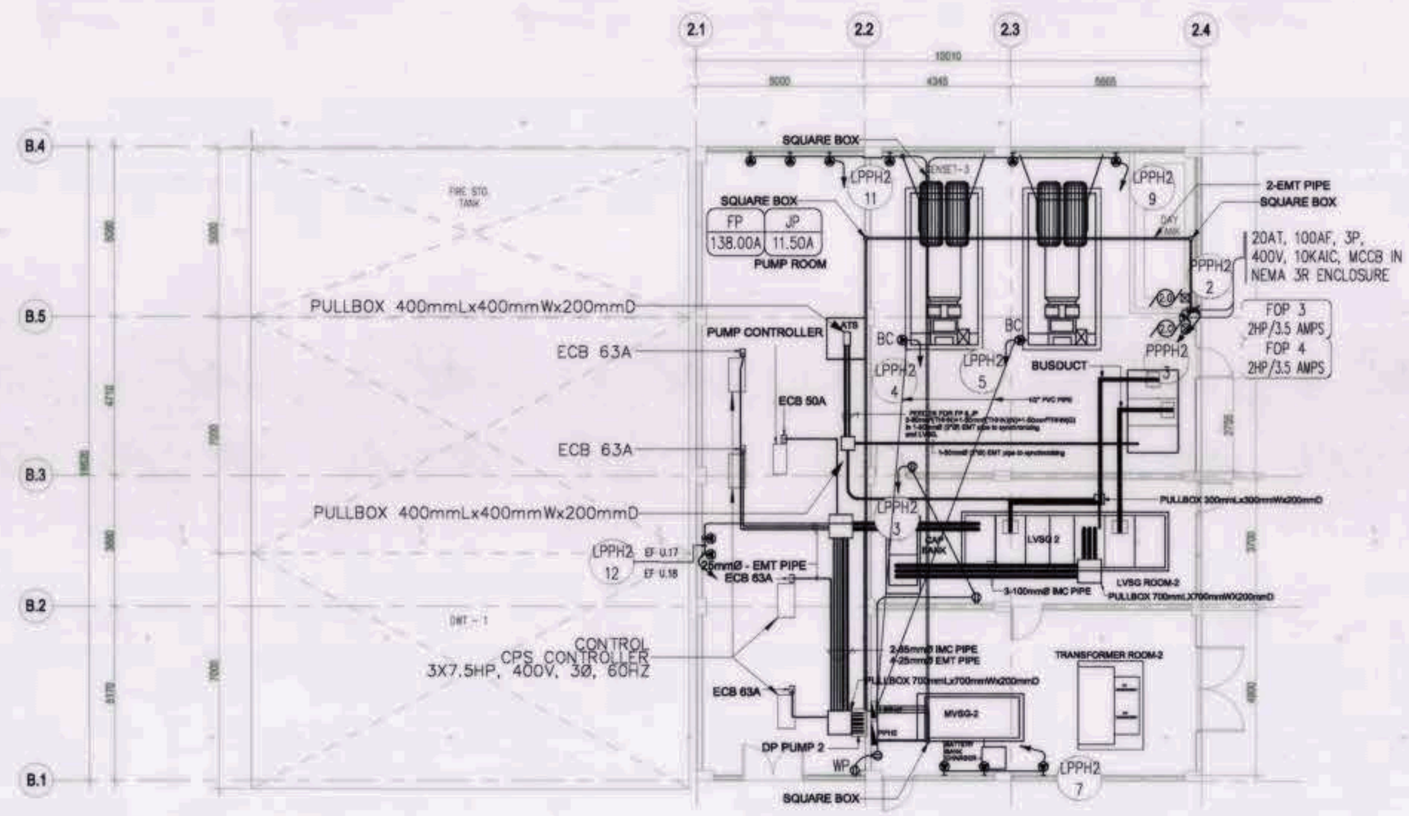
SCALE: 1:500M

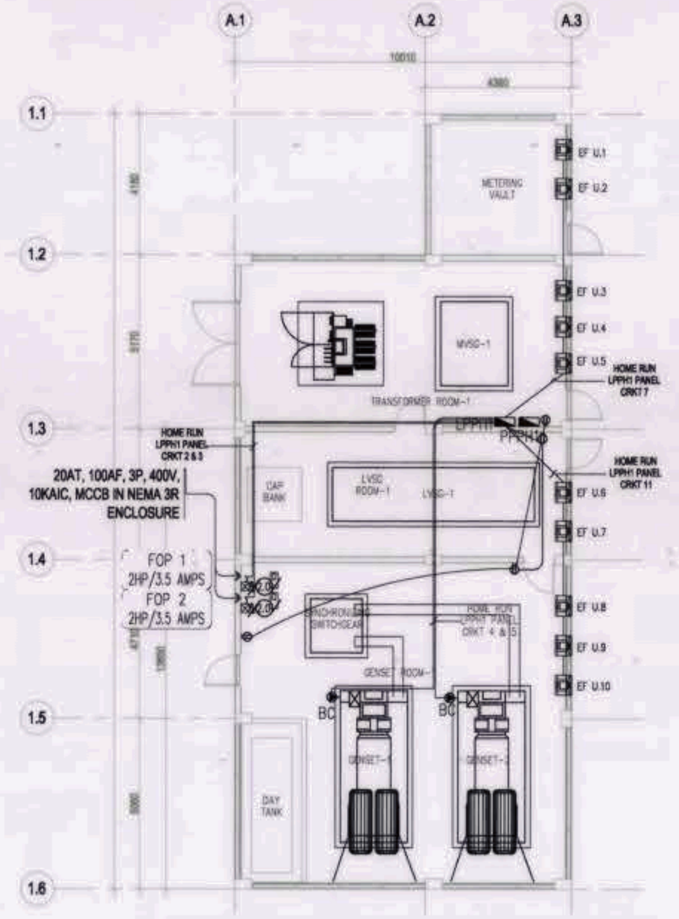
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON PRESIDENT PATRICK NICHOLAS P. DAVID PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	ROOF PLAN LIGHTNING PROTECTION SYSTEM LAYOUT	EE-12





1 EE-13 POWER HOUSE LIGHTING SYSTEM LAYOUT
SCALE: 1:125M





2 EE-13 POWER HOUSE POWER SYSTEM LAYOUT
SCALE: 1:125M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Philippines VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	POWER HOUSE LIGHTING SYSTEM LAYOUT POWER HOUSE POWER SYSTEM LAYOUT	EE-13

PANEL "SUPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: 1ST FLOOR WEST

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	SUPW	400	41.59	40.92	44.22	100	100	3	30	MCCB	10		
2	SPPW	400	14.4	14.4	13.87	30	100	3	30	MCCB	10		
			81.99	81.48	78.77	0.00							

L = 81.42 + (0.25)(3.33) = 87.42 AMPS
USE: 175 A
MAIN: 1.2(40.5)SDAF, 3P, 50KAIC

PANEL "CLPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: SECOND FLOOR WEST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1000	4.35				30	45	1	10	MCCB	WSJ
2	LIGHTS	400/230	1000		4.35			30	45	1	10	MCCB	WSJ
3	LIGHTS	400/230	1000			4.35		30	45	1	10	MCCB	WSJ
4	LIGHTS	400/230	1000	4.35				30	45	1	10	MCCB	WSJ
5	LIGHTS	400/230	1000		4.35			30	45	1	10	MCCB	WSJ
6	LIGHTS	400/230	1000			4.35		30	45	1	10	MCCB	WSJ
7	LIGHTS	400/230	1000	4.35				30	45	1	10	MCCB	WSJ
8	LIGHTS	400/230	1000		4.35			30	45	1	10	MCCB	WSJ
9	LIGHTS	400/230	1000			4.35		30	45	1	10	MCCB	WSJ
10	CONVENIENCE OUTLET	400/230	1000	4.35				30	45	1	10	MCCB	WSJ
11	CONVENIENCE OUTLET	400/230	1000		4.35			30	45	1	10	MCCB	WSJ
12	CONVENIENCE OUTLET	400/230	1000			4.35		30	45	1	10	MCCB	WSJ
13	CONVENIENCE OUTLET	400/230	1000	4.35				30	45	1	10	MCCB	WSJ
14	CONVENIENCE OUTLET	400/230	1000		4.35			30	45	1	10	MCCB	WSJ
15	CONVENIENCE OUTLET	400/230	1000			4.35		30	45	1	10	MCCB	WSJ
16	CONVENIENCE OUTLET	400/230	1000	4.35				30	45	1	10	MCCB	WSJ
17	CONVENIENCE OUTLET	400/230	1000		4.35			30	45	1	10	MCCB	WSJ
18	CONVENIENCE OUTLET	400/230	1000			4.35		30	45	1	10	MCCB	WSJ
19	CONVENIENCE OUTLET	400/230	1000	4.35				30	45	1	10	MCCB	WSJ
20	CONVENIENCE OUTLET	400/230	1000		4.35			30	45	1	10	MCCB	WSJ
21	CONVENIENCE OUTLET	400/230	1000			4.35		30	45	1	10	MCCB	WSJ
22	HAND DRYER	400/230	1000	4.35				30	45	1	10	MCCB	WSJ
23	HAND DRYER	400/230	1000		4.35			30	45	1	10	MCCB	WSJ
24	CONVENIENCE OUTLET(SAFA RACE)	400/230	1000			4.35		30	45	1	10	MCCB	WSJ
25	SPARE	400/230	1000	4.35				30	45	1	10	MCCB	12mmØC
26	SPARE	400/230	1000		4.35			30	45	1	10	MCCB	12mmØC
27	SPARE	400/230	1000			4.35		30	45	1	10	MCCB	12mmØC
28	SPARE	400/230	1000	4.35				30	45	1	10	MCCB	12mmØC
29	SPARE	400/230	1000		4.35			30	45	1	10	MCCB	12mmØC
30	SPARE	400/230	1000			4.35		30	45	1	10	MCCB	12mmØC
				48.65	48.92	39.09	0.00						

L = 68.33 AMPS
USE: 100
MAIN: 100A(1)SDAF, 3P, 50KAIC MCCB

PANEL "SPPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: SECOND FLOOR WEST SW ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
2	LIGHTS	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
3	LIGHTS	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
4	LIGHTS	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
5	LIGHTS	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
6	LIGHTS	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
7	LIGHTS	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
8	LIGHTS	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
9	LIGHTS	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
10	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
11	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
12	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
13	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
14	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
15	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
16	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
17	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
18	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
19	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
20	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
21	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
22	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
23	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
24	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
				39.43	39.43	39.09	0.00						

L = 39.44 + (0.25)(1.33) = 39.77 AMPS
USE: 100
MAIN: 100A(1)SDAF, 3P, 50KAIC MCCB

PANEL "SPPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: THIRD FLOOR WEST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
2	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
3	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
4	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
5	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
6	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
7	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
8	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
9	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
10	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
11	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
12	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
13	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
14	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
15	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
16	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
17	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
18	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
19	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
20	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
21	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
22	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
23	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
24	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
				39.43	39.43	39.09	0.00						

L = 39.44 + (0.25)(3.33) = 40.66 AMPS
USE: 175 A
MAIN: 2(40)SDAF, 3P, 50KAIC MCCB

PANEL "SUPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: THIRD FLOOR WEST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
2	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
3	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
4	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
5	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
6	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
7	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
8	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
9	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
10	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
11	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
12	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
13	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
14	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
15	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
16	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
17	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
18	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
19	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
20	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
21	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
22	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
23	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
24	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
				39.43	39.43	39.09	0.00						

L = 39.44 + (0.25)(3.33) = 40.66 AMPS
USE: 175 A
MAIN: 2(40)SDAF, 3P, 50KAIC MCCB

PANEL "SUPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: 1ST FLOOR WEST STORAGE

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
2	REFRIGERATOR	400/230	600	5.17				30	45	1	10	MCCB	WSJ
3	CONVENIENCE OUTLET				4.68			30	45	1	10	MCCB	WSJ
4	SPARE				4.68			30	45	1	10	MCCB	12mmØC
5	SPARE					4.68		30	45	1	10	MCCB	12mmØC
6	SPARE						4.68	30	45	1	10	MCCB	12mmØC
				9.85	13.04	13.04	0.00						

L = 15.04 AMPS
USE: 16 A
MAIN: 30AT, 1SDAF, 3P, 50KAIC CB

PANEL "PPPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: POWER HOUSE 1

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LPPW	400/230	80.19	89.97	84.97	80	80	3	55	MCCB	18kA		
2	FDP 1 / FDP 2	400/230				3.8	30	45	3	10	MCCB	22kA	
3	SPARE	400/230					3.8	30	45	3	10	MCCB	22kA
4	SPACE	400/230											
5	SPARE	400/230					10	30	45	3	10	MCCB	30mmØC
				89.17	89.97	84.97	17.60						

L = 54.57 + 17.05 + 3285(1.25) = 82.19 AMPS
USE: 110
MAIN: 80AT(1)SDAF, 3P, 50KAIC MCCB

PANEL "SUPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: 2ND FLOOR WEST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	LIGHTS	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
2	LIGHTS	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
3	LIGHTS	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
4	LIGHTS	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
5	LIGHTS	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
6	LIGHTS	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
7	LIGHTS	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
8	LIGHTS	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
9	LIGHTS	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
10	CONVENIENCE OUTLET	400/230	800	3.48				30	45	1	10	MCCB	WSJ
11	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	12mmØC
12	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	12mmØC
13	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	12mmØC
14	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	12mmØC
15	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	12mmØC
16	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	12mmØC
17	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	12mmØC
18	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	12mmØC
19	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	12mmØC
20	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	12mmØC
21	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	12mmØC
22	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	12mmØC
23	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	12mmØC
24	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	12mmØC
				55.17	55.17	55.17	0.00						

L = 55.17 AMPS
USE: 110
MAIN: 80AT(1)SDAF, 3P, 50KAIC MCCB

PANEL "SPPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: THIRD FLOOR WEST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
2	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
3	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
4	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
5	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
6	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
7	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
8	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
9	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
10	CONVENIENCE OUTLET	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
11	CONVENIENCE OUTLET	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
12	CONVENIENCE OUTLET	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
13	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
14	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
15	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
16	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
17	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
18	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
19	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
20	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
21	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
22	SPARE	400/230	1000	4.68				30	45	1	10	MCCB	WSJ
23	SPARE	400/230	1000		4.68			30	45	1	10	MCCB	WSJ
24	SPARE	400/230	1000			4.68		30	45	1	10	MCCB	WSJ
				39.43	39.43	39.09	0.00						

L = 39.44 + (0.25)(3.33) = 40.66 AMPS
USE: 175 A
MAIN: 2(40)SDAF, 3P, 50KAIC MCCB

PANEL "SPPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: GROUND FLOOR SOUTHEAST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	AUH	400		70.71	70.71	70.71	5.00	800	800	3	50	MCCB	5Y300
2	SPPW	400		90.12	90.13	90.13	0.00	400	400	3	50	MCCB	7Y250
3	SPPW	400		52.172	52.172	52.172	0.00	150	150	3	50	MCCB	Y14
4	MEGA OFFICE	400		44.7	41.97	41.97	0.00	150	150	3	50	MCCB	Y14
5	DPPW1	400		57.979	58.499	57.979	5.62	150	150	3	50	MCCB	Y14
6	WPH1	400		35.17	29.27	34.27	4.68	150	150	3	50	MCCB	Y14
7	GLPW1	400		55.148	53.148	53.148	0.00	80	150	3	50	MCCB	Y14
8	SPARE	400						80	150	3	50	MCCB	Y14
				391.12	1365.07	1345.46	21.70						

L = 24.72 + 1365.07 / 1.732 x 0.8 = 1024.01 AMPS
USE: 1 #370 OF 4-600mm2(Al) + 1-185mm2(Al) + 1-185mm2(Al) IN 1000 PVC PIPE IN CONCRETE CASEMENT
MAIN: 1250A(1)SDAF, 3P, 65KAIC MCCB

PANEL "DPPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: SE ROOM NORTHWEST

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	AUW	400		70.71	70.71	70.71	5.00	800	800	3	50	MCCB	5Y300
2	NORTHWEST VIDEO WALL	400		90.12	90.13	90.13	0.00	400	400	3	50	MCCB	2(4)0
3	SPACE			111.14	111.14	111.14		250	250	3	50	MCCB	Y38
4	SPACE			-	-	-	-	-	-	-	-	-	-
5	DPPW1	400		45.21	39.49	43.873	5.00	100	100	3	50	MCCB	Y25
6	GLPW	400		53.148	53.148	53.148	0.00	80	100	3	50	MCCB	Y14
7	TECH OFFICE	400		42.48	39.48	3.48	0.00	100	100	3	50	MCCB	Y14
8	SPPW(R)	400		30	10	0		11.30	45	100	3	50	MCCB	2(5)0
				391.77	1377.43	1310.14	14.70						

L = 14.70 + 1911.77 / 1.732 x 0.8 = 1292.77 AMPS
USE: 2 #370 OF 4-600mm2(Al) + 1-185mm2(Al) IN 1000 PVC PIPE IN CONCRETE CASEMENT
MAIN: 1150A(1)SDAF, 3P, 65KAIC

PANEL "CPPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: POWER HOUSE 2

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	UPHE	400/230		34.27	34.27	37.24		50	45	3	50	MCCB	Y8.5
2	SPACE	-	-	-	-	-	-	-	-	-	-	-	-
3	TOP 5	400/230					5.5	30	45	3	10	MCCB	2(3.5
4	TOP 4	400/230					5.2	30	45	3	10	MCCB	2(3.5
5	SPACE	-	-	-	-	-	-	-	-	-	-	-	-
6	SPARE	400/230					0	30	45	3	10	MCCB	30mmØC
				34.27	34.27	37.24	17.00						

L = 37.24 + 17.00 = 3285(1.25) = 23.72 AMPS
USE: 110 A
MAIN: 80AT(1)SDAF, 3P, 50KAIC MCCB

PANEL "PPPW"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL BUS

LOCATION: TOILED ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPER E	AMPERE LOAD @AH	@BH	@CH	@AHC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	EQUIPMENT	400/230	6530	24.20				60	60	1	10	MCCB	5Y CR150
2	EQUIPMENT	400/230	6530	24.20

PANEL: "GDHU"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL

LOCATION: GROUND FLOOR WEST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE S	AMPERE LOAD @4kV	@8kV	@12kV	@CH	@ADC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	UDH15	400/230V	1500	4.59					30	40	1	10	MCCB	25.0
2	UDH15	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
3	UDH15 AND 5.7 OF 15	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
4	UDH15	400/230V	1500		4.63				30	40	1	10	MCCB	W3.0
5	UDH15	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
6	UDH15	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
7	UDH15	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
8	UDH15	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
9	UDH15	400/230V	1500		4.55				30	40	1	10	MCCB	W3.0
10	UDH15	400/230V	1500		4.59				30	40	1	10	MCCB	W3.0
11	UDH15	400/230V	1500			4.59			30	40	1	10	MCCB	W3.0
12	UDH15	400/230V	1500			4.62			30	40	1	10	MCCB	W3.0
13	UDH15	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
14	UDH15	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
15	UDH15	400/230V	1500		4.59				30	40	1	10	MCCB	W3.0
16	UDH15	400/230V	1500		4.63				30	40	1	10	MCCB	W3.0
17	UDH15	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
18	UDH15	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
19	STAIR LIGHTS	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
20	STAIR LIGHTS	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
21	UDH15	400/230V	1500		4.52				30	40	1	10	MCCB	W3.0
22	HAND DRYER	400/230V	1500		4.55				30	40	1	10	MCCB	W3.0
23	HAND DRYER	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
24	HAND DRYER	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
				50.17	50.17	50.17	0.00							

I = 65.17 AMPS
USE: 1"H
MAIN: 65A/3/150AF, 3P, 35KAIC MCCB

PANEL: "GPWH"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL

LOCATION: GROUND FLOOR WEST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE S	AMPERE LOAD @4kV	@8kV	@12kV	@CH	@ADC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	CONVENIENCE OUTLET	400/230V	1500				2.0		30	40	1	10	MCCB	W3.0
2	CONVENIENCE OUTLET	400/230V	1500				4.62		30	40	1	10	MCCB	W3.0
3	CONVENIENCE OUTLET	400/230V	1500				4.63		30	40	1	10	MCCB	W3.0
4	CONVENIENCE OUTLET	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
5	CONVENIENCE OUTLET	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
6	CONVENIENCE OUTLET	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
7	CONVENIENCE OUTLET	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
8	CONVENIENCE OUTLET	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
9	CONVENIENCE OUTLET	400/230V	1500				4.63		30	40	1	10	MCCB	W3.0
10	CONVENIENCE OUTLET	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
11	CONVENIENCE OUTLET	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
12	CONVENIENCE OUTLET	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
13	CONVENIENCE OUTLET	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
14	CONVENIENCE OUTLET	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
15	CONVENIENCE OUTLET	400/230V	1500		4.63				30	40	1	10	MCCB	W3.0
16	CONVENIENCE OUTLET	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
17	CONVENIENCE OUTLET	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
18	CONVENIENCE OUTLET	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
19	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
20	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
21	PROVISION FOR CONVERSION AREA	400/230V	2000		10				30	40	1	10	MCCB	19mmdiaC
22	PROVISION FOR CONVERSION AREA	400/230V	2000		10				30	40	1	10	MCCB	19mmdiaC
23	PROVISION FOR CONVERSION AREA	400/230V	2000			10			30	40	1	10	MCCB	19mmdiaC
24	PROVISION FOR CONVERSION AREA	400/230V	2000			10			30	40	1	10	MCCB	19mmdiaC
25	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
26	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
27	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
28	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
29	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
30	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
31	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
32	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
33	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
34	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
35	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
36	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
37	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
38	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
39	PROVISION FOR CONVERSION AREA	400/230V	2000	10					30	40	1	10	MCCB	19mmdiaC
40	HAND DRYER	400/230V	1500			4.62			30	40	1	10	MCCB	W3.0
41	HAND DRYER	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
42	SPARE	400/230V	1500				4.63		30	40	1	10	MCCB	19mmdiaC
				110.17	109.31	115.17	6.93							

I = 113.17 AMPS
USE: 1"H
MAIN: 150A/3/150AF, 3P, 35KAIC MCCB

PANEL: "GPWH"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL

LOCATION: 1S ROOM -WEST

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE S	AMPERE LOAD @4kV	@8kV	@12kV	@CH	@ADC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	SPARE	400/230V	1500					3.4	30	100	3	35	MCCB	19mmdiaC
2	SPARE	400/230V	1500					3.4	30	100	3	35	MCCB	19mmdiaC
3	TAP CR 3	400/230V	1500					4.8	30	100	3	35	MCCB	W3.5
4	TAP CR 4	400/230V	1500					4.8	30	100	3	35	MCCB	W3.5
5	TAP CR 5	400/230V	1500					4.8	30	100	3	35	MCCB	W3.5
6	TAP CR 6	400/230V	1500					4.8	30	100	3	35	MCCB	W3.5
7	TAP CR 7	400/230V	1500					4.8	30	100	3	35	MCCB	W3.5
8	ST CR 4	400/230V	1500					4.8	30	100	3	35	MCCB	W3.5
9	ST CR 7	400/230V	1500					4.8	30	100	3	35	MCCB	W3.5
10	ST CR 8	400/230V	1500					4.8	30	100	3	35	MCCB	W3.5
11	ST CR 9	400/230V	1500					4.8	30	100	3	35	MCCB	W3.5
12	TAP CR 8	400/230V	1500					4.8	30	100	3	35	MCCB	W3.5
13	FAN FA1,4,A,S, & ST CF.11	400/230V	1500	4.63					30	100	3	35	MCCB	W3.5
14	FCU CF.D,1,10F.D,3 & FCU CF.C,1,C,3	400/230V	1500			4.13			30	100	3	35	MCCB	W3.5
15	FCU CF.9,1 - CF.5,5	400/230V	1500	1.65					30	100	3	35	MCCB	W3.5
16	FAN CF.6 & ST CF.17	400/230V	1500	1.78					30	100	3	35	MCCB	W3.5
17	CLWP - ELEVATOR PIT PUMP	400/230V	1500		4.9				30	100	3	35	MCCB	W3.5
18	FCU CF.A,1-CF.A,11	400/230V	1500	2.39					30	100	3	35	MCCB	W3.5
19	EWH PUMP (DL 4))	400/230V	3000			4.62			30	100	3	35	MCCB	W3.5
20	FCU (PCC)	400/230V	3000			4.65			30	100	3	35	MCCB	19.0
21	EWH PUMP (DL 4B)	400/230V	3000	4.60					30	100	3	35	MCCB	19.0
22	SPARE	400/230V	3000	4.62					30	100	3	35	MCCB	19mmdiaC
23	SPARE	400/230V	3000		4.65				30	100	3	35	MCCB	19mmdiaC
24	SPARE	400/230V	3000			4.65			30	100	3	35	MCCB	19mmdiaC
25	SPARE	400/230V	3000			4.65			30	100	3	35	MCCB	19mmdiaC
26	EWH PUMP (DL 4B)	400/230V	3000		4.62				30	100	3	35	MCCB	W3.5
				15.05	26.29	54.09	75.20							

I = 1206.81 + 75.20 + 2(256.8)+3)+3*60)* = 75.20 AMPS
USE: 1"H
MAIN: 80A/3/150AF, 40EV , 3P, 35KAIC MCCB

PANEL: "GPWH"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL

LOCATION: GROUND FLOOR NORTHEAST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE S	AMPERE LOAD @4kV	@8kV	@12kV	@CH	@ADC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	CONVENIENCE OUTLET	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
2	HAND DRYER	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
3	SPARE	400/230V	1500		4.63				30	40	1	10	MCCB	W3.0
4	SPARE	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
5	HAND DRYER	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
6	HAND DRYER	400/230V	1500		4.63				30	40	1	10	MCCB	W3.0
7	CONVENIENCE OUTLET	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
8	HAND DRYER	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
9	HAND DRYER	400/230V	1500		4.63				30	40	1	10	MCCB	W3.0
10	SPARE	400/230V	1500			4.63			30	40	1	10	MCCB	W3.0
11	TSF CF.3	400/230V	1500				4.63		30	40	1	10	MCCB	W3.0
12	TSF CF.P	400/230V	459				1.87		30	40	1	10	MCCB	W3.0
13	PROVISION FOR CONVERSION AREA	400/230V	459	1.87					30	40	1	10	MCCB	W3.0
14	CONVENIENCE OUTLET DATA PT	400/230V	1500	4.62					30	40	1	10	MCCB	19mmdiaC
15	PROVISION FOR CONVERSION AREA	400/230V	1500			4.63			30	40	1	10	MCCB	19mmdiaC
16	PROVISION FOR CONVERSION AREA	400/230V	1500				4.63		30	40	1	10	MCCB	19mmdiaC
17	PROVISION FOR CONVERSION AREA	400/230V	1500					4.63	30	40	1	10	MCCB	19mmdiaC
18	PROVISION FOR CONVERSION AREA	400/230V	1500					4.63	30	40	1	10	MCCB	19mmdiaC
19	CONVENIENCE OUTLET DATA PT	400/230V	1500				4.63		30	40	1	10	MCCB	19mmdiaC
20	ST STORAGE	400/230V	1500					4.63	30	40	3	10	MCCB	W3.0
21	ST STORAGE	400/230V	1500					4.63	30	40	3	10	MCCB	W3.0
22	PROVISION FOR CONVERSION AREA	400/230V	1500		10.00				30	40	1	10	MCCB	19mmdiaC
23	PROVISION FOR CONVERSION AREA	400/230V	1500		10.00				30	40	1	10	MCCB	19mmdiaC
24	PROVISION FOR CONVERSION AREA	400/230V	1500			10.00			30	40	1	10	MCCB	19mmdiaC
25	PROVISION FOR CONVERSION AREA	400/230V	1500			10.00			30	40	1	10	MCCB	19mmdiaC
26	PROVISION FOR CONVERSION AREA	400/230V	1500	10.00					30	40	1	10	MCCB	19mmdiaC
27	PROVISION FOR CONVERSION AREA	400/230V	1500	10.00					30	40	1	10	MCCB	19mmdiaC
28	PROVISION FOR CONVERSION AREA	400/230V	1500		10.00				30	40	1	10	MCCB	19mmdiaC
29	PROVISION FOR CONVERSION AREA	400/230V	1500			10.00			30	40	1	10	MCCB	19mmdiaC
30	PROVISION FOR CONVERSION AREA	400/230V	1500	12.00					30	40	1	10	MCCB	19mmdiaC
31	SPARE	400/230V	1500		10.00				30	40	1	10	MCCB	19mmdiaC
32	SPARE	400/230V	1500			10.00			30	40	1	10	MCCB	19mmdiaC
33	SPARE	400/230V	1500				4.63		30	40	1	10	MCCB	19mmdiaC
34	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	19mmdiaC
35	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	19mmdiaC
36	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	19mmdiaC
				79.13	99.13	62.67	13.40							

I = [(79.13 + 13.40)/480]*1 = 199.53 AMPS
USE: 1"H
MAIN: 200A/3/150AF, 3P, 35KAIC MCCB

PANEL: "GPWH"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL

LOCATION: GROUND FLOOR SOUTHWEST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE S	AMPERE LOAD @4kV	@8kV	@12kV	@CH	@ADC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	CONVENIENCE OUTLET	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
2	CONVENIENCE OUTLET	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
3	HAND DRYER	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
4	HAND DRYER	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
5	HAND DRYER	400/230V	1500			4.62			30	40	1	10	MCCB	W3.0
6	SPARE	400/230V	1500				4.62		30	40	1	10	MCCB	W3.0
7	SPARE	400/230V	1500	4.63					30	40	1	10	MCCB	W3.0
8	HAND DRYER	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
9	HAND DRYER	400/230V	1500			4.62			30	40	1	10	MCCB	W3.0
10	HAND DRYER	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
11	SPARE	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
12	SPARE	400/230V	1500			4.62			30	40	1	10	MCCB	W3.0
13	TSF CF.5	400/230V	1500				4.62		30	40	1	10	MCCB	W3.0
14	SPARE	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
15	SPARE	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
16	SPARE	400/230V	1500			4.62			30	40	1	10	MCCB	W3.0
				65.07	69.75	47.67	9.25							

I = [(65.07 + 9.25) + (2(65.5)(.6)(480))^2]^0.5 = 154.4 AMPS
USE: 1"H
MAIN: 150A/3/150AF, 3P, 35KAIC MCCB

PANEL: "GPWH"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL

LOCATION: GROUND FLOOR NORTHWEST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE S	AMPERE LOAD @4kV	@8kV	@12kV	@CH	@ADC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	FWD LIFT	400	5000				7.21		30	40	3	10	MCCB	25.0
2	TSF CR 1	400	3400				5.80		30	40	3	10	MCCB	25.0
3	SPARE	400	4300	10.00					30	40	3	10	MCCB	25.0
4	SPARE	400	5000	10.00					30	40	3	10	MCCB	25.0
				20.00	0.00	0.00	11.30							

I = [(20^2 + 11.30^2)^0.5]/(0.7)(0.9) = 34.5 AMPS
USE: 1"H
MAIN: 40A/3/150AF, 3P, 35KAIC MCCB

PANEL: "GPWH"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL

LOCATION: GROUND FLOOR SOUTHEAST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE S	AMPERE LOAD @4kV	@8kV	@12kV	@CH	@ADC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	CONVENIENCE OUTLET	400/230V	1500	4.63					30	40	1	10	MCCB	19mmdiaC
2	HAND DRYER	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
3	HAND DRYER	400/230V	1500			4.62			30	40	1	10	MCCB	W3.0
4	CONVENIENCE OUTLET (DATA PT)	400/230V	1500				4.62		30	40	1	10	MCCB	W3.0
5	HAND DRYER	400/230V	1500					4.62	30	40	1	10	MCCB	W3.0
6	CONVENIENCE OUTLET	400/230V	1500				4.62		30	40	1	10	MCCB	W3.0
7	SPARE	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
8	HAND DRYER	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
9	HAND DRYER	400/230V	1500			4.62			30	40	1	10	MCCB	W3.0
10	HAND DRYER	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
11	SPARE	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
12	SPARE	400/230V	1500			4.62			30	40	1	10	MCCB	W3.0
13	TSF CF.4	400/230V	1500				4.62		30	40	1	10	MCCB	W3.0
14	SPARE	400/230V	1500	4.62					30	40	1	10	MCCB	W3.0
15	SPARE	400/230V	1500		4.62				30	40	1	10	MCCB	W3.0
16	SPARE	400/230V	1500			4.62			30	40	1	10	MCCB	W3.0
				36.96	36.96	36.96	9.24							

I = 391.13 AMPS
USE: 1"H
MAIN: 400A/3/150AF, 3P , 35KAIC

PANEL: "GPWH"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL

LOCATION: GROUND FLOOR SOUTHWEST SE ROOM

CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE S	AMPERE LOAD @4kV	@8kV	@12kV	@CH	@ADC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	CONVENIENCE OUTLET	400/230V	1500				4.63		30	40	1	10	MCCB	W3.0
2	HAND DRYER	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
3	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
4	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
5	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
6	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
7	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
8	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
9	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
10	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
11	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
12	SPARE	400/230V	1500					4.63	30	40	1	10	MCCB	W3.0
13	SUMP PUMP (PUMP)	400	5000		14	14	14							
					343.34	343.34	343.34	0.00						

I = 343.34 + [(28.5 * 14)/480)]^2)^0.5 = 345.48 AMPS
USE: 1"H2
MAIN: 400A/3/150AF, 3P , 35KAIC

PANEL: "G-C"

MOUNTING: NEMA 1, SURFACE MOUNTED WITH GRAY POWDERED PAINT FINISH WITH MULTI-TERMINAL BUS BLOCK FOR SOLID GROUND AND NEUTRAL

LOCATION: (FLOOD LIGHTS FOR COMPETITION AREA)

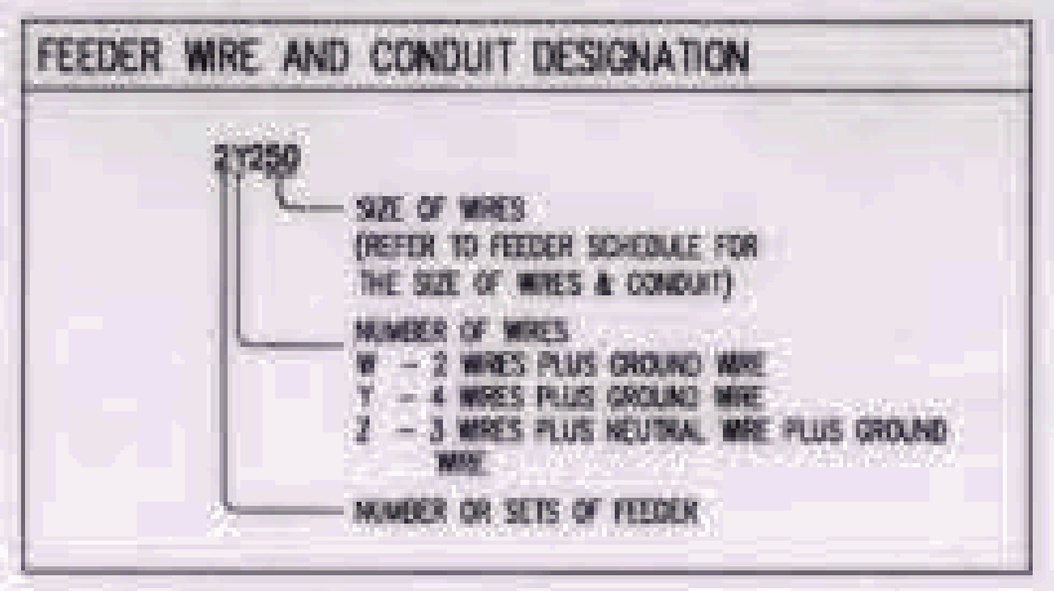
CKT. NO.	LOAD DESCRIPTION	VOLT	VOLT AMPERE S	AMPERE LOAD @4kV	@8kV	@12kV	@CH	@ADC	AT	AF	P	KAIC	TYPE	NUMBER & SIZE OF WIRE & CONDUIT
1	6T2-475	400/230V	3840	14.70					30	80	1	10	MCCB	19mmdiaC
2	6T1-560	400/230V	3840	14.70					30	80	1	10	MCCB	W5.0
3	3B1-564	400/230V	3840		14.70				30	80	1	10	MCCB	W5.0
4	3B2-466	400/230V	3840		14.70				30	80	1	10	MCCB	W5.0
5	3B1-483	400/230V	3840			39.67			30	80	1	10	MCCB	W5.0
6	6T4-457	400/230V	3840			14.70			30	80	1	10	MCCB	W5.0
7	6T6-458	400/230V	3840	14.70					30	80	1	10	MCCB	W5.0
8	6T2-6103	400/230V	3840	14.70					30	80	1	10	MCCB	W5.0
9	6T2-6109	400/230V	3840			14.70			30	80	1	10	MCCB	19mmdiaC
10	15A, 15A, 15T, 15B	400/230V	3840			14.70			30	80	1	10	MCCB	W5.0
11	12P-152	400/230V	4800				20.67		30	80	1	10	MCCB	W5.0
12	3P-MS	400/230V	1200				5.17		30	80	1	10	MCCB	W5.0
13	V3B-V31	400/230V	3840	14.70					30	80	1	10	MCCB	W5.0
14	V3S-V32	400/230V	4800	20.67					30	80	1	10	MCCB	W5.0
15	V3A-V33	400/230V	3840		14.70				30	80	1	10	MCCB	W5.0
16	V4B-V41	400/230V	3960			13.02			30	80	1	10	MCCB	19mmdiaC
17	LCP-C (LOCAL CONTROL PANEL)	400/230V	30				0.11		30	80	1	10	MCCB	W5.0
18	SPARE								30	80	1	10	MCCB	19mmdiaC

FEEDER SCHEDULE FOR COPPER THHN/THWN

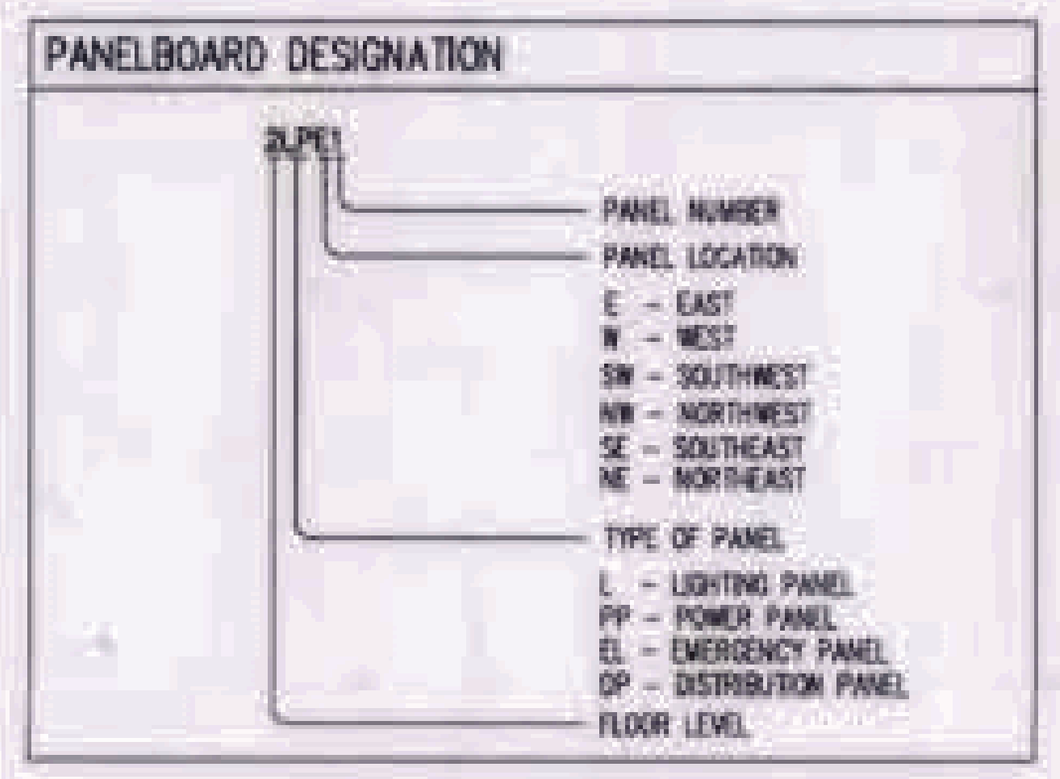
FEEDER	WIRE / CABLE	CONDUIT
W3.5	2-3.5mm² & 1-3.5mm²	15mmø
W5.5	2-5.5mm² & 1-3.5mm²	15mmø
W8.0	2-8.0mm² & 1-5.5mm²	20mmø
W14	2-14mm² & 1-5.5mm²	20mmø
W22	2-22mm² & 1-8.0mm²	25mmø
Y3.5	4-3.5mm² & 1-3.5mm²	15mmø
Y5.5	4-5.5mm² & 1-5.5mm²	20mmø
Y8.0	4-8.0mm² & 1-5.5mm²	25mmø
Y14	4-14mm² & 1-5.5mm²	32mmø
Y22	4-22mm² & 1-8.0mm²	32mmø
Y30	4-30mm² & 1-8.0mm²	40mmø
Y38	4-38mm² & 1-14mm²	50mmø
Y50	4-50mm² & 1-14mm²	50mmø
Y60	4-60mm² & 1-14mm²	50mmø
Y80	4-80mm² & 1-14mm²	65mmø
Y100	4-100mm² & 1-22mm²	65mmø
Y125	4-125mm² & 1-22mm²	80mmø
Y150	4-150mm² & 1-30mm²	80mmø
Y200	4-200mm² & 1-30mm²	90mmø
Y250	4-250mm² & 1-30mm²	100mmø
Z3.5	3-3.5mm² & 1-3.5mm² & 1-3.5mm²	15mmø
Z5.5	3-5.5mm² & 1-5.5mm² & 1-5.5mm²	20mmø
Z8.0	3-8.0mm² & 1-5.5mm² & 1-5.5mm²	25mmø
Z14	3-14mm² & 1-8.0mm² & 1-8.0mm²	25mmø
Z22	3-22mm² & 1-8.0mm² & 1-8.0mm²	32mmø
Z30	3-30mm² & 1-14mm² & 1-14mm²	40mmø
Z38	3-38mm² & 1-14mm² & 1-14mm²	50mmø
Z50	3-50mm² & 1-14mm² & 1-14mm²	50mmø
Z60	3-60mm² & 1-14mm² & 1-14mm²	50mmø
Z80	3-80mm² & 1-14mm² & 1-14mm²	65mmø
Z100	3-100mm² & 1-22mm² & 1-22mm²	65mmø
Z125	3-125mm² & 1-22mm² & 1-22mm²	80mmø
Z150	3-150mm² & 1-30mm² & 1-30mm²	80mmø
Z200	3-200mm² & 1-30mm² & 1-30mm²	90mmø
Z250	3-250mm² & 1-30mm² & 1-30mm²	100mmø

NOTES:
1. FOR MULTIPLE SETS OF FEEDER, MINIMUM SIZE OF NEUTRAL WIRE ARE 50mm²; UNLESS OTHERWISE INDICATED.
2. CONDUIT SIZE INDICATES INNER DIAMETER.
3. EACH SET OF FEEDER OR PER CONTAINMENT ARE GROUND WIRE.

FEEDER WIRE AND CONDUIT DESIGNATION



PANELBOARD DESIGNATION



NOTES FOR METER CENTER

1. BREAKER AND BUSBAR GUTTER ARE HEAVY DUTY HINGE TYPE COVER AND SUPPORT.
2. USE MOLDED CASE CIRCUIT BREAKER FOR BREAKER GUTTER AND HAVE DEAD FRONT COVER WITH TAGGING AND LABELING.
3. BREAKER AND BUSBAR GUTTER ARE THE SAME LENGTH, WIDTH AND DEPTH.
4. LENGTH OF COLOR CODED BUSBAR ARE 75% OF GUTTER AND SHALL BE LAYERED. PROVIDE EXTRA HOLES WITH LUGS FOR FUTURE TERMINATION.
5. FEEDER AND CONDUIT SIZE FROM BREAKER TO BUSBAR GUTTER ARE SAME AS LOAD BEING SERVED. REFER TO METER CENTER SCHEDULE.

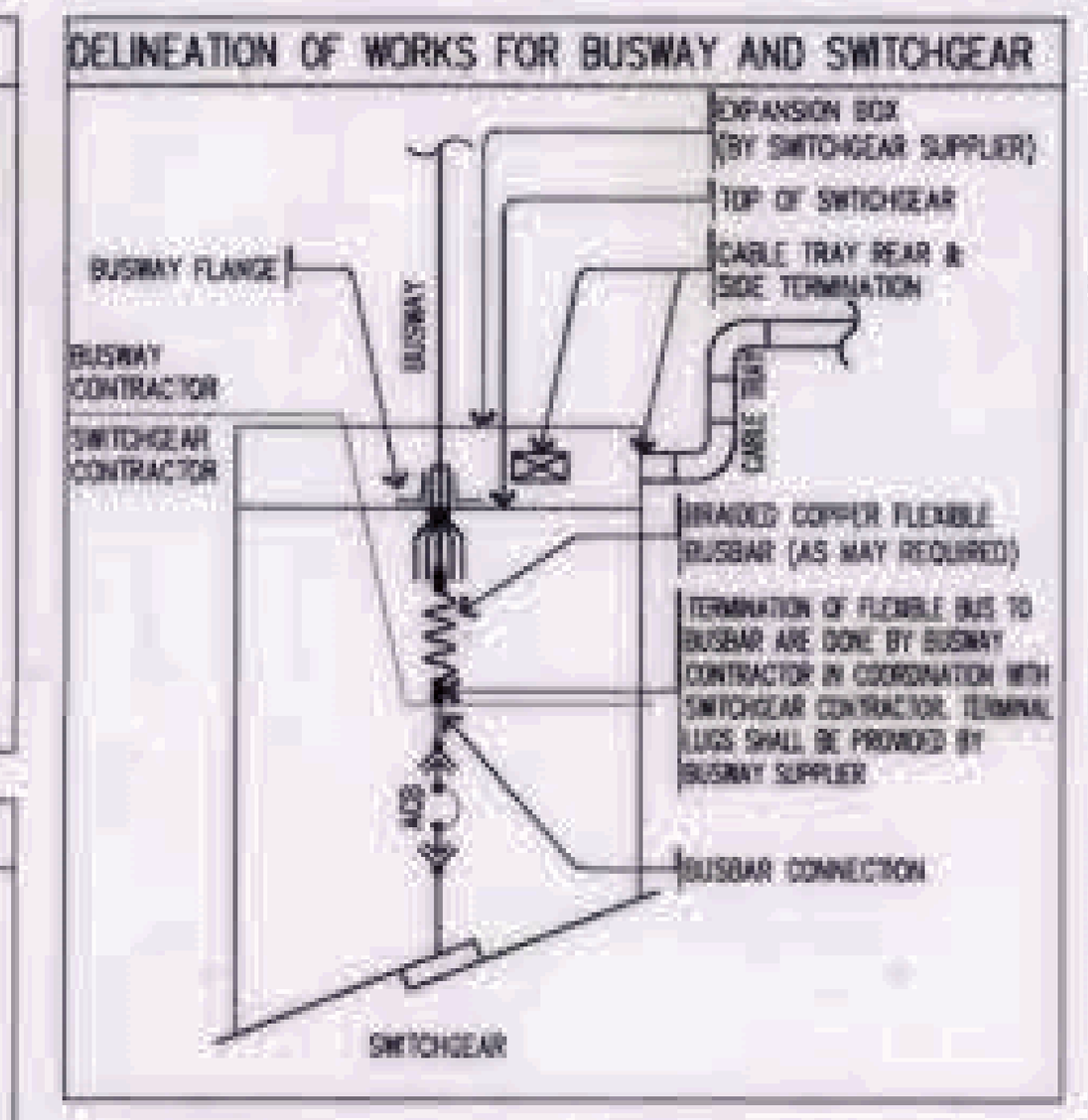
NOTES FOR EXPANSION BOX FOR TRANSFORMER

1. EXPANSION BOX ARE SAME DEPTH, HEIGHT, COLOR AND FINISH AS THE TRANSFORMER.
2. FRONT AND REAR OF EXPANSION BOX ARE PROVIDED WITH LOCKABLE SWING TYPE DOOR COVER.
3. FIX AND MOUNT THE EXPANSION BOX TO TRANSFORMER AND CONCRETE PAD. COORDINATE WITH TRANSFORMER SUPPLIER.
4. CABLE TERMINATION FROM TRANSFORMER TO BUSWAY ARE BOTTOM FEED THROUGH EXPANSION BOX. PROVIDE CABLE SUPPORT, TIE, ETC.

NOTES FOR ELEVATOR

1. ELEVATOR SUPPLIER TO ADAPT TO BUILDING SYSTEM VOLTAGE.
2. EQUIPMENT LIKE TVSS, AVR, ETC NEEDED FOR ELEVATOR TO OPERATE ARE PROVIDED BY THE ELEVATOR CONTRACTOR.

DELINEATION OF WORKS FOR BUSWAY AND SWITCHGEAR



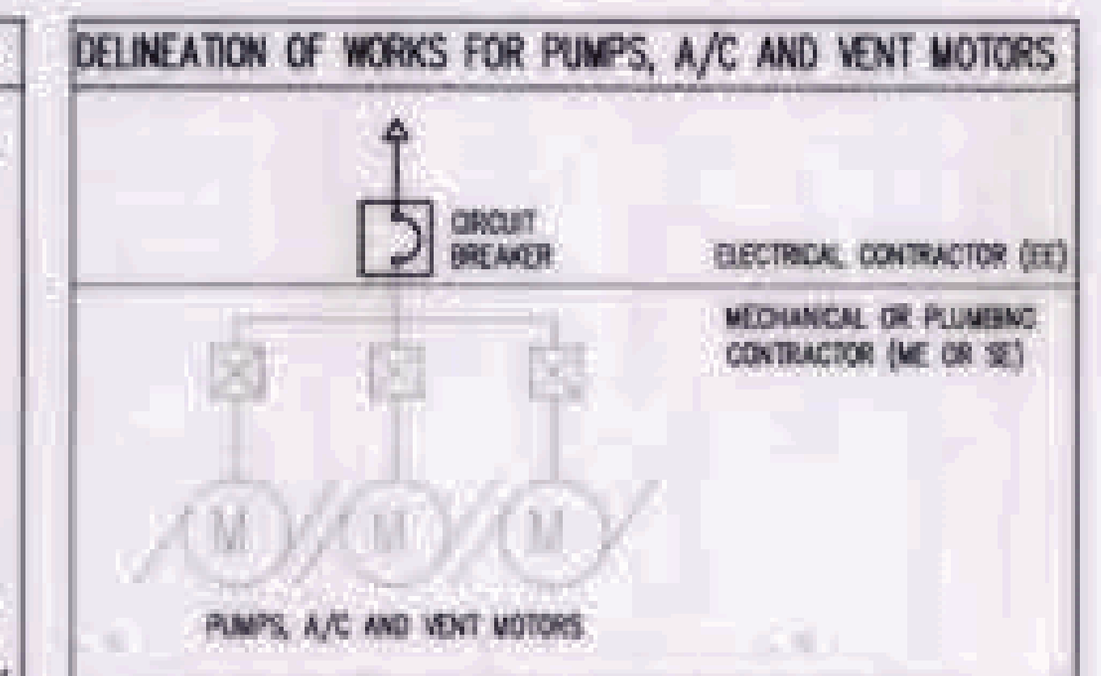
NOTES FOR BUSWAY

1. ALL BUSWAY RUN ARE IP54 (MIN.)
2. BUSWAY SUPPLIER/CONTRACTOR TO COORDINATE AND COMPLY WITH SWITCHGEAR SUPPLIER FOR PHASE SEQUENCE ARRANGEMENT CONNECTION REQUIREMENT.
3. BUSWAY FLANGE ARE PROPERLY ATTACHED TO SWITCHGEAR OR TRANSFORMER AND ARE MOUNTED ON TOP OF CUBICLE INTENDED FOR BUSWAY. PROVIDE BONDING WIRE.
4. BUSWAY CONNECTION TO SWITCHGEAR ARE SOLID BUSBAR. PROVIDE BRAIDED FLEXIBLE BUS AS REQUIRED.
5. ALL BUSWAY ARE PROVIDED WITH TAGGING AND LABELING
6. BUSWAY SUPPLIER/CONTRACTOR TO CONDUCT ACTUAL SITE MEASUREMENT AND COORDINATE WITH EE AND OTHER CONTRACTORS AND SECURE APPROVED SHOP DRAWING PRIOR TO BUSWAY FABRICATION.

NOTES FOR CABLE TRAY

1. ALL CABLE TRAY ARE LADDER TYPE, OPEN BOTTOM AND WITHOUT COVER.
2. USE BENDED RADIUS AND APPROPRIATE FITTINGS IN CONSIDERATION WITH MINIMUM BENDING RADIUS OF CABLE TO BE USED.
3. CABLE TRAY WIDTH OF 600mm AND ABOVE ARE MINIMUM THICKNESS OF 2.0mm, BELOW 600mm SHALL HAVE MINIMUM THICKNESS OF 1.50mm RESPECTIVELY.
4. MAXIMUM SPACING BETWEEN LADDER RUNG ARE 230mm CENTER TO CENTER. RUNG ARE SLOTTED AND WELDED.
5. LOW VOLTAGE CABLE ARRANGEMENT ARE QUADRANGLE, BUNDLED TOGETHER WITH CABLE TIE AND LABELING.
6. MAINTAIN MINIMUM CODE SPACING BETWEEN EACH SET OF CABLES.
7. ALL CABLES ARE CABLE TRAY "CT" RATED WITH SIZE AS INDICATED.
8. ALL CABLE TRAY INCLUDING THE SUPPORTED CABLES ARE PROVIDED WITH TAGGING AND LABELING AT EVERY 10 METERS OF HORIZONTAL RUN AND EVERY FLOOR OF VERTICAL RISERS.
9. CABLE TRAY SUPPORT ARE PROVIDED EVERY 1.5m.
10. CABLE TRAYS ARE NOT BE TERMINATED ON TOP OF SWITCHGEAR TO PREVENT ENTRY OF FOREIGN OBJECT. PROVIDE EXPANSION BOX.
11. SEE RELATED NOTES AT SWITCHGEAR.

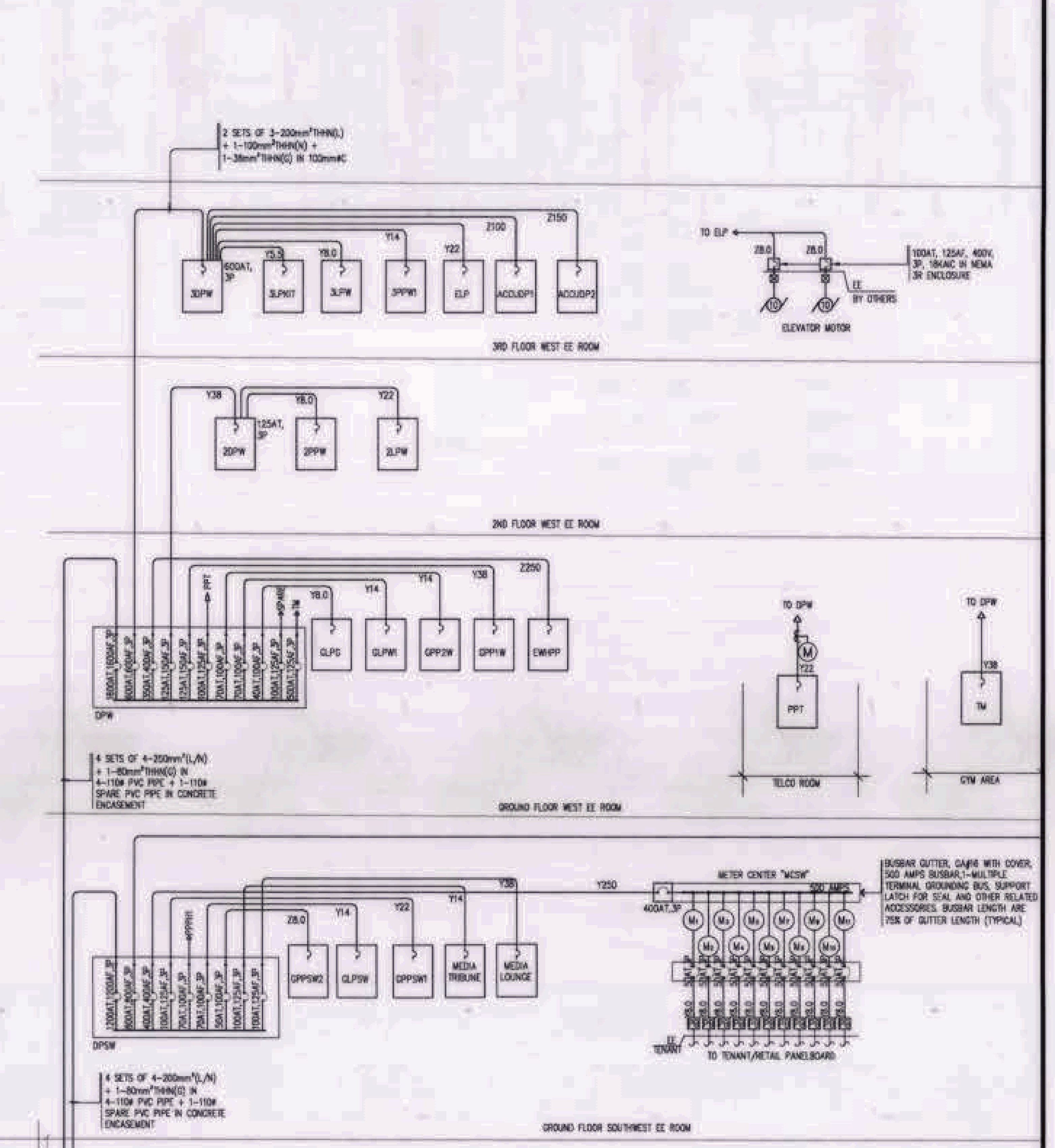
DELINEATION OF WORKS FOR PUMPS, A/C AND VENT MOTORS

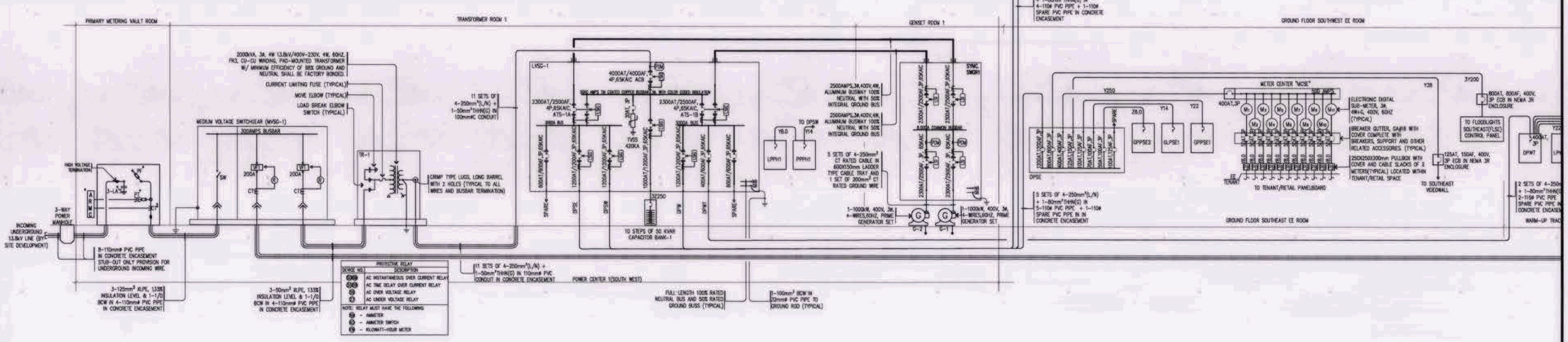


1. TERMINATION OF WIRES FROM MOTOR CONTROLLER TO ENCLOSED CIRCUIT BREAKER ARE DONE BY MECHANICAL OR PLUMBING CONTRACTOR IN COORDINATION WITH ELECTRICAL CONTRACTOR.
2. ALL CONNECTION FROM MOTOR CONTROLLER TO ECB ARE DONE IN METALLIC CONDUIT OR LIQUID TIGHT METALLIC FLEXIBLE CONDUIT FOR SUPPLEMENTAL GROUNDING AND BONDING REQUIREMENT.
3. MECHANICAL AND PLUMBING CONTRACTOR TO SPECIFY AND CONFIRM THE FINAL RATING OF CIRCUIT BREAKER BASED ON MOTOR MANUFACTURER RECOMMENDATION PRIOR TO INSTALLATION TO COMPLY WITH MANUFACTURER REQUIREMENTS.
4. LOCATION OF ENCLOSED CIRCUIT BREAKER ARE BESIDE THE PUMPS OR MOTORS BEING PROTECTED. REFER TO MECHANICAL, SANITARY AND FIRE PROTECTION PLAN FOR THE RECOMMENDED LOCATION.
5. ALL CONDUIT CONNECTION TO OUTDOOR TYPE OR NEMA 4X PANEL OR ECB ARE BOTTOM FEED AND ARE PROVIDED WITH RUBBER GASKET AND SEALANT TO COMPLY TO NEMA 4X REQUIREMENTS.
6. REQUIRED INDIVIDUAL DISCONNECT FOR SINGLE PACKAGE EQUIPMENT WITH GROUP OF MOTORS ARE SUPPLY AND INSTALLED BY EQUIPMENT SUPPLIER. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE DISCONNECT ONLY.

NOTES FOR SWITCHGEARS

1. PROVIDE LAMP INDICATORS AT ALL INCOMING AND OUTGOING OF MAIN AIR CIRCUIT BREAKER.
2. PROVIDE DIGITAL POWER METERING AT MAIN CIRCUIT BREAKER AND ALL BRANCHES.
3. ALL CIRCUIT BREAKERS AT SWITCHGEAR ARE AIR CIRCUIT BREAKER, DRAW-OUT TYPE ARE A MINIMUM INTERRUPTING CAPACITY OF 65 KILO AMPERE UNLESS OTHERWISE SPECIFIED.
4. ALL DRAW-OUT TYPE CIRCUIT BREAKERS WITH 1000AT, 3P RATING AND ABOVE ARE LSIG PROTECTION FUNCTION WITH DISPLAY PANEL.
5. ALL LVSG ARE PROVIDED WITH ACTIVE TRACKING NETWORK TYPE TVSS CONNECTED ACROSS THE MAIN CIRCUIT BREAKER.
6. ALL TERMINATIONS OF CABLE OR BUSWAY AT SWITCHGEAR ARE DONE AT REAR PORTION OF SWITCHGEAR.
7. LOW VOLTAGE AND SYNCHRONIZING SWITCHGEAR SUPPLIER TO COORDINATE WITH BUSWAY SUPPLIER FOR INTERFACING AND PHASE CONNECTION REQUIREMENT. PROVIDE BUSBAR UP TO BUSWAY.
8. ALL BUSBAR AT SWITCHGEAR ARE TIN PLATED COPPER AND PROVIDED WITH COLOR CODED INSULATION AS SPECIFIED. PROVIDE EXTRA HOLES.
9. ALL REAR PORTION OF SWITCHGEAR ARE PROVIDED WITH THERMOPLASTIC AS DEAD FRONT COVER ASIDE FROM SWING TYPE LOCKABLE DOOR.
10. ALL TERMINAL LUGS TO BE USED ARE LISTED CRIMP TYPE LONG BARREL WITH TWO(2) HOLES.
11. UPPER AND LOWER PORTION OF ALL SIDES OF SWITCHGEAR ARE PROVIDED WITH LOUVERS, AND FILTER TO AVOID ENTRY OF DUST.
12. WHOLE ASSEMBLY OF LOW VOLTAGE SWITCHGEAR AND SYNCHRONIZING SWITCHGEAR ARE PROVIDED WITH EXPANSION BOX.
13. EXPANSION BOX ARE INSTALLED ON TOP OF SWITCHGEAR AS CABLE MANAGEMENT AND SUPPORT FOR CABLE TRAY SIDE ENTRY.
14. EXPANSION BOX ARE A MINIMUM HEIGHT OF 300mm WITH SAME DEPTH, LENGTH, COLOR AND FINISH AS SWITCHGEAR.



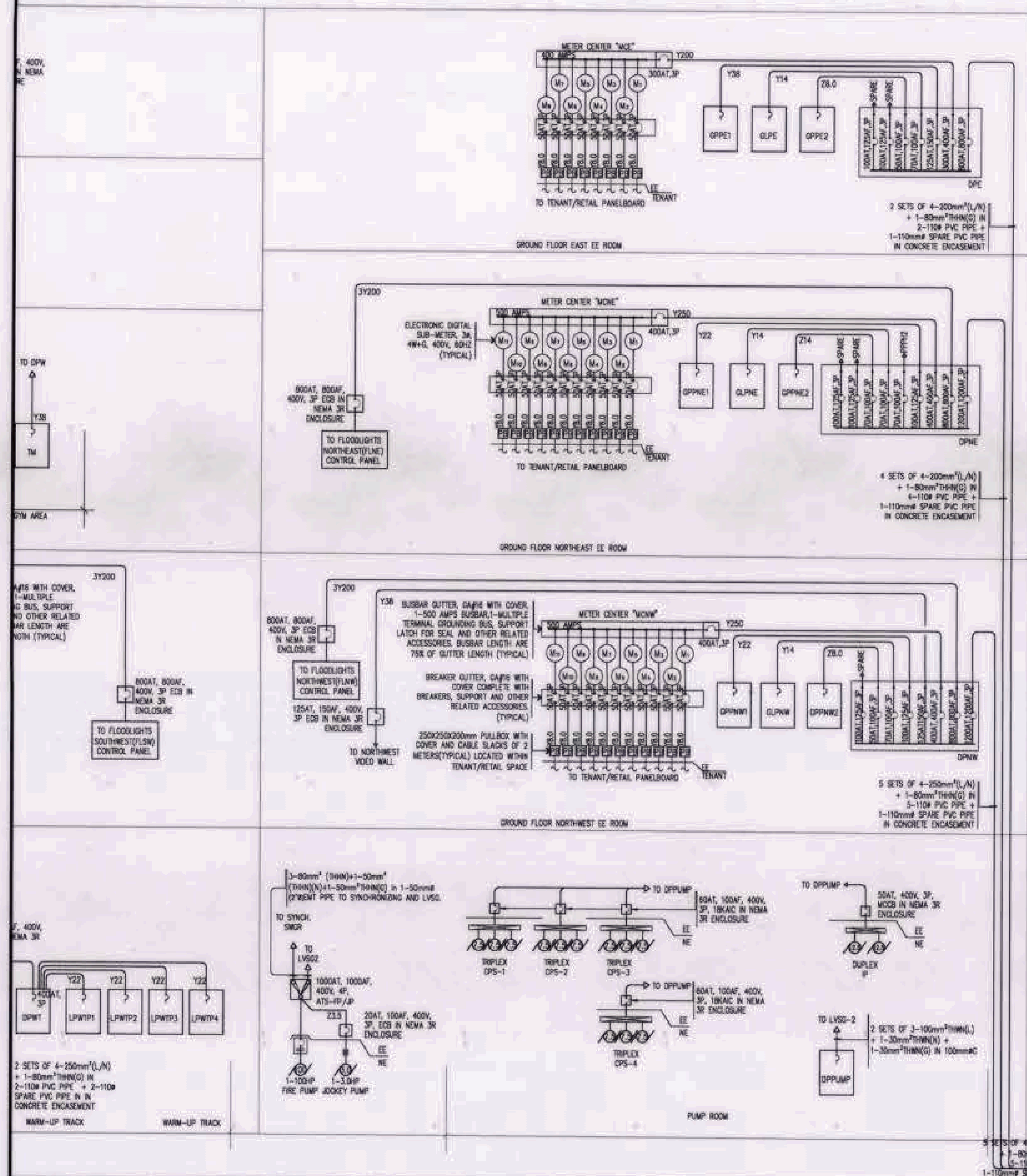


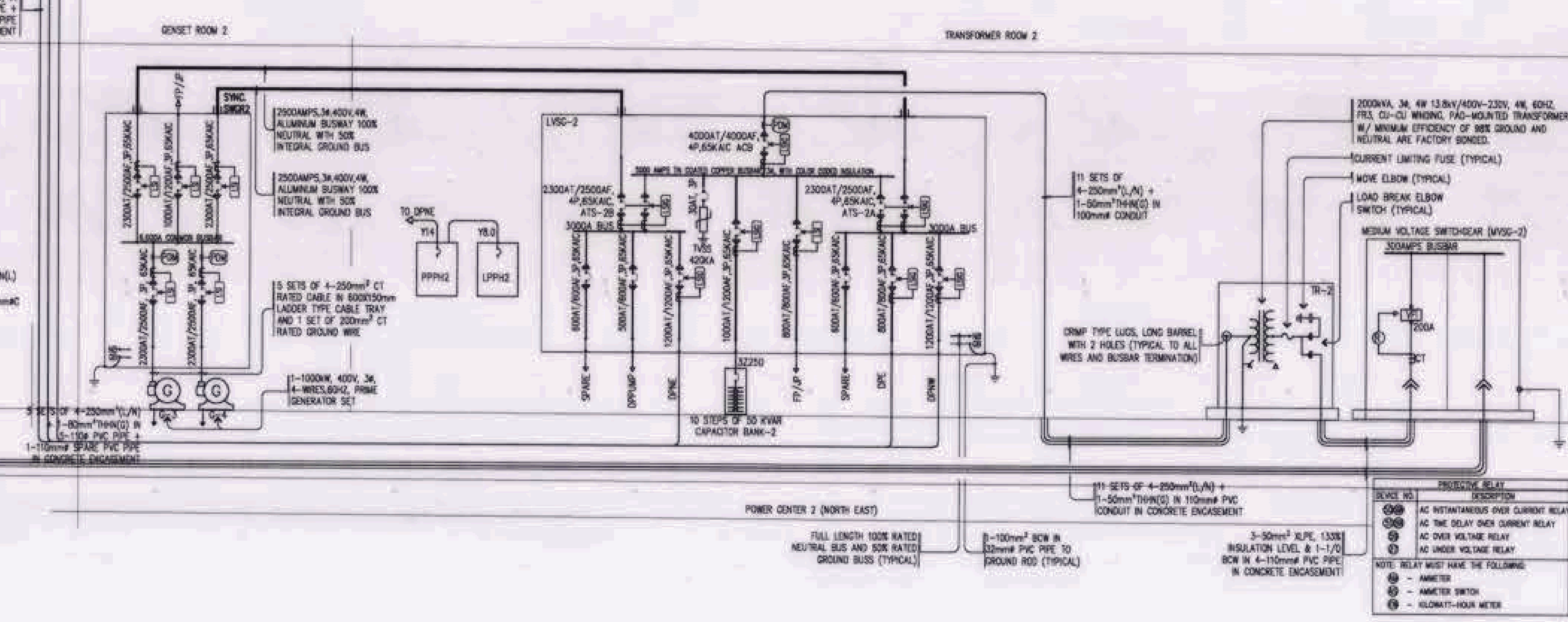
1 POWER RISER DIAGRAM (PART 1 OF 2)
EE-16 SCALE: NTS

MATCH LINE A

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. — VIVENCIO B. DIZON, PRESIDENT; PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION — ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	POWER RISER DIAGRAM (PART 1 OF 2)	EE-16

MATCH LINE A



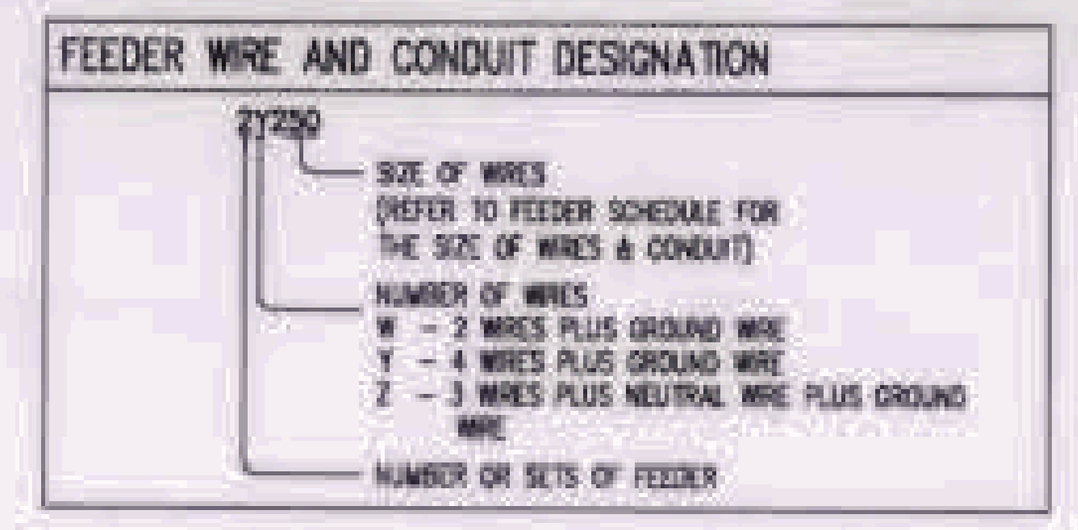


FEEDER SCHEDULE FOR COPPER THHN/THWN

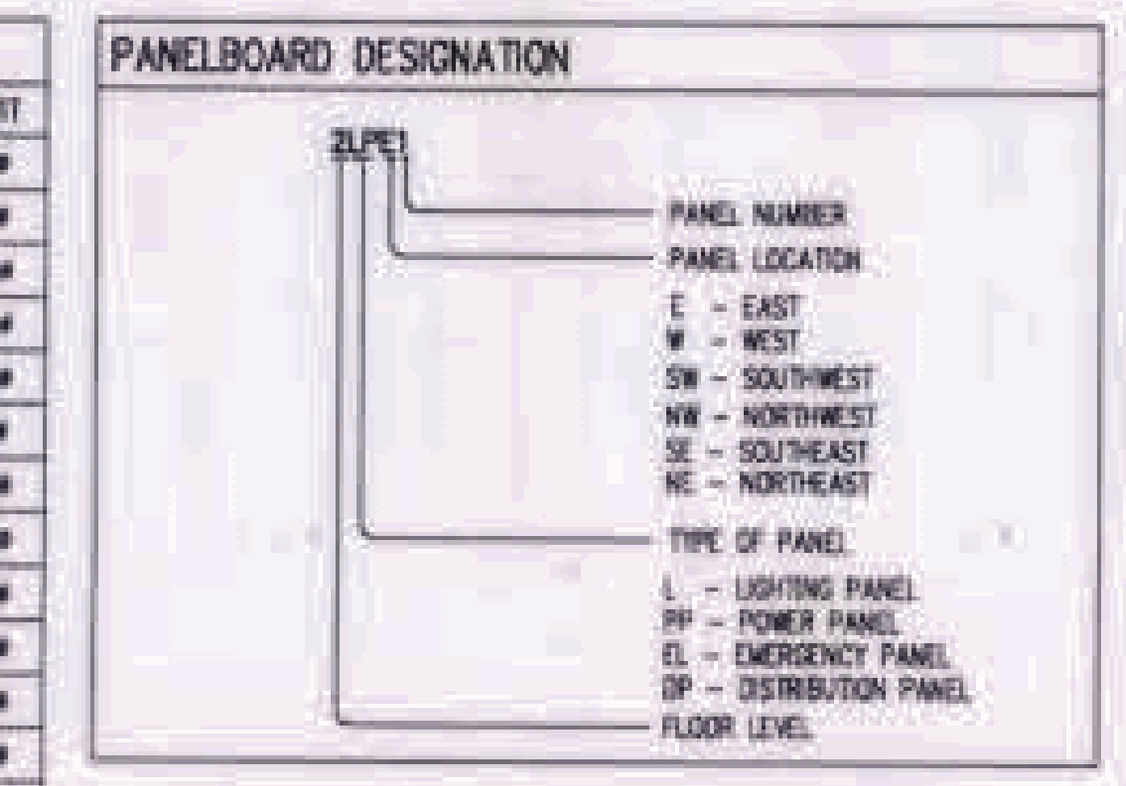
FEEDER	WIRE / CABLE	CONDUIT
W3.5	2-3.5mm² & 1-3.5mm²	15mmø
W5.5	2-5.5mm² & 1-5.5mm²	15mmø
W8.0	2-8.0mm² & 1-5.5mm²	20mmø
W14	2-14mm² & 1-5.5mm²	20mmø
W22	2-22mm² & 1-8.0mm²	25mmø
Y3.5	4-3.5mm² & 1-3.5mm²	15mmø
Y5.5	4-5.5mm² & 1-5.5mm²	20mmø
Y8.0	4-8.0mm² & 1-5.5mm²	25mmø
Y14	4-14mm² & 1-5.5mm²	32mmø
Y22	4-22mm² & 1-8.0mm²	32mmø
Y30	4-30mm² & 1-8.0mm²	40mmø
Y38	4-38mm² & 1-14mm²	50mmø
Y50	4-50mm² & 1-14mm²	50mmø
Y60	4-60mm² & 1-14mm²	50mmø
Y80	4-80mm² & 1-14mm²	65mmø
Y100	4-100mm² & 1-22mm²	65mmø
Y125	4-125mm² & 1-22mm²	80mmø
Y150	4-150mm² & 1-30mm²	80mmø
Y200	4-200mm² & 1-30mm²	90mmø
Y250	4-250mm² & 1-30mm²	100mmø
Z3.5	3-3.5mm² & 1-3.5mm² & 1-3.5mm²	15mmø
Z5.5	3-5.5mm² & 1-5.5mm² & 1-5.5mm²	20mmø
Z8.0	3-8.0mm² & 1-5.5mm² & 1-5.5mm²	25mmø
Z14	3-14mm² & 1-8.0mm² & 1-8.0mm²	25mmø
Z22	3-22mm² & 1-8.0mm² & 1-8.0mm²	32mmø
Z30	3-30mm² & 1-14mm² & 1-14mm²	40mmø
Z38	3-38mm² & 1-14mm² & 1-14mm²	50mmø
Z50	3-50mm² & 1-14mm² & 1-14mm²	50mmø
Z60	3-60mm² & 1-14mm² & 1-14mm²	50mmø
Z80	3-80mm² & 1-14mm² & 1-14mm²	65mmø
Z100	3-100mm² & 1-22mm² & 1-22mm²	65mmø
Z125	3-125mm² & 1-22mm² & 1-22mm²	80mmø
Z150	3-150mm² & 1-30mm² & 1-30mm²	80mmø
Z200	3-200mm² & 1-30mm² & 1-30mm²	90mmø
Z250	3-250mm² & 1-30mm² & 1-30mm²	100mmø

NOTES:
1. FOR MULTIPLE SETS OF FEEDER, MINIMUM SIZE OF NEUTRAL WIRE SHALL BE 50mm², UNLESS OTHERWISE INDICATED.
2. CONDUIT SIZE INDICATES INNER DIAMETER.
3. EACH SET OF FEEDER OR PER CONTAINMENT SHALL HAVE GROUND WIRE.

FEEDER WIRE AND CONDUIT DESIGNATION



PANELBOARD DESIGNATION



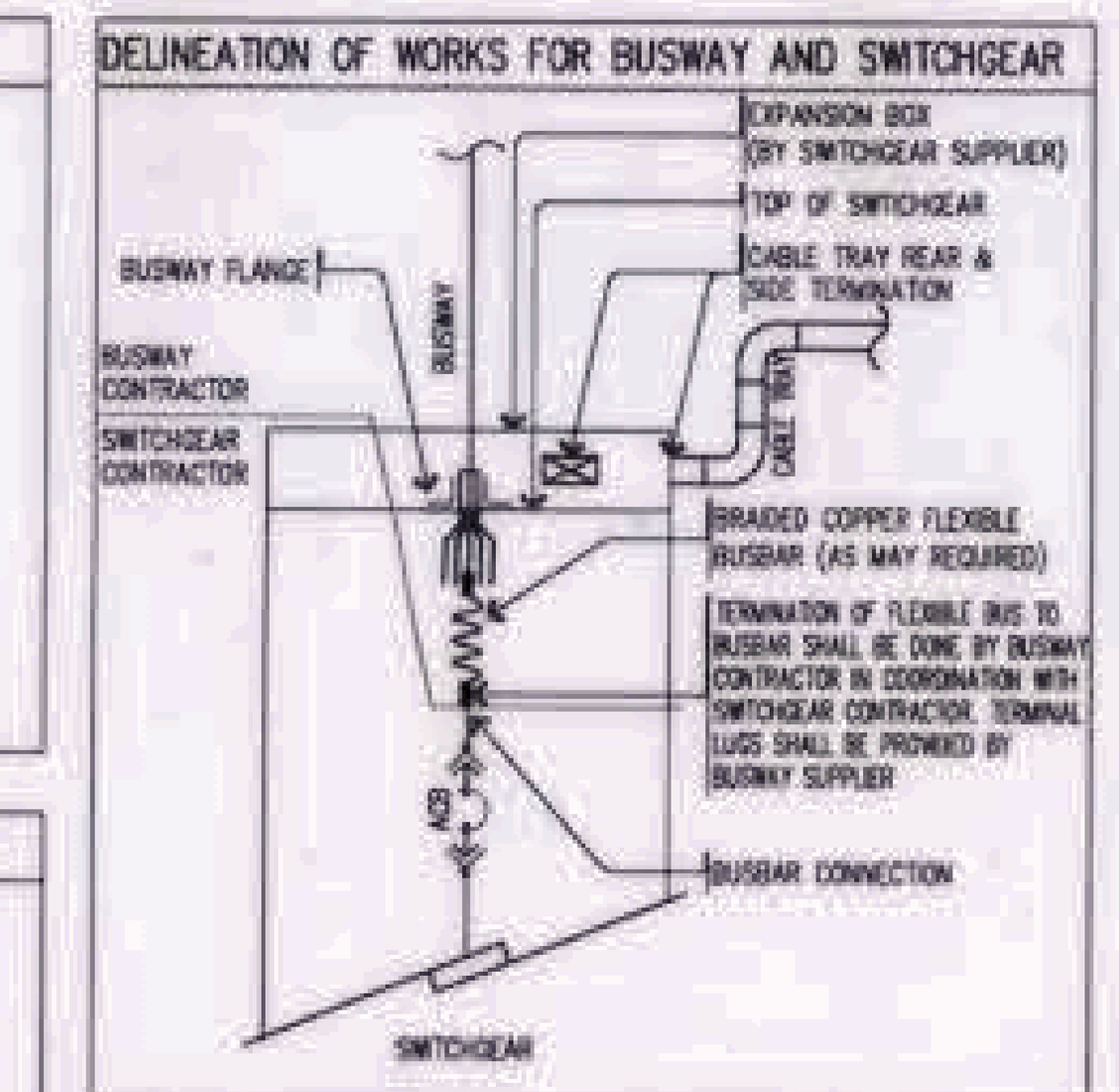
NOTES FOR EXPANSION BOX FOR TRANSFORMER

1. EXPANSION BOX ARE SAME DEPTH, HEIGHT, COLOR AND FINISH AS THE TRANSFORMER.
2. FRONT AND REAR OF EXPANSION BOX ARE PROVIDED WITH LOCKABLE SWING TYPE DOOR COVER.
3. FIX AND MOUNT THE EXPANSION BOX TO TRANSFORMER AND CONCRETE PAD. COORDINATE WITH TRANSFORMER SUPPLIER.
4. CABLE TERMINATION FROM TRANSFORMER TO BUSWAY ARE BOTTOM FEED THROUGH EXPANSION BOX. PROVIDE CABLE SUPPORT, TIE, ETC.

NOTES FOR CABLE TRAY

1. ALL CABLE TRAY ARE LADDER TYPE, OPEN BOTTOM AND WITHOUT COVER.
2. USE BENDED RADIUS AND APPROPRIATE FITTINGS IN CONSIDERATION WITH MINIMUM BENDING RADIUS OF CABLE TO BE USED.
3. CABLE TRAY WIDTH OF 600mm AND ABOVE ARE MINIMUM THICKNESS OF 2.0mm, BELOW 600mm ARE MINIMUM THICKNESS OF 1.50mm RESPECTIVELY.
4. MAXIMUM SPACING BETWEEN LADDER RUNG ARE 230mm CENTER TO CENTER. RUNG ARE SLOTTED AND WELDED.
5. LOW VOLTAGE CABLE ARRANGEMENT ARE QUADRANGLE, BUNDLED TOGETHER WITH CABLE TIE AND LABELING.
6. MAINTAIN MINIMUM CODE SPACING BETWEEN EACH SET OF CABLES.
7. ALL CABLES ARE CABLE TRAY "CT" RATED WITH SIZE AS INDICATED.
8. ALL CABLE TRAY INCLUDING THE SUPPORTED CABLES ARE PROVIDED WITH TAGGING AND LABELING AT EVERY 10 METERS OF HORIZONTAL RUN AND EVERY FLOOR OF VERTICAL RISERS.
9. CABLE TRAY SUPPORT ARE PROVIDED EVERY 1.5m.
10. CABLE TRAYS ARE NOT BE TERMINATED ON TOP OF SWITCHGEAR TO PREVENT ENTRY OF FOREIGN OBJECT. PROVIDE EXPANSION BOX.
11. SEE RELATED NOTES AT SWITCHGEAR.

DELINEATION OF WORKS FOR BUSWAY AND SWITCHGEAR



NOTES FOR BUSWAY

1. ALL BUSWAY RUN ARE IP54 (MIN.)
2. BUSWAY SUPPLIER/CONTRACTOR TO COORDINATE AND COMPLY WITH SWITCHGEAR SUPPLIER FOR PHASE SEQUENCE ARRANGEMENT CONNECTION REQUIREMENT.
3. BUSWAY FLANGE ARE PROPERLY ATTACHED TO SWITCHGEAR OR TRANSFORMER AND ARE MOUNTED ON TOP OF CUBICLE INTENDED FOR BUSWAY. PROVIDE BONDING WIRE.
4. BUSWAY CONNECTION TO SWITCHGEAR ARE SOLID BUSBAR. PROVIDE BRAIDED FLEXIBLE BUS AS REQUIRED.
5. ALL BUSWAY ARE PROVIDED WITH TAGGING AND LABELING.
6. BUSWAY SUPPLIER/CONTRACTOR TO CONDUCT ACTUAL SITE MEASUREMENT AND COORDINATE WITH EE AND OTHER CONTRACTORS AND SECURE APPROVED SHOP DRAWING PRIOR TO BUSWAY FABRICATION.

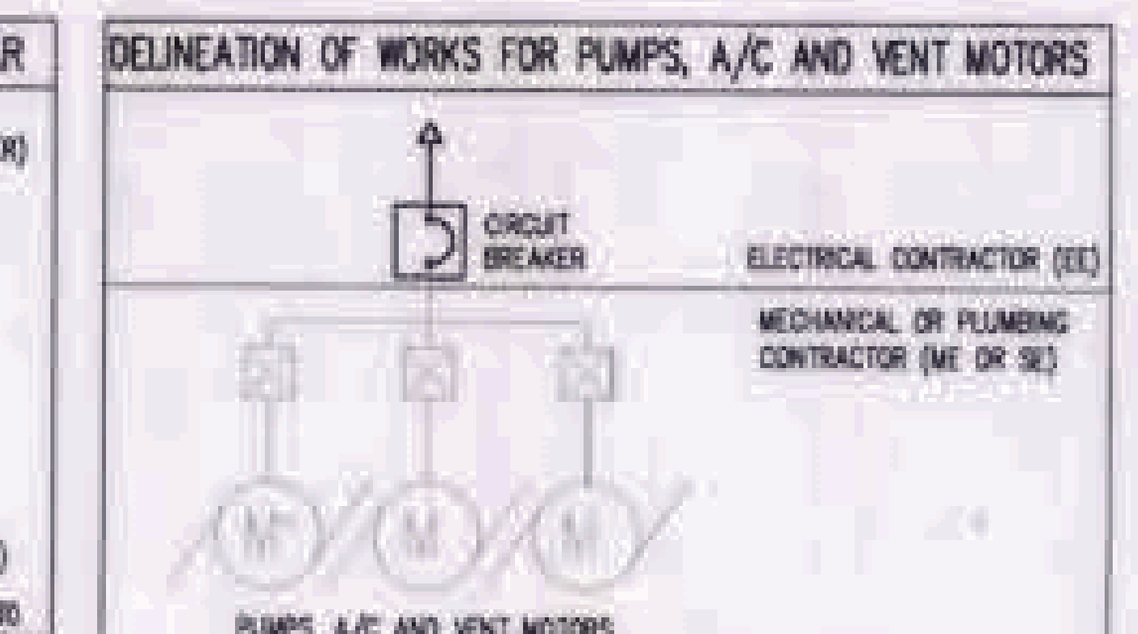
NOTES FOR METER CENTER

1. BREAKER AND BUSBAR GUTTER HAVE A HEAVY DUTY HINGE TYPE COVER AND SUPPORT.
2. USE MOLDED CASE CIRCUIT BREAKER FOR BREAKER GUTTER AND HAVE A DEAD FRONT COVER WITH TAGGING AND LABELING.
3. BREAKER AND BUSBAR GUTTER ARE OF THE SAME LENGTH, WIDTH AND DEPTH.
4. LENGTH OF COLOR CODED BUSBAR ARE 75% OF GUTTER AND SHALL BE LAYERED. PROVIDE EXTRA HOLES WITH LUGS FOR FUTURE TERMINATION.
5. FEEDER AND CONDUIT SIZE FROM BREAKER TO BUSBAR GUTTER ARE SAME AS LOAD BEING SERVED. REFER TO METER CENTER SCHEDULE.

NOTES FOR ELEVATOR

1. ELEVATOR SUPPLIER TO ADAPT TO BUILDING SYSTEM VOLTAGE.
2. EQUIPMENT LIKE TVSS, AVR, ETC NEEDED FOR ELEVATOR TO OPERATE ARE PROVIDED BY THE ELEVATOR CONTRACTOR.

DELINEATION OF WORKS FOR PUMPS, A/C AND VENT MOTORS



1. TERMINATION OF WIRES FROM MOTOR CONTROLLER TO ENCLOSED CIRCUIT BREAKER ARE DONE BY MECHANICAL OR PLUMBING CONTRACTOR IN COORDINATION WITH ELECTRICAL CONTRACTOR.
2. ALL CONNECTION FROM MOTOR CONTROLLER TO ECB ARE DONE IN METALLIC CONDUIT OR LIQUID TIGHT METALLIC FLEXIBLE CONDUIT FOR SUPPLEMENTAL GROUNDING AND BONDING REQUIREMENT.
3. MECHANICAL AND PLUMBING CONTRACTOR TO SPECIFY AND CONFIRM THE FINAL RATING OF CIRCUIT BREAKER BASED ON MOTOR MANUFACTURER RECOMMENDATION PRIOR TO INSTALLATION TO COMPLY WITH MANUFACTURER REQUIREMENTS.
4. LOCATION OF ENCLOSED CIRCUIT BREAKER ARE BESIDE THE PUMPS OR MOTORS BEING PROTECTED. REFER TO MECHANICAL, SANITARY AND FIRE PROTECTION PLAN FOR THE RECOMMENDED LOCATION.
5. ALL CONDUIT CONNECTION TO OUTDOOR TYPE OR NEMA 4X PANEL OR ECB ARE BOTTOM FEED AND ARE PROVIDED WITH RUBBER GASKET AND SEALANT TO COMPLY TO NEMA 4X REQUIREMENTS.
6. REQUIRED INDIVIDUAL DISCONNECT FOR SINGLE PACKAGE EQUIPMENT WITH GROUP OF MOTORS ARE SUPPLY AND INSTALLED BY EQUIPMENT SUPPLIER. ELECTRICAL CONTRACTOR TO PROVIDE SINGLE DISCONNECT ONLY.

NOTES FOR SWITCHGEARS

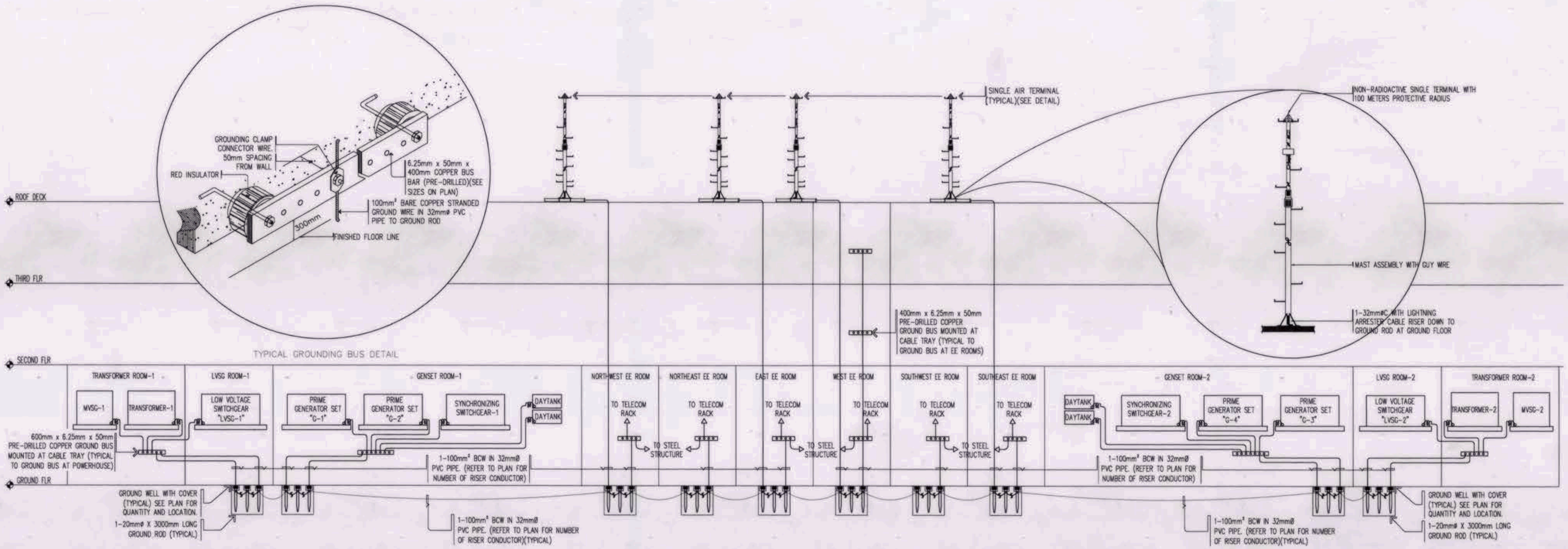
1. PROVIDE LAMP INDICATORS AT ALL INCOMING AND OUTGOING OF MAIN AIR CIRCUIT BREAKER.
2. PROVIDE DIGITAL POWER METERING AT MAIN CIRCUIT BREAKER AND ALL BRANCHES.
3. ALL CIRCUIT BREAKERS AT SWITCHGEAR ARE AIR CIRCUIT BREAKER, DRAW-OUT TYPE AND HAVE A MINIMUM INTERRUPTING CAPACITY OF 65 KILO AMPERE UNLESS OTHERWISE SPECIFIED.
4. ALL DRAW-OUT TYPE CIRCUIT BREAKERS WITH 1000AT, 3P RATING AND ABOVE HAVE A LSIG PROTECTION FUNCTION WITH DISPLAY PANEL.
5. ALL LVSG ARE PROVIDED WITH ACTIVE TRACKING NETWORK TYPE TVSS CONNECTED ACROSS THE MAIN CIRCUIT BREAKER.
6. ALL TERMINATIONS OF CABLE OR BUSWAY AT SWITCHGEAR SHALL BE DONE AT REAR PORTION OF SWITCHGEAR.
7. LOW VOLTAGE AND SYNCHRONIZING SWITCHGEAR SUPPLIER TO COORDINATE WITH BUSWAY SUPPLIER FOR INTERFACING AND PHASE CONNECTION REQUIREMENT. PROVIDE BUSBAR UP TO BUSWAY.
8. ALL BUSBAR AT SWITCHGEAR ARE TIN PLATED COPPER AND PROVIDED WITH COLOR CODED INSULATION AS SPECIFIED. PROVIDE EXTRA HOLES.
9. ALL REAR PORTION OF SWITCHGEAR ARE PROVIDED WITH THERMOPLASTIC AS DEAD FRONT COVER ASIDE FROM SWING TYPE LOCKABLE DOOR.
10. ALL TERMINAL LUGS TO BE USED ARE LISTED CRIMP TYPE LONG BARREL WITH TWO(2) HOLES.
11. UPPER AND LOWER PORTION OF ALL SIDES OF SWITCHGEAR ARE PROVIDED WITH LOUVERS, AND FILTER TO AVOID ENTRY OF DUST.
12. WHOLE ASSEMBLY OF LOW VOLTAGE SWITCHGEAR AND SYNCHRONIZING SWITCHGEAR ARE PROVIDED WITH EXPANSION BOX.
13. EXPANSION BOX ARE INSTALLED ON TOP OF SWITCHGEAR AS CABLE MANAGEMENT AND SUPPORT FOR CABLE TRAY SIDE ENTRY.
14. EXPANSION BOX HAVE A MINIMUM HEIGHT OF 300mm WITH SAME DEPTH, LENGTH, COLOR AND FINISH AS SWITCHGEAR.

1 POWER RISER DIAGRAM (PART 2 OF 2)

EE-17 SCALE: NTS

MATCH LINE A

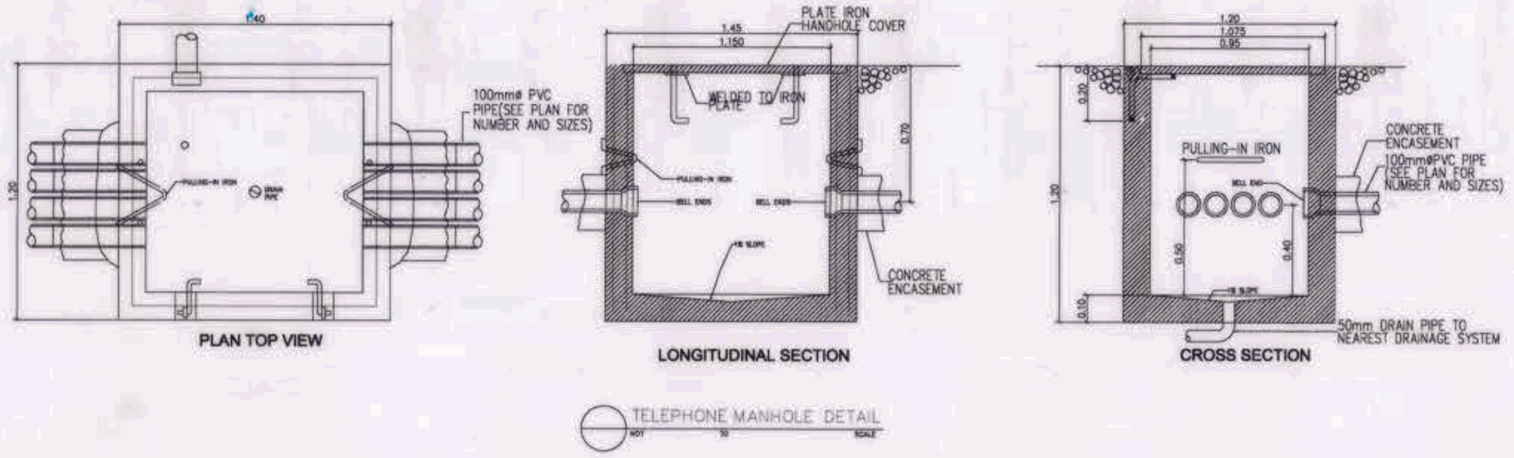
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Capas, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	POWER RISER DIAGRAM (PART 2 OF 2)	EE-17



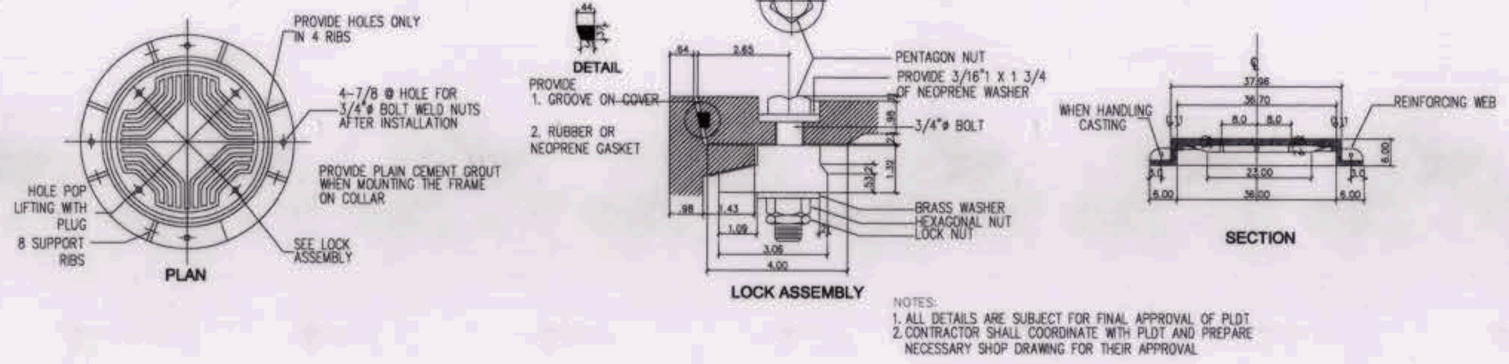
1 EE-18 GROUNDING SYSTEM RISER DIAGRAM

SCALE: NTS

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MVD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	GROUNDING SYSTEM RISER DIAGRAM	EE-18

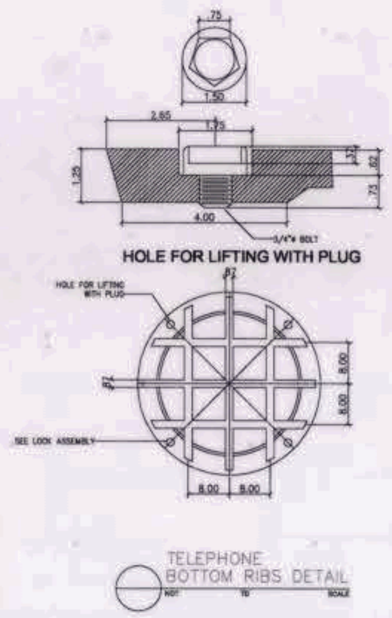


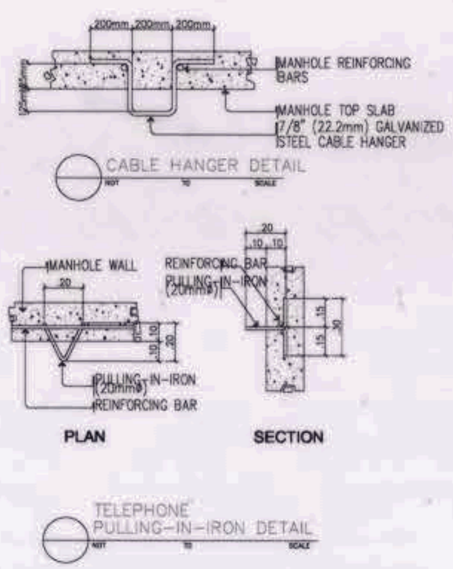
TELEPHONE MANHOLE DETAIL

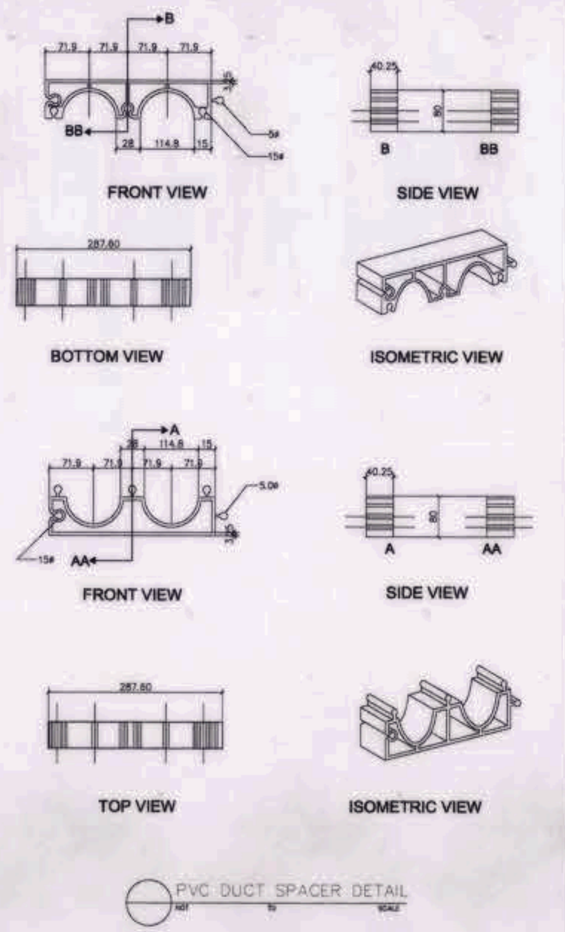


NOTES:
1. ALL DETAILS ARE SUBJECT FOR FINAL APPROVAL OF PLDT.
2. CONTRACTOR SHALL COORDINATE WITH PLDT AND PREPARE NECESSARY SHOP DRAWING FOR THEIR APPROVAL

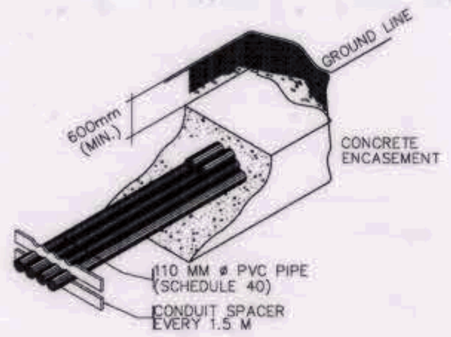
TELEPHONE MANHOLE FRAME AND COVER FABRICATION DETAIL





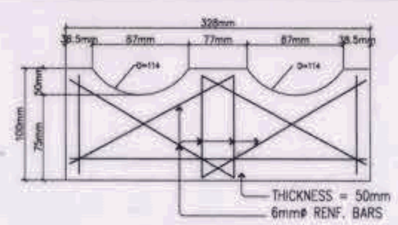


PVC DUCT SPACER DETAIL



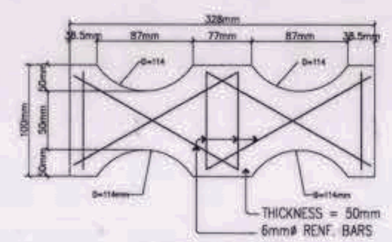
NOTE:
1. SEE PLAN FOR NUMBER OF PIPES USED AND SIZE OF CONCRETE ENCASEMENT
2. SEE CONCRETE SEPARATOR OR PVC DUCT SPACER DETAIL

CONCRETE ENCASEMENT



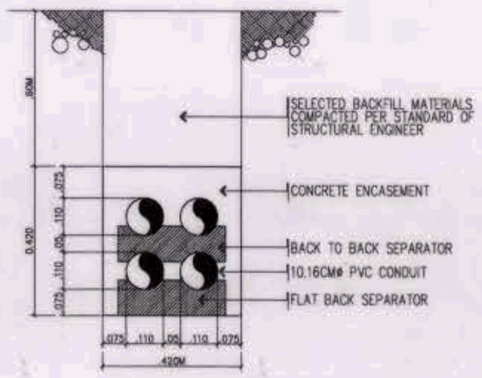
NOTE:
COMPRESSIVE STRENGTH=2000 PSI AFTER 28 DAYS FOR ALL CONCRETE SEPARATOR

TYPICAL CONCRETE SEPARATOR FLAT BACK DETAIL



NOTE:
COMPRESSIVE STRENGTH=2000 PSI AFTER 28 DAYS FOR ALL CONCRETE SEPARATOR

TYPICAL CONCRETE SEPARATOR BACK TO BACK DETAIL

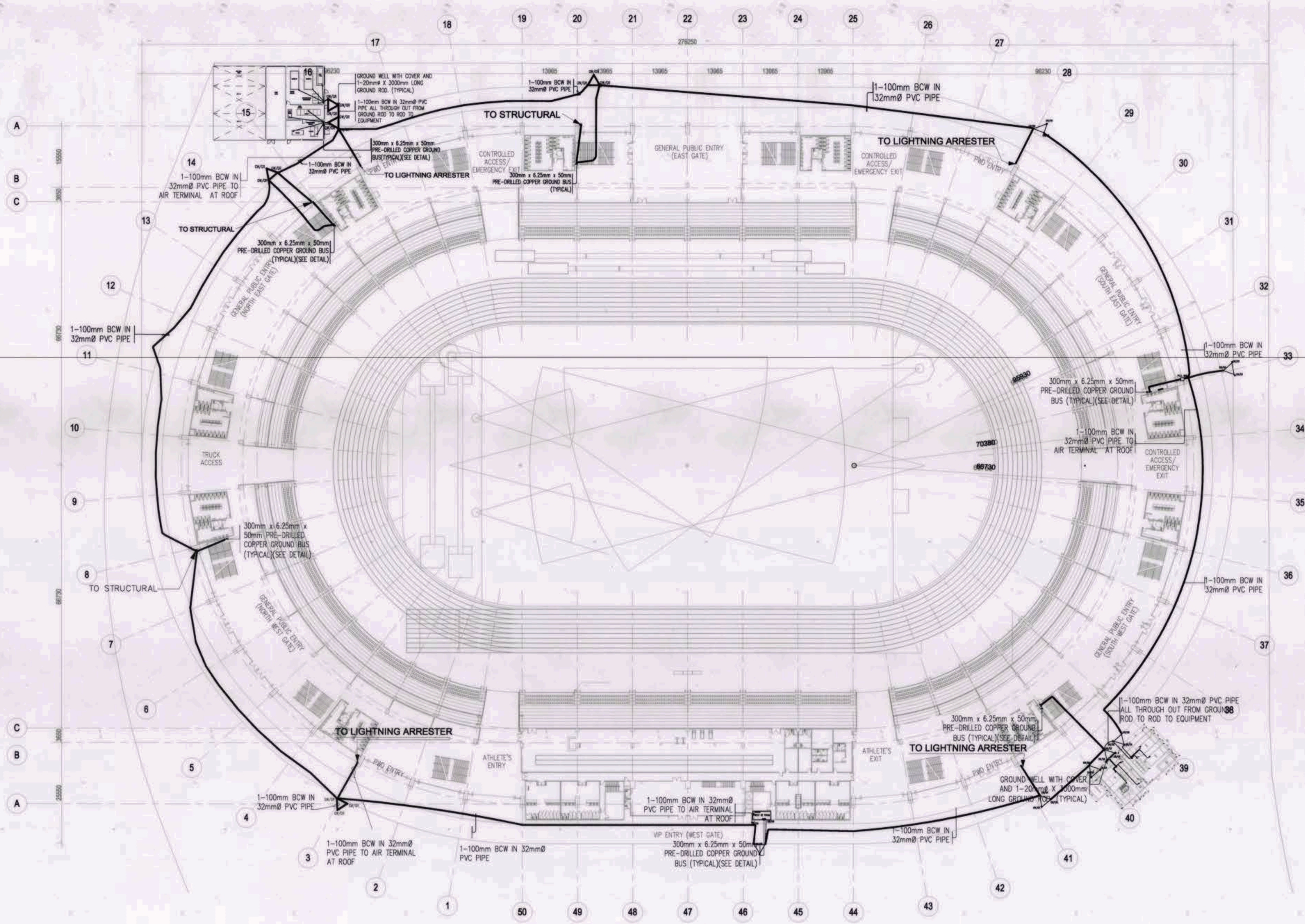


CONDUIT RUN CONFIGURATION

1 EE-19 MISCELLANEOUS DETAILS PART 1

SCALE: NTS

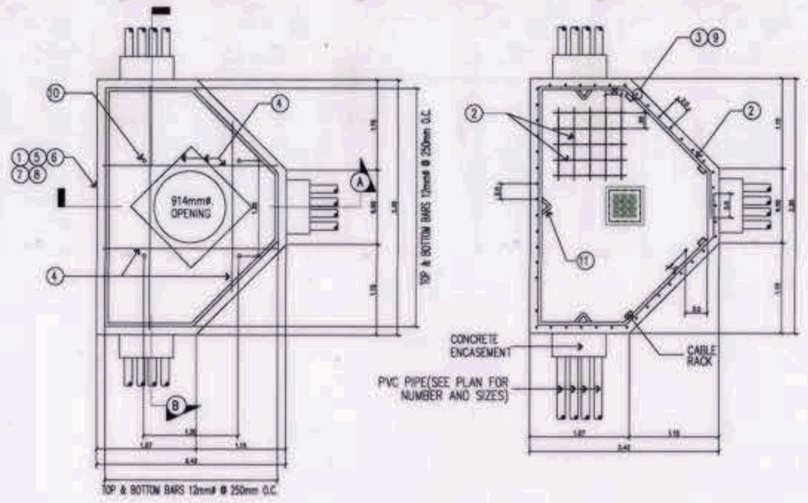
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON PRESIDENT / PATRICK NICHOLAS P. DAVID PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	MISCELLANEOUS DETAILS PART 1	EE-19



1 GROUNDING SYSTEM LAYOUT

EE-2 SCALE: 1:500M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL NORTH WEST GROUNDING SYSTEM LAYOUT GROUND FLOOR LIGHTING SYSTEM LAYOUT	EE-2

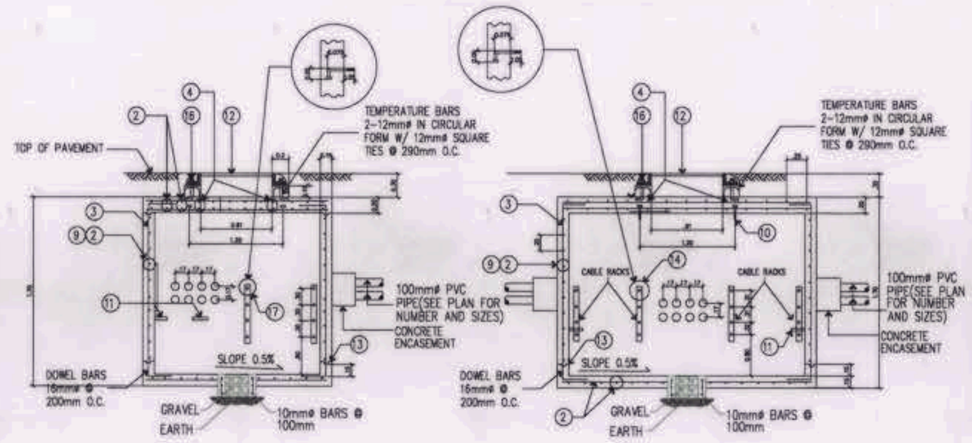


PLAN

SECTIONAL PLAN

NOTES:

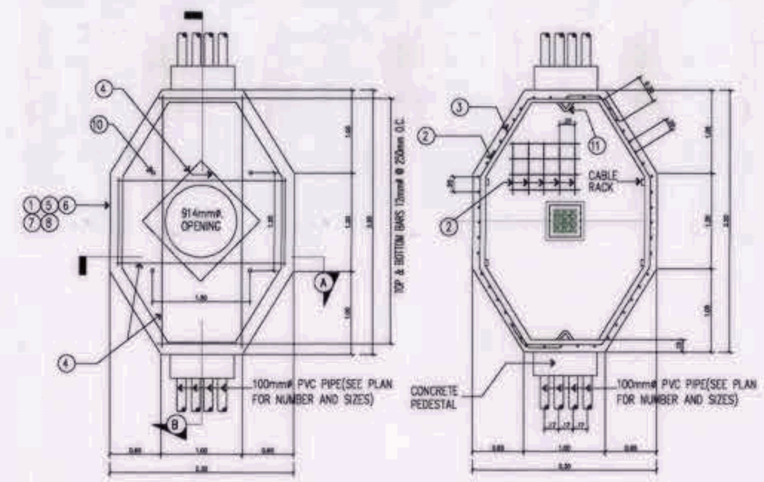
1. PRIMARY MANHOLE SHALL BE USED PRIMARILY ALONG ROADWAYS.
2. ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE f'c SHALL BE 17.2 MPa (2500 PSI).
3. REINFORCING BARS SHALL CONFORM TO PS GRADE 275 f'Y = 275 MPa (40,000PSI).
4. THE MINIMUM SOIL BEARING CAPACITY SHALL BE 96 KN/SQ. M. (2000 PSF).
5. ALL LAP SPLICES IN REINFORCING BARS SHALL BE TO A MINIMUM OF 300MM.
6. SEAL WITH WATER STOP SEALER ALL CONSTRUCTION JOINTS PRIOR TO NEXT POURING.
7. FLOOR SLAB SHALL SLOPE GRADUALLY TOWARDS DRAIN PIT TO PROVIDE POSITIVE DRAIN. CONNECT DRAIN PIPE TO DRAINAGE SYSTEM.
8. PULLING IN IRON SHALL BE INSTALLED ON THE WALL OPPOSITE THE CONDUIT ENTRANCE AND IN LINE WITH THE DUCTS AND INSTALLED NOT HIGHER THAN THE CENTERLINES OF THE LOWER MOST DUCTS AT THE OPPOSITE CONDUIT ENTRANCE.
9. ALL EDGES OF SLAB OPENING SHALL BE REINFORCE ACCORDINGLY.
10. CLEAR CONDUIT ENTRANCE FROM REINFORCED BARS. BEND OR LOOP AROUND GROUP OF DUCTS AS FIELD CONDITIONS MAY REQUIRE.
11. PVC ELECTRICAL DUCTS USED IN THE CONSTRUCTION OF PRIMARY CONDUIT SYSTEM MAY BE USED AS DRAIN PIPE.
12. WHERE DRAIN PIPE LEADS DIRECTLY INTO SEWERS, TRAP SHOULD BE USED TO KEEP SEWER GAS OUT OF THE PULLING BOX.
13. ALL BACKFILL UNDER FLOOR SLAB SHALL BE FIRMLY TAMPED BEFORE POURING.



SECTION THRU A SECTION THRU B

FOR PRIMARY MANHOLE , 3-WAY	
ITEM	DESCRIPTION
1	CONCRETE
2	REINFORCING BARS, 12mmø X 6000mm LONG
3	REINFORCING BARS, 16mmø X 6000mm LONG
4	REINFORCING BARS, 20mmø X 6000mm LONG
5	FORM LUMBER, 25 X 300 X 3660 (1" X 12" X 12')
6	FORM LUMBER, 50 X 150 X 4270 (2" X 6" X 14')
7	COMMON NAIL, 75mm LONG
8	COMMON NAIL, 40mm LONG
9	TIE WIRE, GA. NO. 16 G.I.
10	MACHINE BOLT, 16mmø X 150mm LONG
11	PULLING-IN IRON
12	MANHOLE FRAME & COVER, DWG. UDP-MH-FC
13	WATER STOP SEALER, POLYVINYL PLASTIC, 100 WIDE
16	ANCHOR BOLT, 19mmø X 200mm LONG
17	MACHINE BOLT, 12mmø X 175mm LONG

POWER PRIMARY MANHOLE , 3-WAY

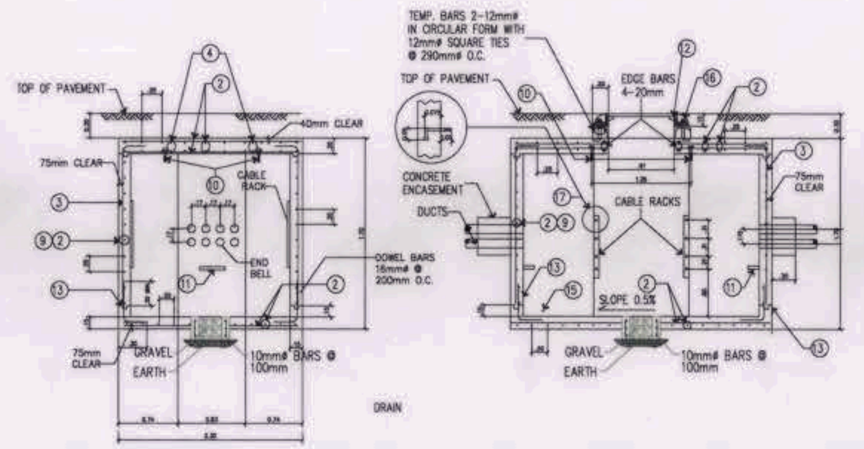


PLAN

SECTIONAL PLAN

NOTES:

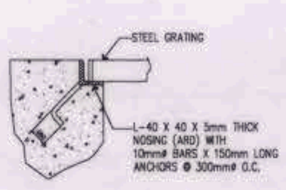
1. PRIMARY MANHOLE SHALL BE USED PRIMARILY ALONG ROADWAYS.
2. ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE f'c SHALL BE 17.2 MPa (2500 PSI).
3. REINFORCING BARS SHALL CONFORM TO PS GRADE 275 f'Y = 275 MPa (40,000PSI).
4. THE MINIMUM SOIL BEARING CAPACITY SHALL BE 96 KN/SQ. M. (2000 PSF).
5. ALL LAP SPLICES IN REINFORCING BARS SHALL BE TO A MINIMUM OF 300MM.
6. SEAL WITH WATER STOP SEALER ALL CONSTRUCTION JOINTS PRIOR TO NEXT POURING.
7. FLOOR SLAB SHALL SLOPE GRADUALLY TOWARDS DRAIN PIT TO PROVIDE POSITIVE DRAIN. CONNECT DRAIN PIPE TO DRAINAGE SYSTEM.
8. PULLING IN IRON SHALL BE INSTALLED ON THE WALL OPPOSITE THE CONDUIT ENTRANCE AND IN LINE WITH THE DUCTS AND INSTALLED NOT HIGHER THAN THE CENTERLINES OF THE LOWER MOST DUCTS AT THE OPPOSITE CONDUIT ENTRANCE.
9. ALL EDGES OF SLAB OPENING SHALL BE REINFORCE ACCORDINGLY.
10. CLEAR CONDUIT ENTRANCE FROM REINFORCED BARS. BEND OR LOOP AROUND GROUP OF DUCTS AS FIELD CONDITIONS MAY REQUIRE.
11. PVC ELECTRICAL DUCTS USED IN THE CONSTRUCTION OF PRIMARY CONDUIT SYSTEM MAY BE USED AS DRAIN PIPE.
12. WHERE DRAIN PIPE LEADS DIRECTLY INTO SEWERS, TRAP SHOULD BE USED TO KEEP SEWER GAS OUT OF THE PULLING BOX.
13. ALL BACKFILL UNDER FLOOR SLAB SHALL BE FIRMLY TAMPED BEFORE POURING.



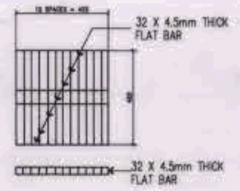
SECTION THRU A SECTION THRU B

FOR PRIMARY MANHOLE , 2-WAY	
ITEM	DESCRIPTION
1	CONCRETE
2	REINFORCING BARS, 12mmø X 6000mm LONG
3	REINFORCING BARS, 16mmø X 6000mm LONG
4	REINFORCING BARS, 20mmø X 6000mm LONG
5	FORM LUMBER, 25 X 300 X 4880 (1" X 12" X 16)
6	FORM LUMBER, 50 X 150 X 4880 (2" X 6" X 16")
7	COMMON NAIL, 75mm LONG
8	COMMON NAIL, 40mm LONG
9	TIE WIRE, GA. NO. 16 G.I.
10	MACHINE BOLT, 19mmø X 150mm LONG
11	PULLING-IN IRON
12	MANHOLE FRAME & COVER, DWG. UDP-MH-FC
13	WATER STOP SEALER, POLYVINYL PLASTIC, 100 WIDE
16	ANCHOR BOLT, 19mmø X 200mm LONG
17	MACHINE BOLT, 12mmø X 175mm LONG

POWER PRIMARY MANHOLE , 2-WAY



DETAIL 1



DETAIL 2

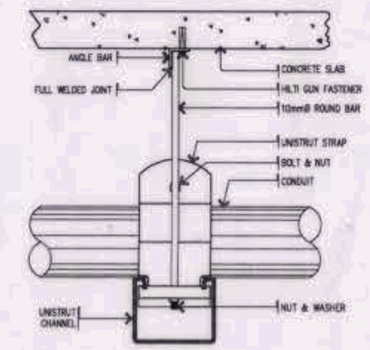
FOR PRIMARY MANHOLE , 4-WAY	
ITEM	DESCRIPTION
1	EXCAVATION
2	GRAVEL FILL
3	CONCRETE (3000 psi)
4	REBARS (PS GRADE 275) 12mmø X 6000m. LONG
5	TIE WIRE, GA. NO. 16 G.I.
6	FORM LUMBER (ASSORTED)
7	PLYWOOD, 4' X 8' X 1/2" THICK
8	COMMON NAILS (ASSORTED)
9	FORM OIL
10	FLAT STEEL BAR, 32 X 4.5 mm THICK X 425mm LONG
11	ANGLE 40mm X 40mm X 5mm LONG
12	PLAIN ROD, 10mm X 150mm LONG
13	WATER STOP SEALER, POLYVINYL PLASTIC, 100mm WIDE
14	MACHINE BOLT WITH HEX NUT AND WASHER, 16mmø X 150mm LONG
15	PULLING-IN IRON
16	MANHOLE FRAME AND COVER
17	ANCHOR BOLT WITH HEX NUT AND WASHER, 19mmø X 200mm LONG
18	GROUNDING ROD, 20mmø X 3000mm LONG

NOTES:

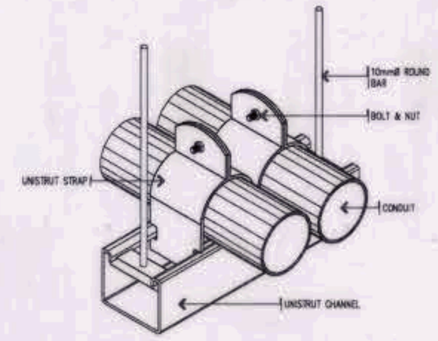
1. PRIMARY MANHOLE SHALL BE USED PRIMARILY ALONG ROADWAYS.
2. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE, f'c = 211 KG/CM² (4000 psi)
3. REINFORCING BARS SHALL CONFORM TO PS GRADE 275 f'Y = 2812 KG/CM² (4,000PSI).
4. SOIL BEARING CAPACITY SHALL BE 10000 KSM (2000 PSF).
5. LAP SPLICES IN REINF. BARS SHALL BE TO A MINIMUM OF 40 BAR DIAMETER
6. BOTTOM SLAB SHALL SLOPE TOWARDS DRAIN PIT, CONNECT DRAIN PIPE TO EXISTING DRAINAGE SYSTEM, IF APPLICABLE.
7. PVC ELECTRICAL DUCTS USED IN PRIMARY CONDUIT SYSTEM MAY BE USED AS DRAIN PIPE
8. WHERE DRAIN PIPE LEADS DIRECTLY INTO SEWERS, TRAP SHOULD BE USED TO KEEP SEWER GAS OUT OF THE PULLING BOX
9. CLEAR CONDUIT ENTRANCE FROM REINFORCED BARS. BEND OR LOOP AROUND GROUP OF DUCTS AS FIELD CONDITIONS MAY REQUIRE.

1 EE-20 MISCELLANEOUS DETAILS PART 2
SCALE: NTS

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA Bases Conversion and Development Authority AND MTD Clark, Inc. VIVENCIO B. DIZON PRESIDENT PATRICK NICHOLAS P. DAVID PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION 1605 E. RODRIGUEZ SR. AVENUE CUBAO, QUEZON CITY TEL. #:(02)864-4152 to 59 EMAIL: www.hcc.com.ph ANGELITO L. OLLERES PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants 5th Floor Aurora Mansions Bldg. 1045 Aurora Blvd. Quezon City Philippines 111 tel. (632) 421-2871 to 74 Fax (632) 421-2431 Email : filipinas@info.com.ph Website : www.fdcinc.com ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS 5th Flr. Fabio Bldg., 108 K.A. Robles St., Legaspi Village, Makati City 1229 Philippines * Tel. Nos. 8173231 to 35 VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	MISCELLANEOUS DETAILS PART 2	EE-20

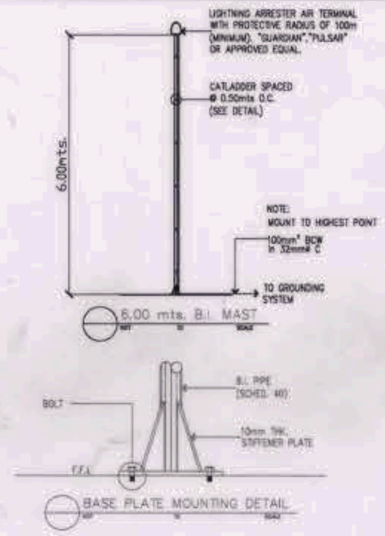


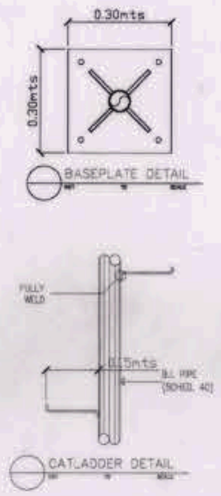
FRONT VIEW

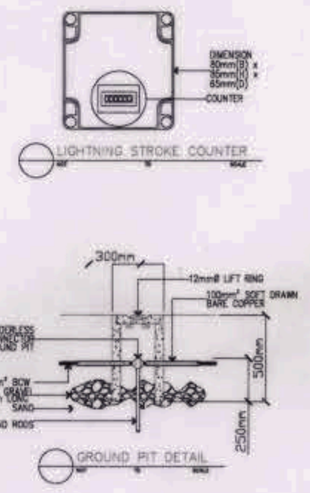


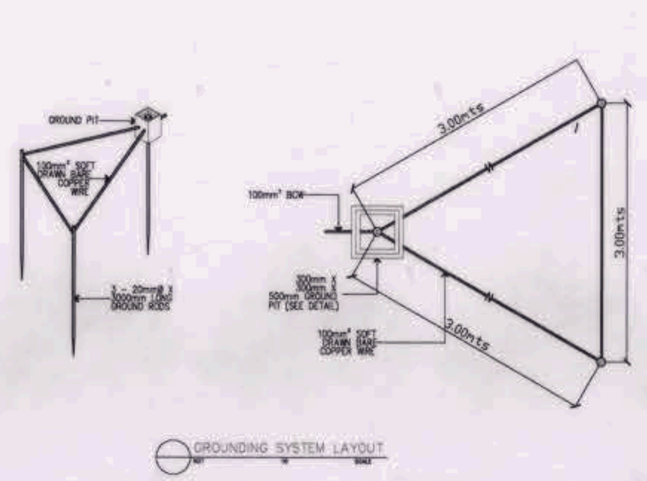
ISOMETRIC

CONDUIT SUPPORT DETAIL

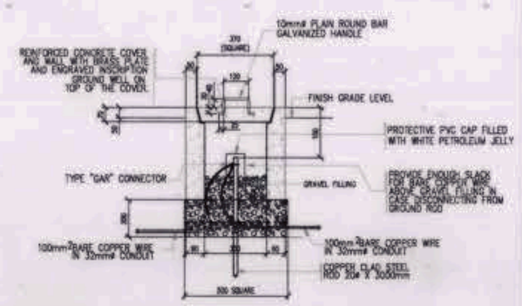




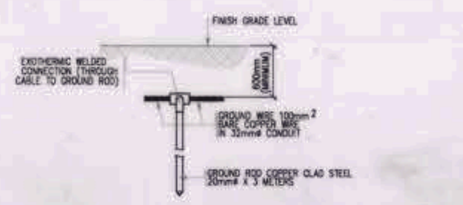




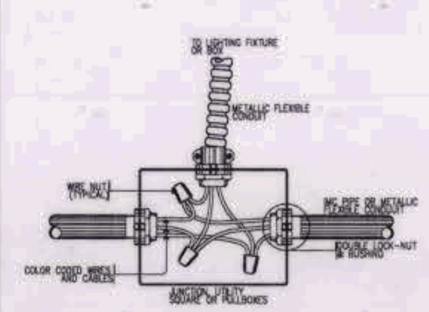
AIR TERMINAL MOUNTING DETAIL



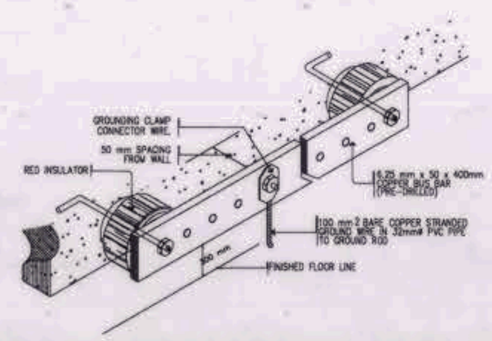
GROUND TEST WELL DETAIL



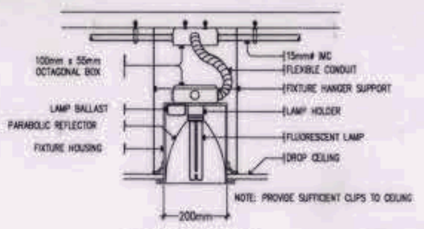
GROUND ROD DETAIL



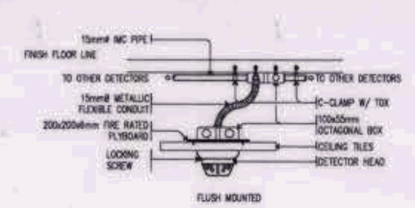
RACEWAY AND BOX CONNECTION DETAIL



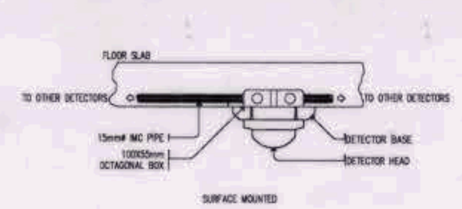
GROUNDING BUS DETAIL



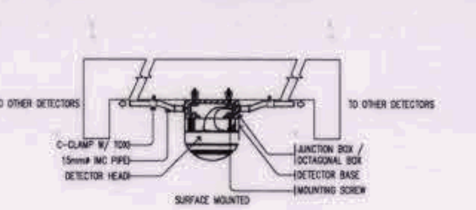
PINLIGHT MOUNTING DETAIL



DETECTOR MOUNTING DETAIL(FLUSH MOUNTED)



DETECTOR MOUNTING DETAIL(SURFACE MOUNTED)

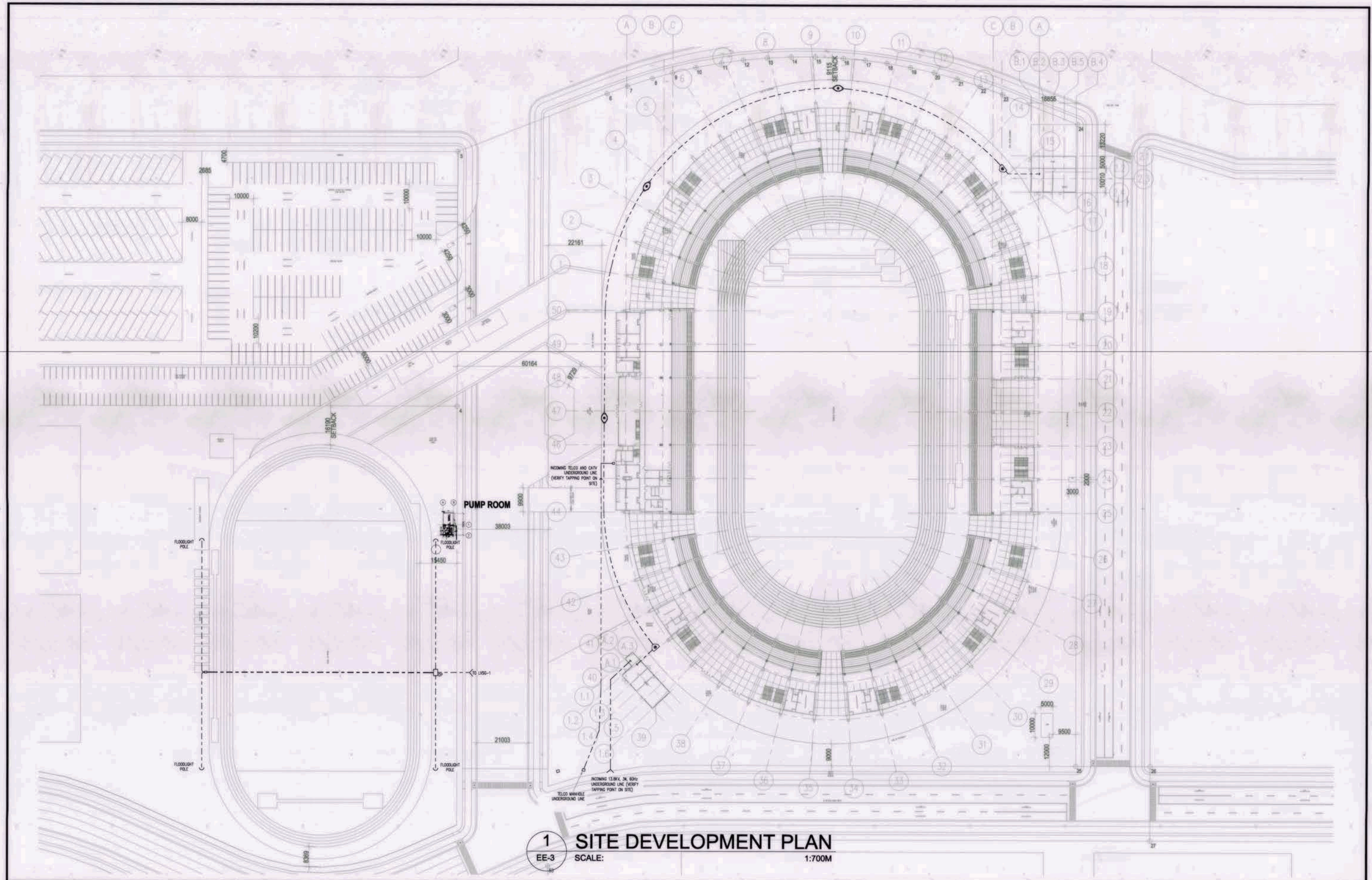


DETECTOR MOUNTING DETAIL (SURFACE MOUNTED)

1 EE-21 MISCELLANEOUS DETAILS PART 3

SCALE: NTS

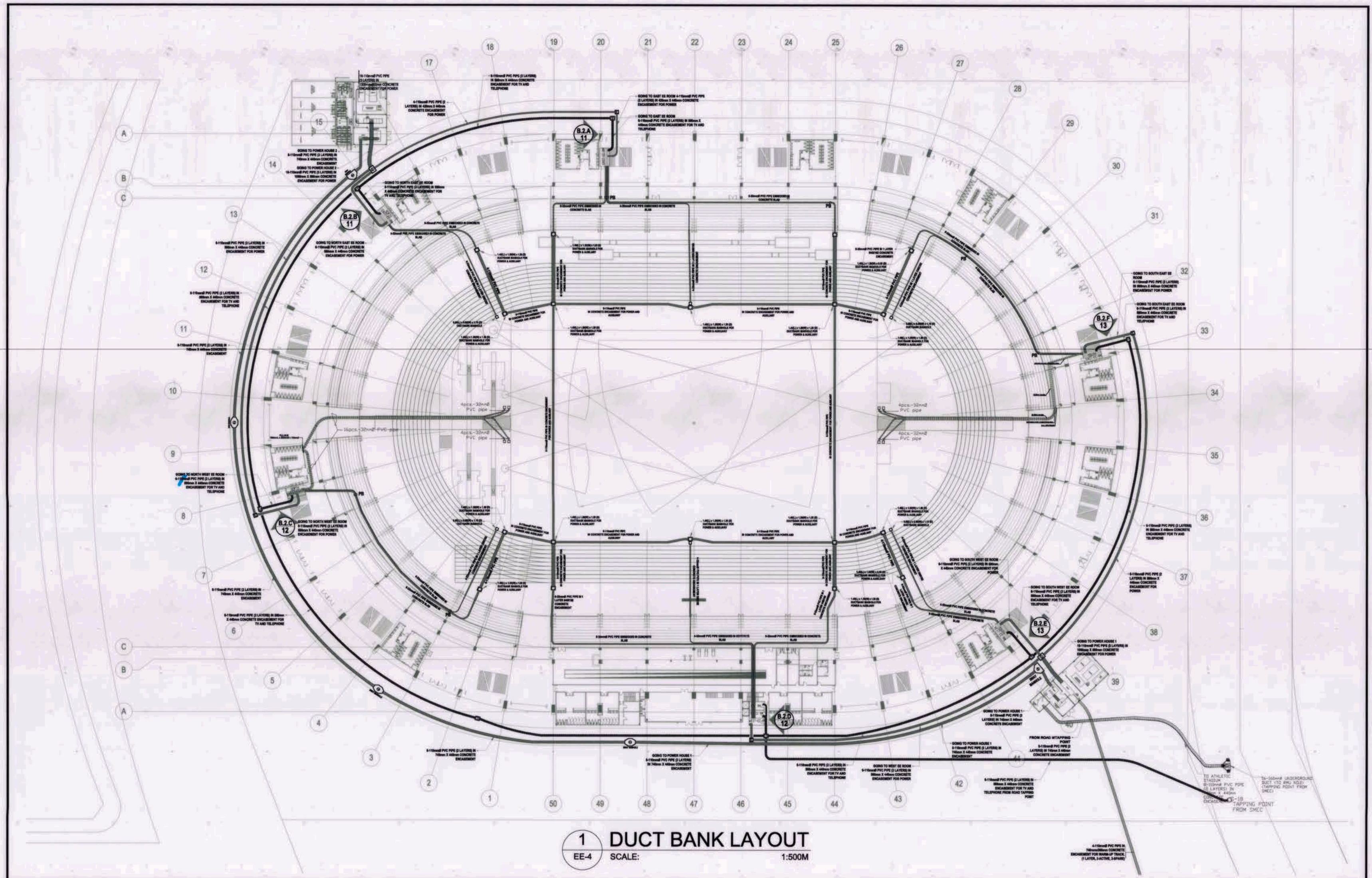
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	MISCELLANEOUS DETAILS PART 3	EE-21



1 SITE DEVELOPMENT PLAN

EE-3 SCALE: 1:700M

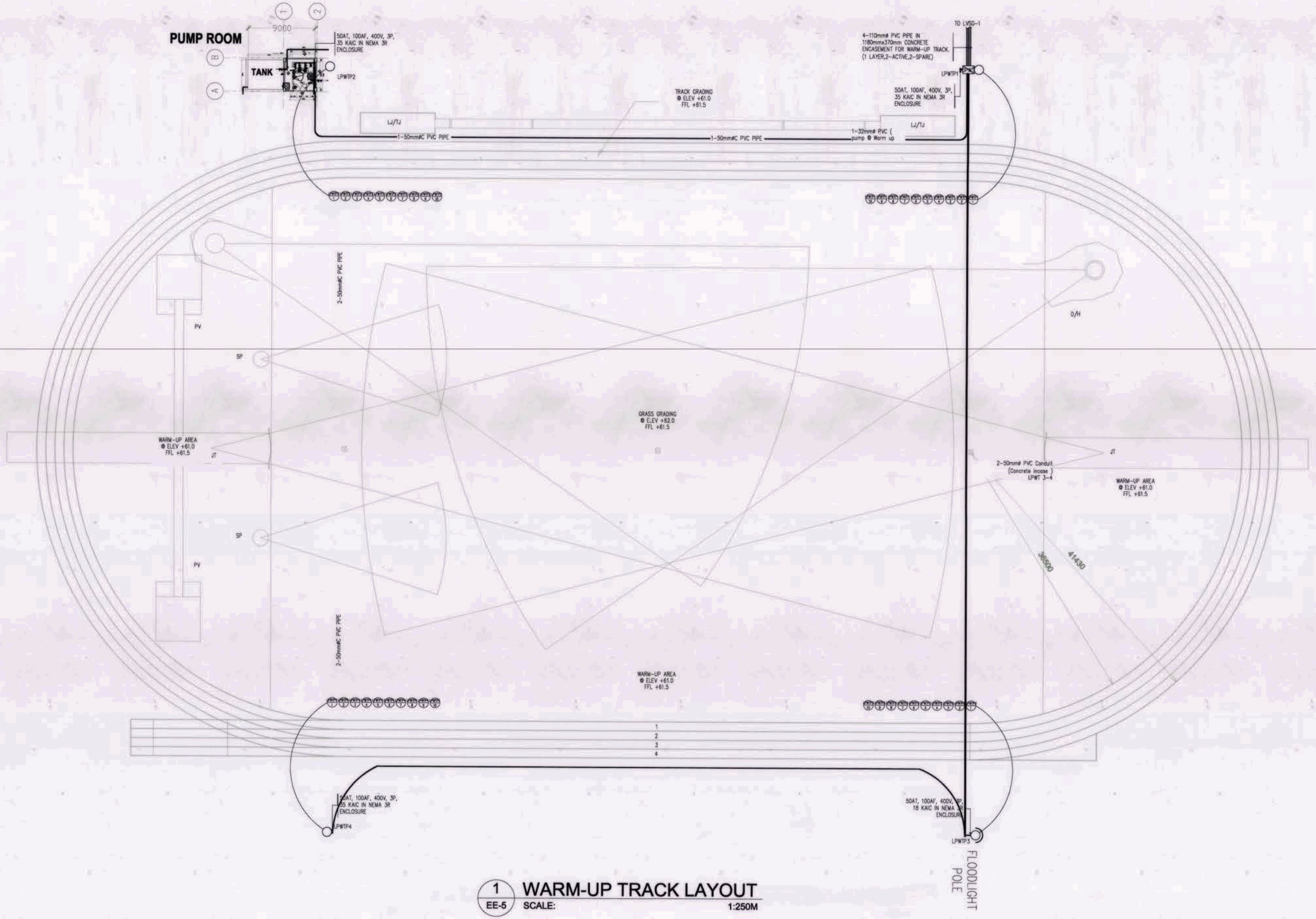
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	SITE DEVELOPMENT PLAN	EE-3



1 DUCT BANK LAYOUT

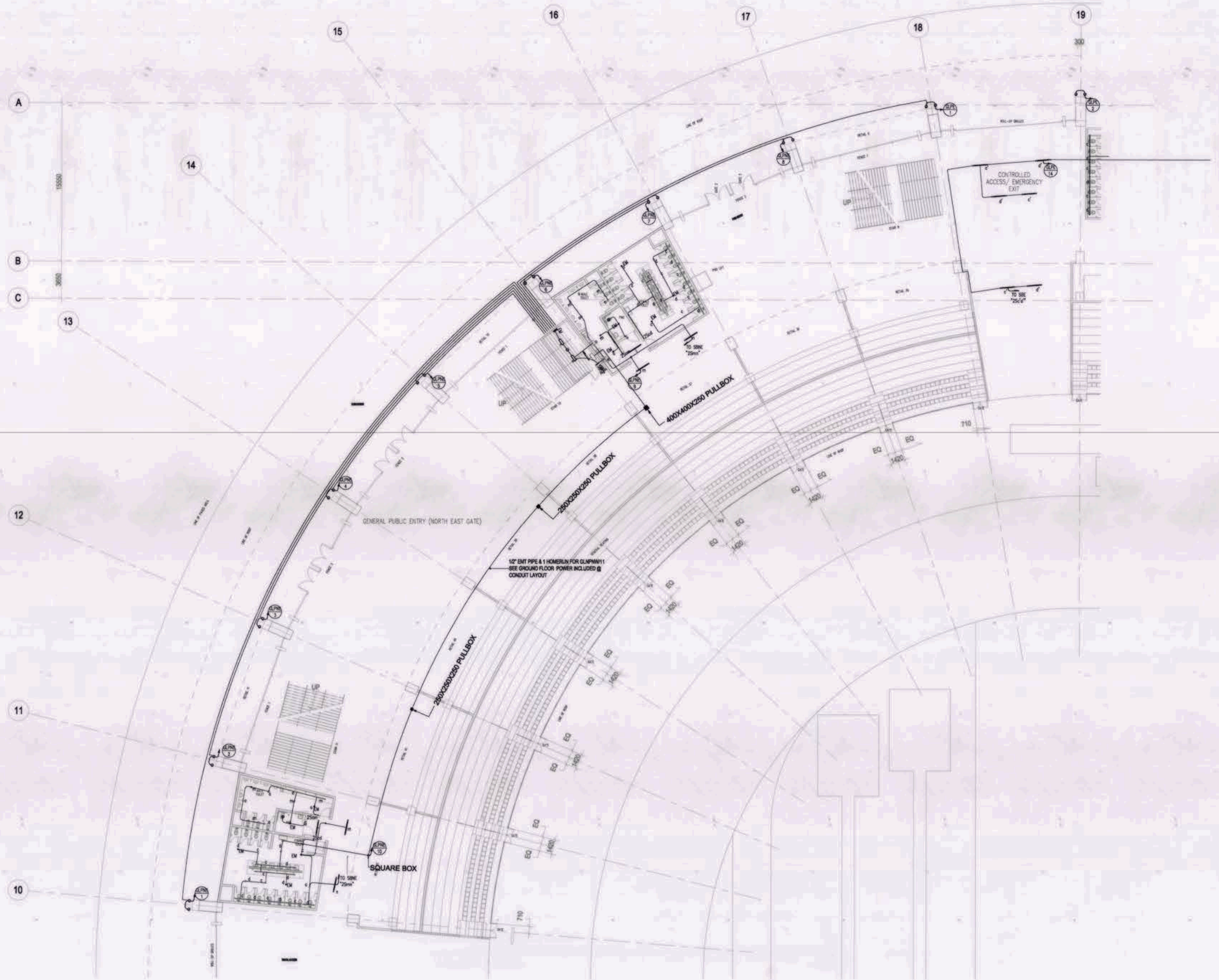
EE-4 SCALE: 1:500M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON PRESIDENT PATRICK NICHOLAS P. DAVID PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION 1600 E. RODRIGUEZ SR. AVENUE CUBAO, QUEZON CITY TEL #(02)954-4152 to 59 EMAIL: www.hcc.com.ph ANGELITO L. OLLERES PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants 8th Floor Aurora Metropolitan Bldg. 1645, Aurora Blvd. Quezon City Philippines 111 Tel. (632) 421-2571 to 74 Fax (632) 421-2431 Email : filipinasdravo@yahoo.com.ph Website: www.drahvoec.com ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS 9th Flr. Felino Bldg., 108 K.A. Robles St., Legaspi Village, Makati City, 1229 Philippines * Tel. Nos. 817-8291 to 98 VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	ELECTRICAL DUCT BANK LAYOUT	EE-4



1 / EE-5 **WARM-UP TRACK LAYOUT**
SCALE: 1:250M

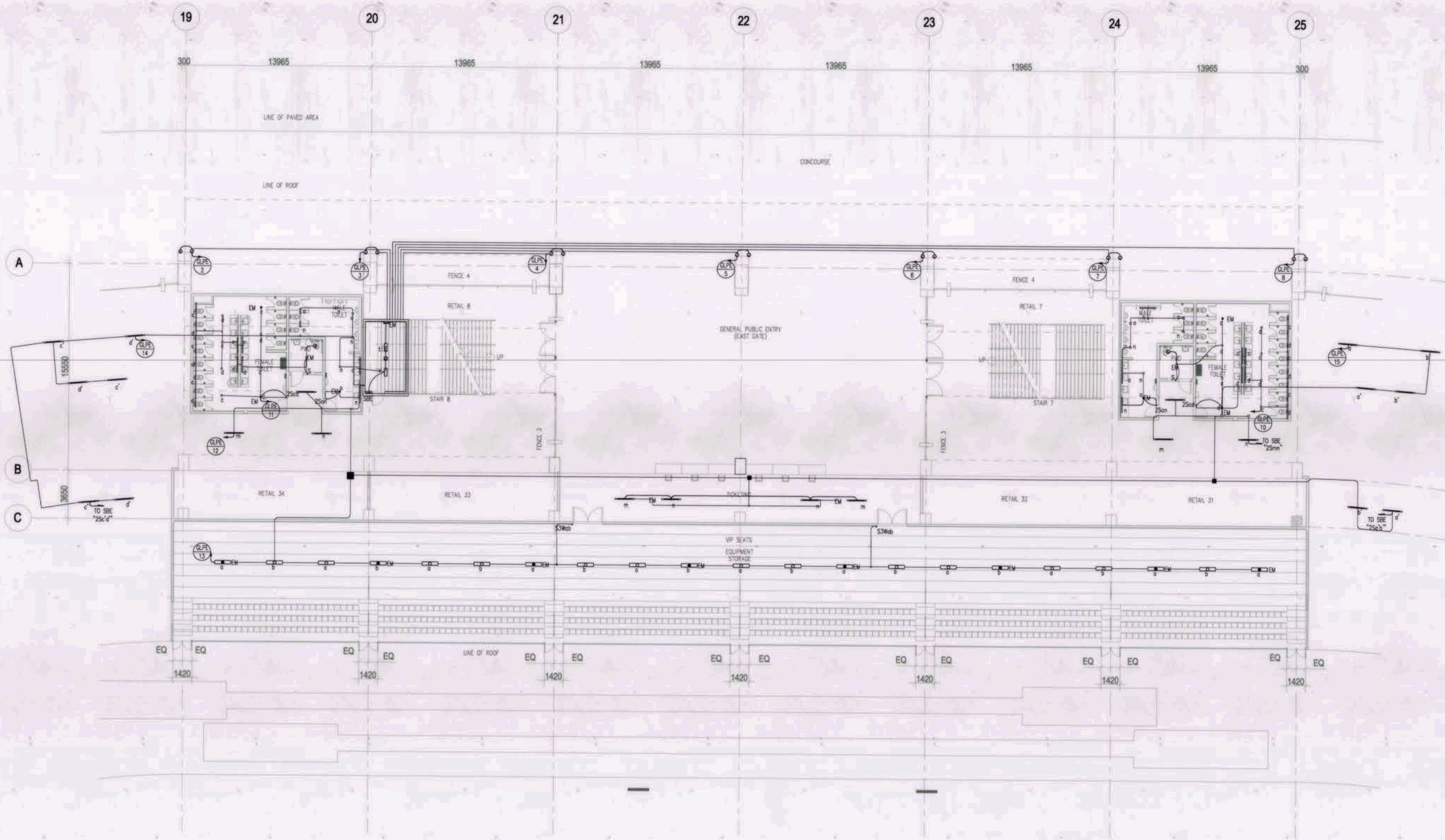
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT; PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION, 1836 E. RODRIGUEZ SR. AVENUE CUBAO, QUEZON CITY, TEL #(632)654-4152 to 59, EMAIL: www.hcc.com.ph; ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants, 5th Floor Aurora Milestone Bldg., 1045 Aurora Blvd., Quezon City, Philippines 111, Tel. (632) 421-2571 to 74, Fax. (632) 421-2431, Email : fildravo@hlo.com.ph, Website: www.fildravo.com; ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC.; ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS, 5th Flr. Fedora Bldg., 108 V.A. Rufino St., Legaspi Village, Makati City, 1229 Philippines * Tel. Nos. 8178311 to 16; VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING, NGAC PHASE 1A, ATHLETICS STADIUM (ELECTRICAL), NEW CLARK CITY, CAPAS TARLAC	WARM-UP TRACK LAYOUT	EE-5



1 EE-6.A **PARTIAL NORTH EAST GROUND FLOOR LIGHTING SYSTEM LAYOUT**

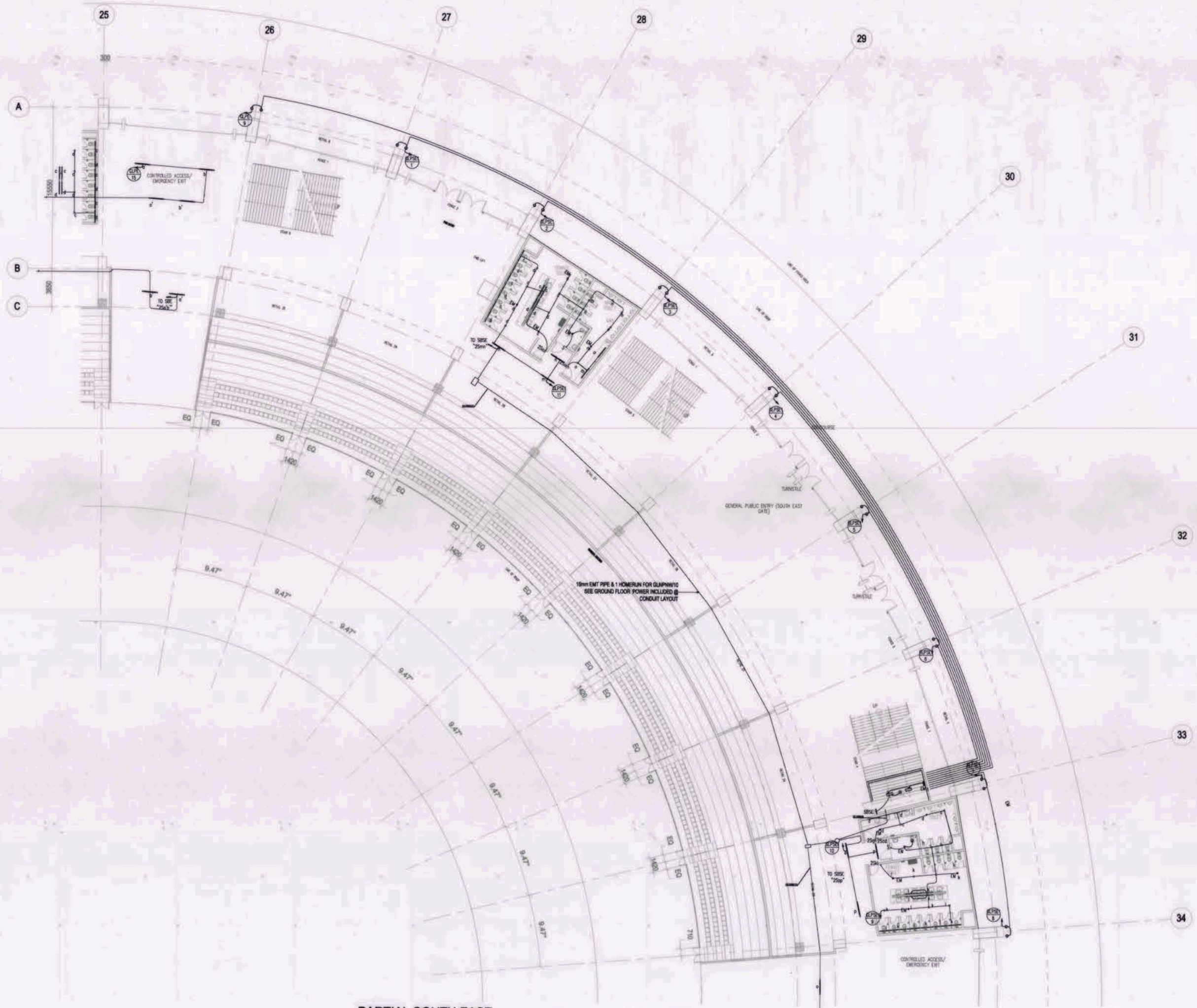
SCALE: 1:200M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL NORTH EAST GROUND FLOOR LIGHTING SYSTEM LAYOUT	EE-6.A



1 EE-6B **PARTIAL EAST GROUND FLOOR LIGHTING SYSTEM LAYOUT**
SCALE: 1:150M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL EAST GROUND FLOOR LIGHTING SYSTEM LAYOUT	EE-6.B

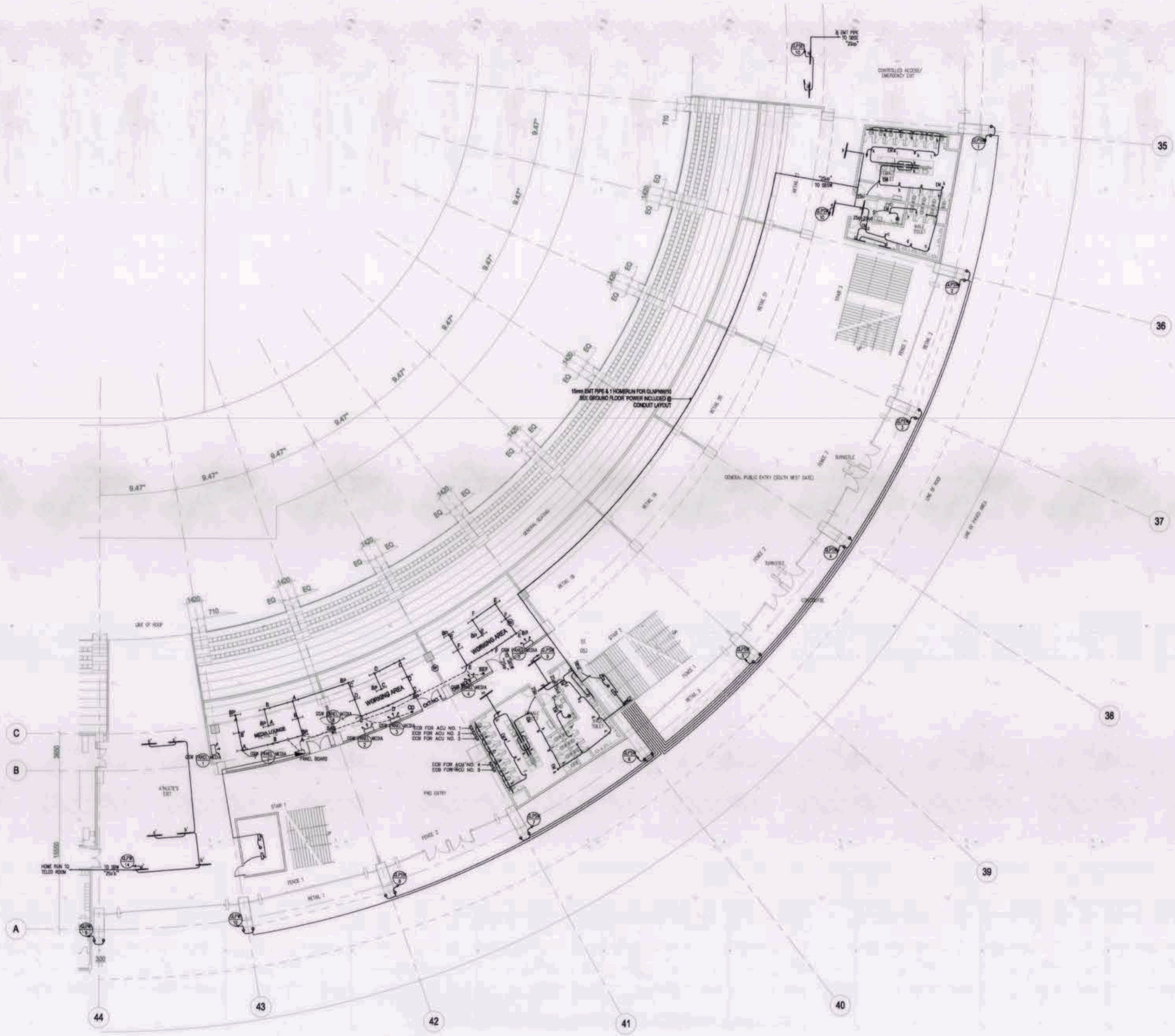


1 EE-6.C

PARTIAL SOUTH EAST
GROUND FLOOR LIGHTING SYSTEM LAYOUT
SCALE: 1:200M

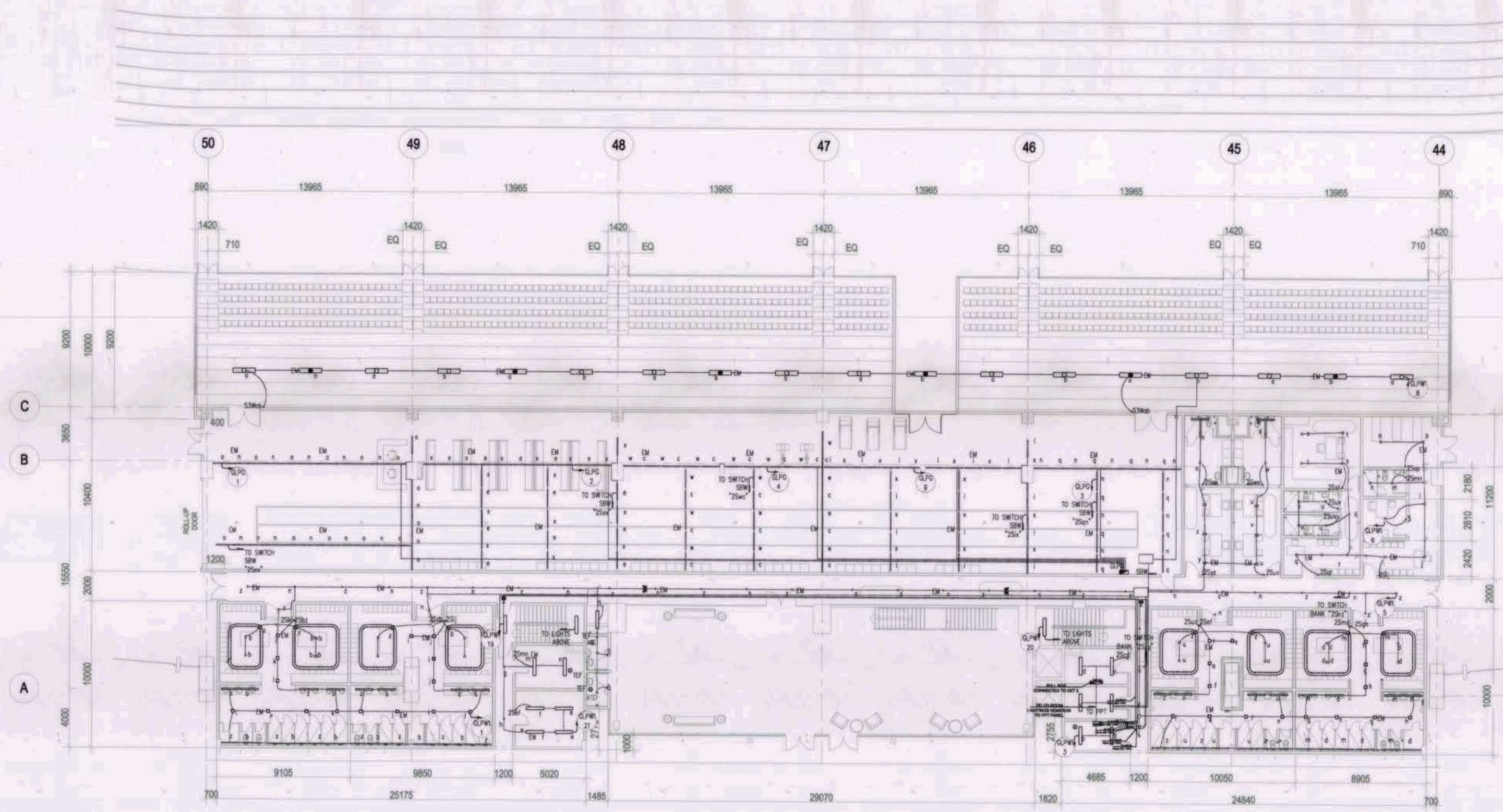
NOTE:
TYPICAL TO OTHER ZONES

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL SOUTH EAST GROUND FLOOR LIGHTING SYSTEM LAYOUT	EE-6.C



PARTIAL SOUTH WEST
1 GROUND FLOOR LIGHTING SYSTEM LAYOUT
EE-6D SCALE: 1:200M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Steel, Inc. VIVENCIO B. DIZON PRESIDENT PATRICK NICHOLAS P.DAVID PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL SOUTH WEST GROUND FLOOR LIGHTING SYSTEM LAYOUT	EE-6.D



1 EE-6E

PARTIAL WEST
GROUND FLOOR LIGHTING SYSTEM LAYOUT
SCALE: 1:150M

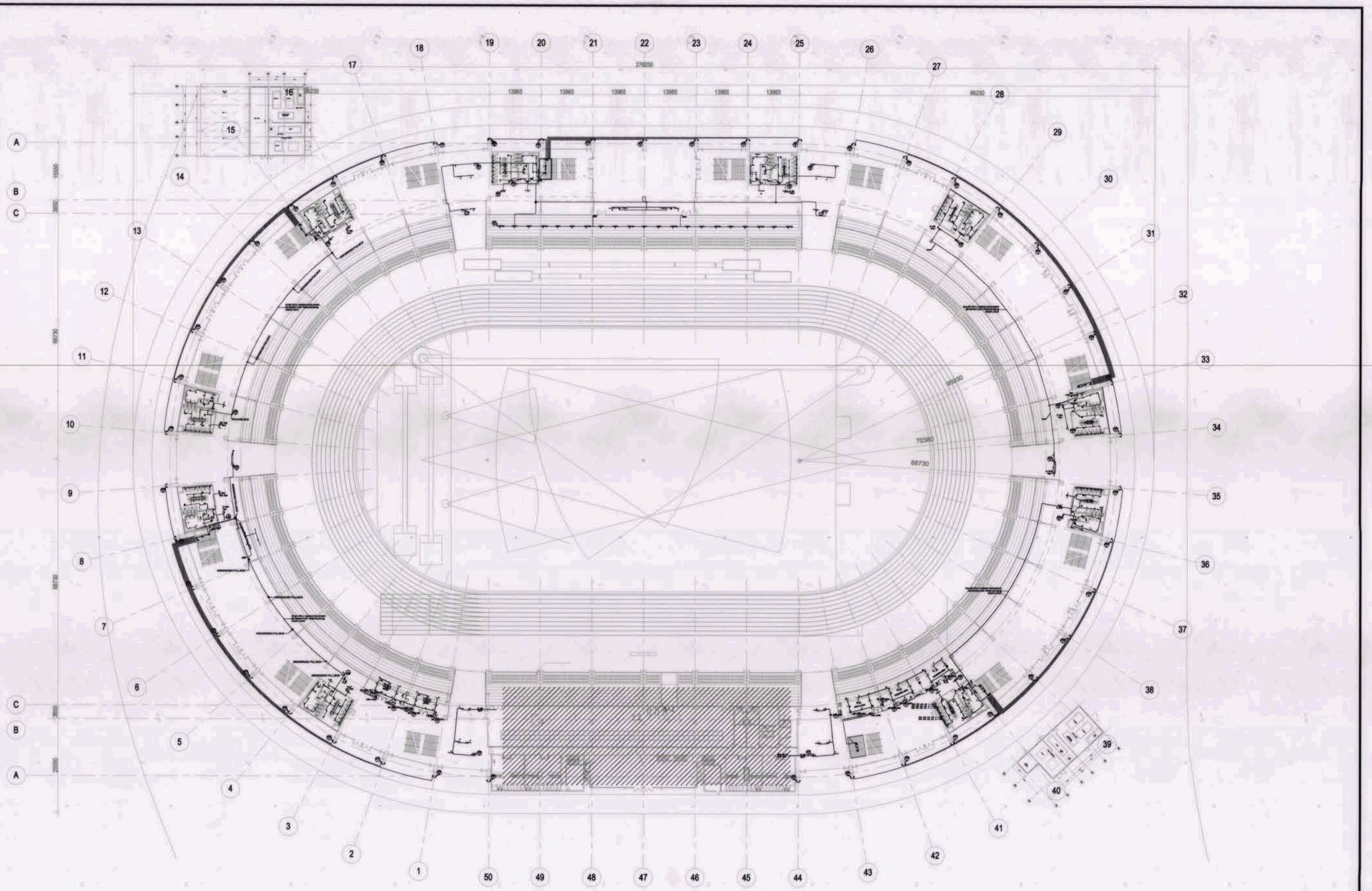
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT; PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION; ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants; ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC.; ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS; VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING; NGAC PHASE 1A; ATHLETICS STADIUM (ELECTRICAL); NEW CLARK CITY, CAPAS TARLAC	PARTIAL WEST GROUND FLOOR LIGHTING SYSTEM LAYOUT	EE-6.E



PARTIAL NORTH WEST
GROUND FLOOR LIGHTING SYSTEM LAYOUT

1 / EE-6F SCALE: 1:200M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTDI VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL NORTH WEST GROUND FLOOR LIGHTING SYSTEM LAYOUT	EE-6.F

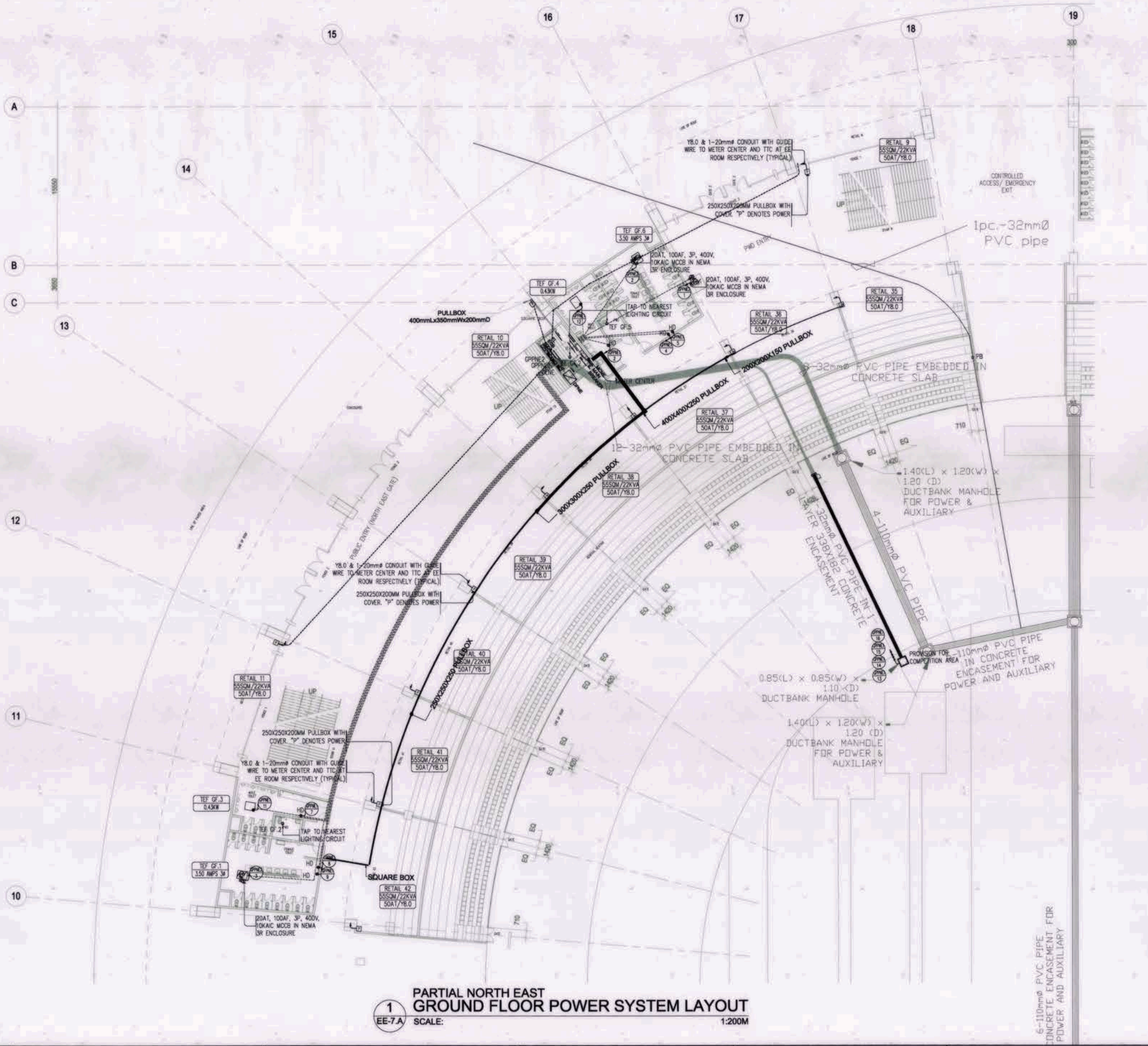


1 GROUND FLOOR LIGHTING SYSTEM LAYOUT

EE-6

SCALE: 1:500M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MID-Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	SITE DEVELOPMENT PLAN	EE-6

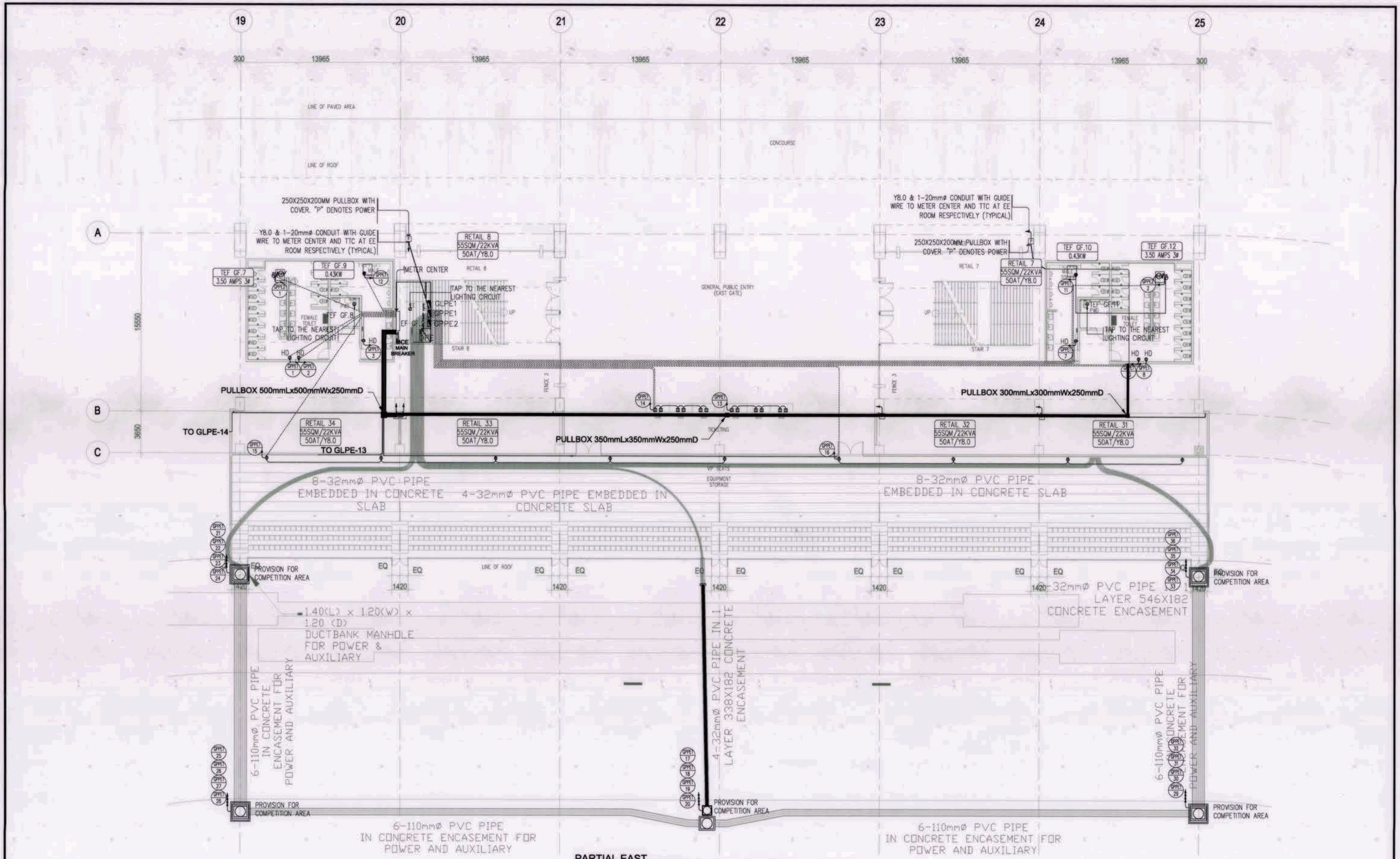


1 EE-7.A

PARTIAL NORTH EAST GROUND FLOOR POWER SYSTEM LAYOUT

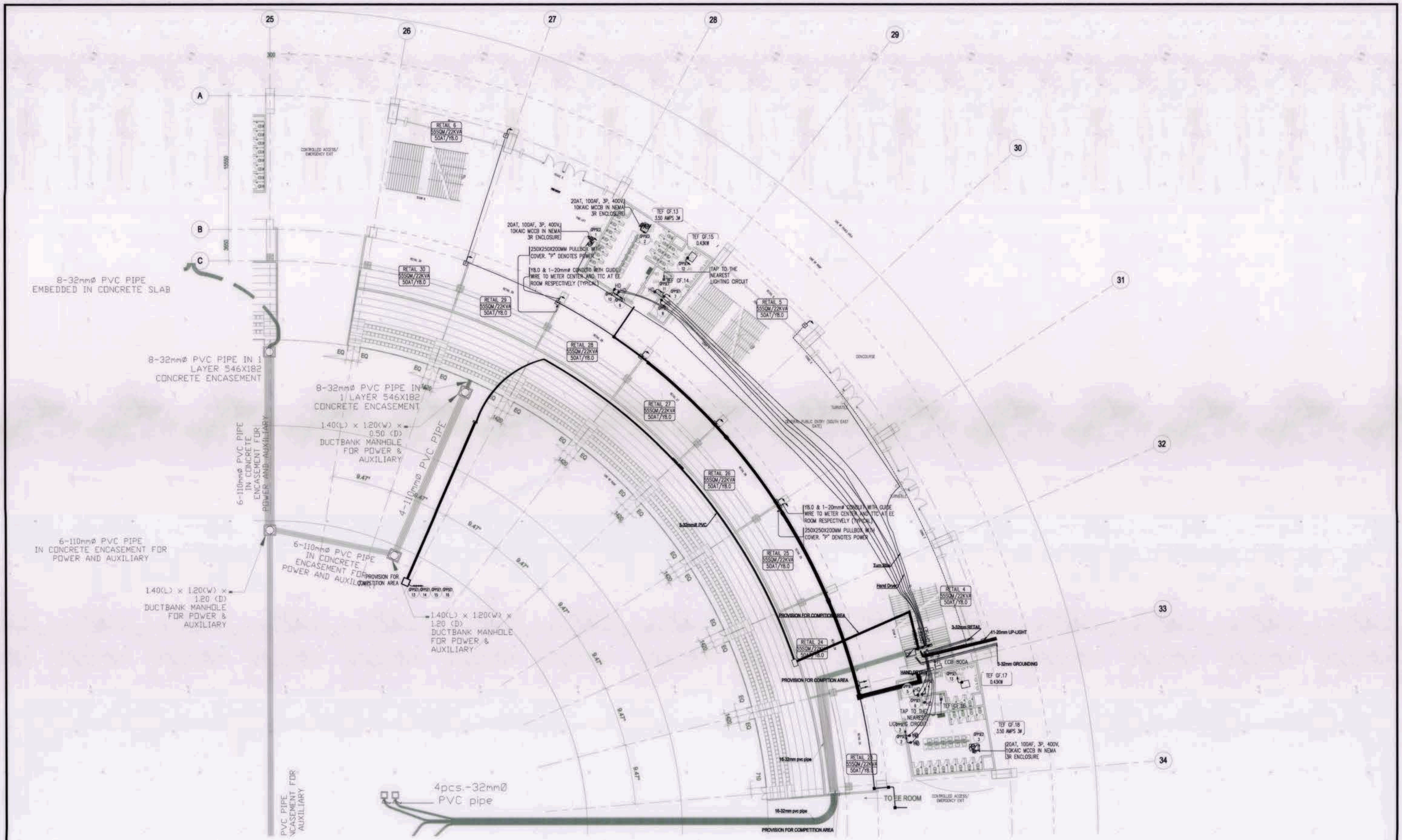
SCALE: 1:200M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO T. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL NORTH EAST GROUND FLOOR LIGHTING SYSTEM LAYOUT	EE-7.A



1 EE-7.B **PARTIAL EAST GROUND FLOOR POWER SYSTEM LAYOUT**
SCALE: 1:150M

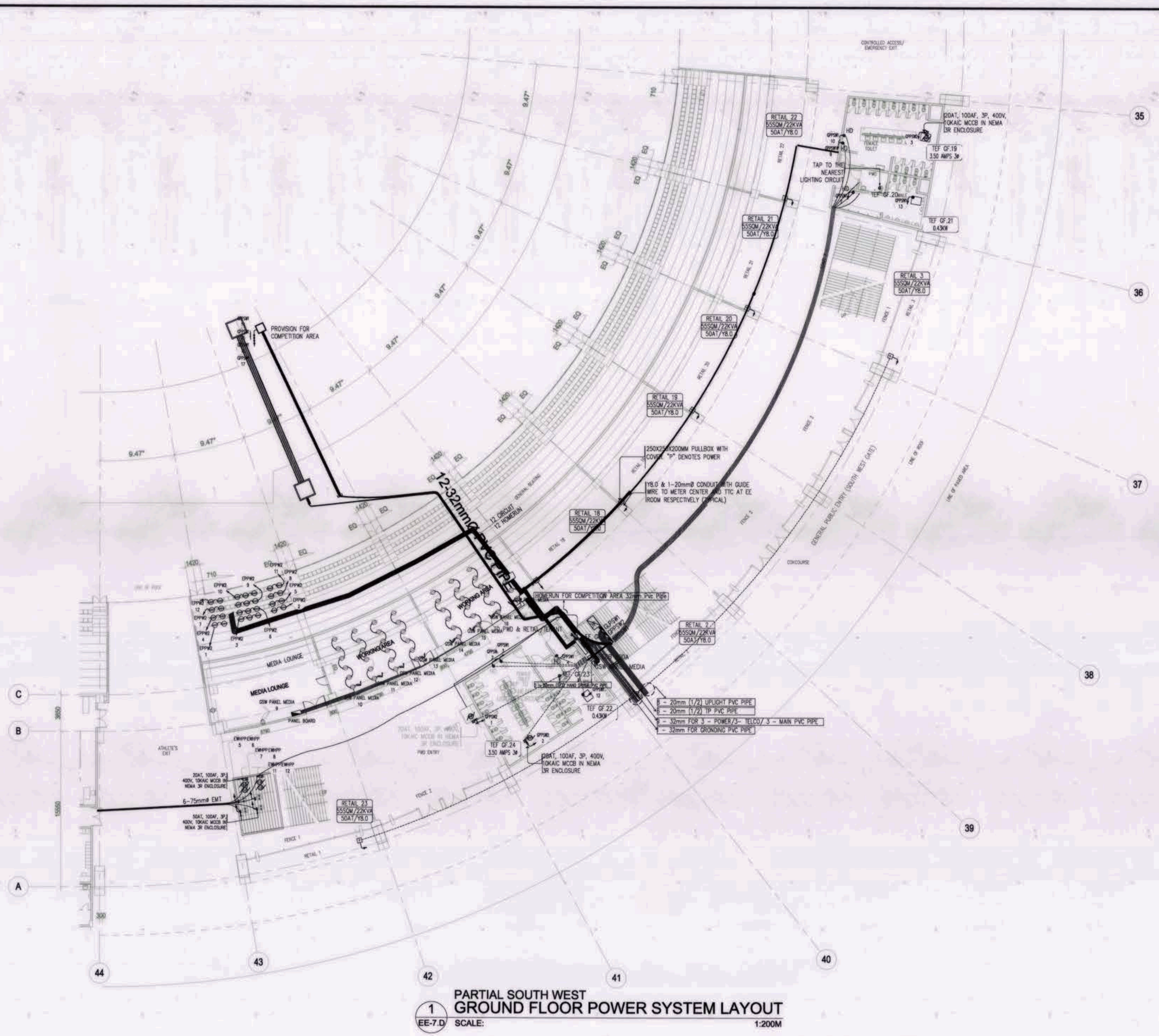
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION 1600 E. RODRIGUEZ SR. AVENUE CUBAO, QUEZON CITY TEL. #(02)954-4152 to 59 EMAIL: www.hcc.com.ph ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, DIRECTOR AND AUTHORIZED REPRESENTATIVE-PBP	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL EAST GROUND FLOOR POWER SYSTEM LAYOUT	EE-7.B



PARTIAL SOUTH EAST GROUND FLOOR POWER SYSTEM LAYOUT

1 EE-7.C SCALE: 1:200M

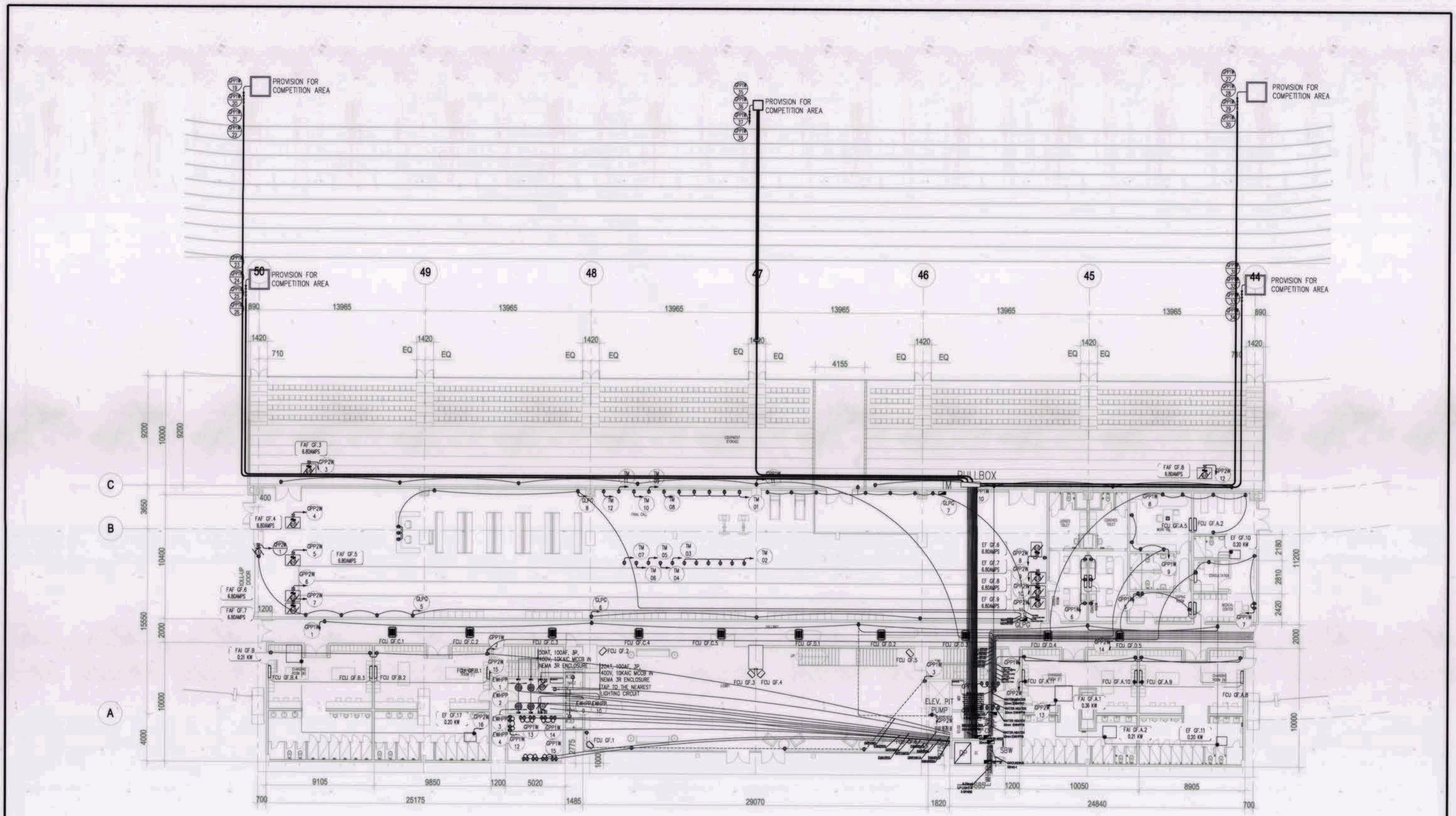
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:		SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION 1600 E. RODRIGUEZ SR. AVENUE CUBAO, QUEZON CITY TEL. #(02)954-4102 to 59 EMAIL: www.hcc.com.ph ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL SOUTH EAST GROUND FLOOR POWER SYSTEM LAYOUT	EE-7.C



PARTIAL SOUTH WEST
GROUND FLOOR POWER SYSTEM LAYOUT

1 / EE-7.D SCALE: 1:200M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Manila, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL SOUTH WEST GROUND FLOOR POWER SYSTEM LAYOUT	EE-7.D



1 EE-7.E

PARTIAL WEST GROUND FLOOR POWER SYSTEM LAYOUT

SCALE: 1:150M

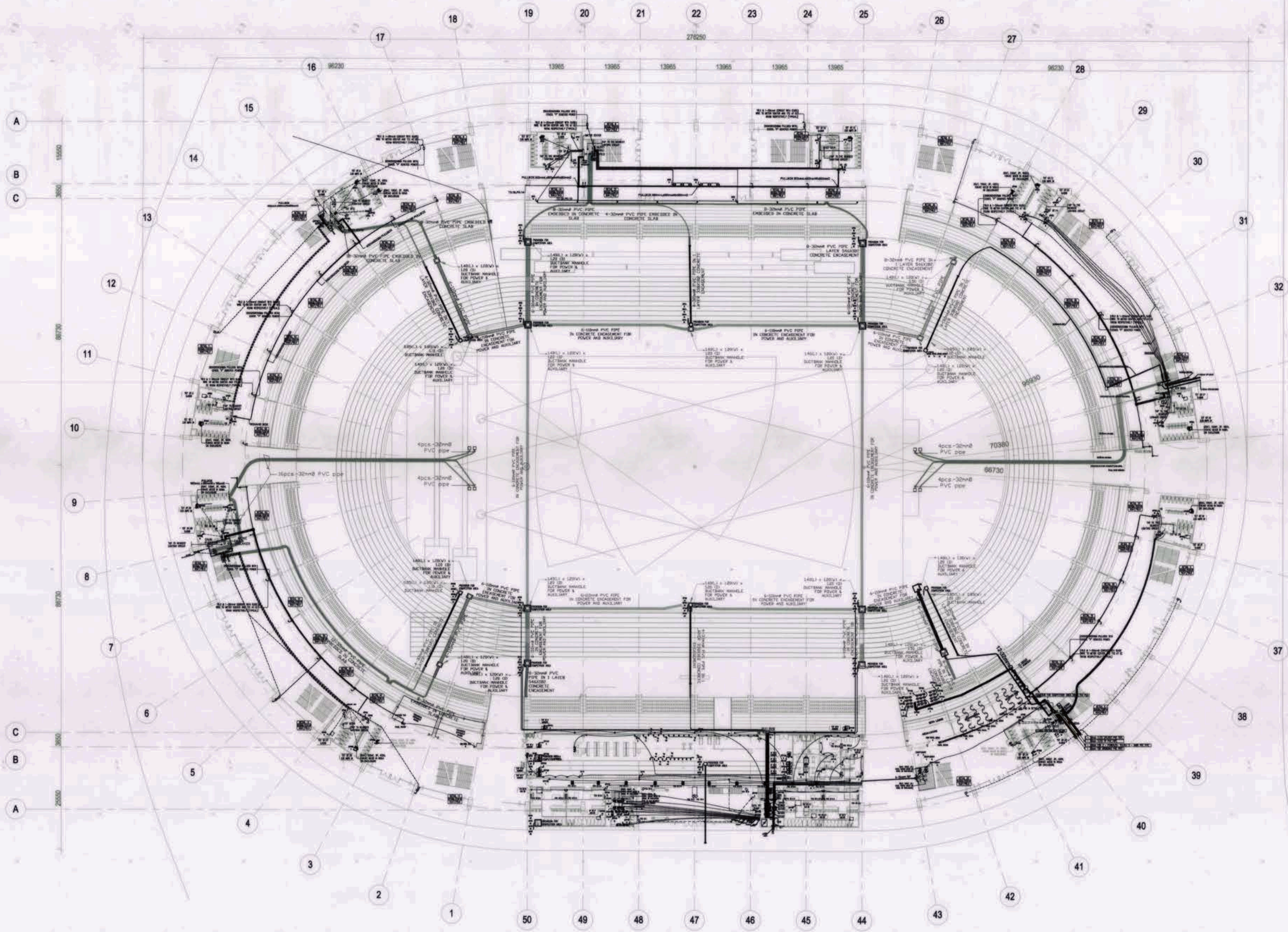
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc.	HILMARC'S CONSTRUCTION CORPORATION	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants	BANDAR HEBAT BUILDERS, INC.	TCGI ENGINEERS	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL WEST GROUND FLOOR POWER SYSTEM LAYOUT	EE-7.E
VIVENCIO B. DIZON PRESIDENT	ANGELITO L. OLLERES PROJECT MANAGER	ALFREDO R. REVILLA PROJECT MANAGER	ISAAC S. DAVID PRESIDENT	VIRGILIO A. MADRAZO PRC/BOT/CPCO			
PATRICK NICHOLAS P. DAVID PRESIDENT							



PARTIAL NORTH WEST
GROUND FLOOR POWER SYSTEM LAYOUT

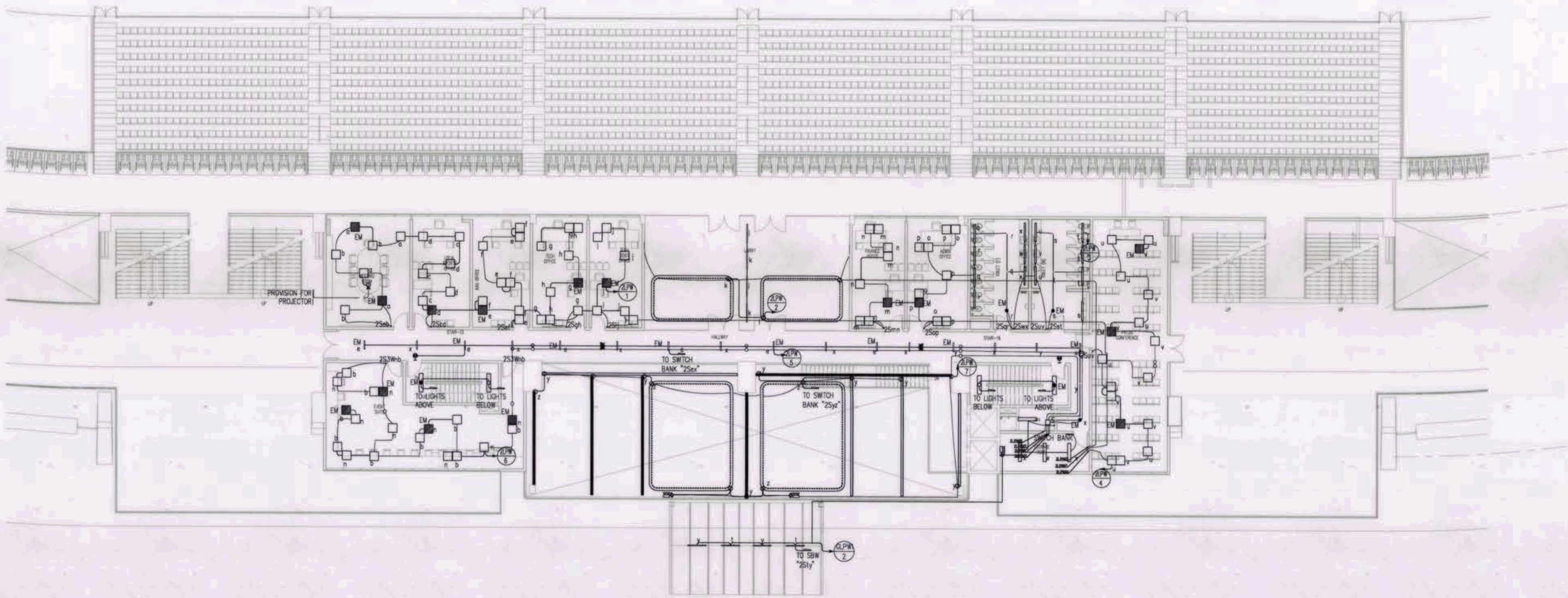
1 / EE-7.F SCALE: 1:200M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO I. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL NORTH WEST GROUND FLOOR POWER SYSTEM LAYOUT	EE-7.F



1 EE-7 **GROUND FLOOR POWER SYSTEM LAYOUT**
SCALE: 1:500M

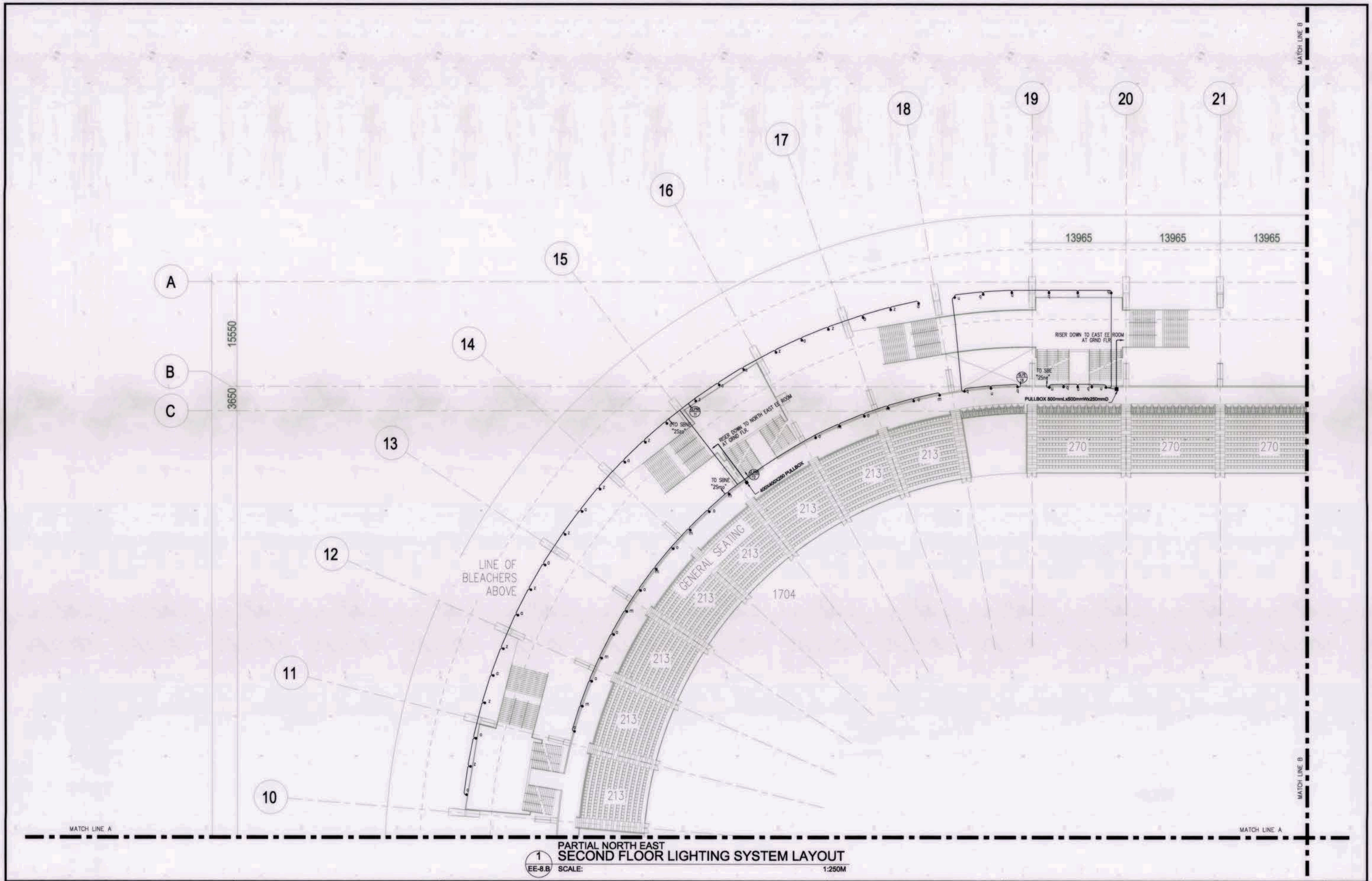
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	GROUND FLOOR POWER SYSTEM LAYOUT	EE-7



PARTIAL WEST
SECOND FLOOR LIGHTING SYSTEM LAYOUT

1 / EE-8.A SCALE: 1:150M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT; PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION; ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants; ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC.; ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS; VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL WEST SECOND FLOOR LIGHTING SYSTEM LAYOUT	EE-8.A

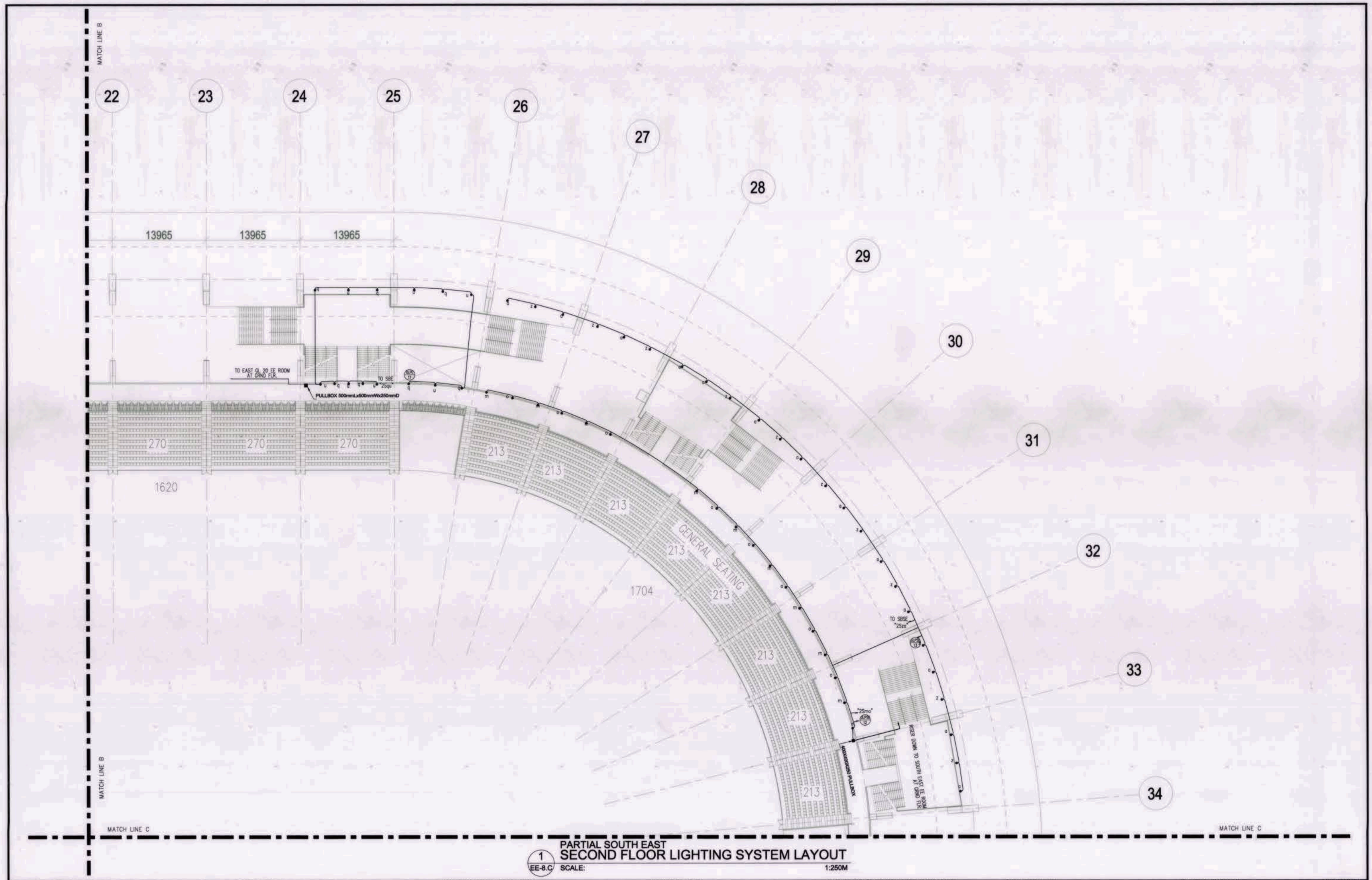


1 EE-8.B

PARTIAL NORTH EAST
SECOND FLOOR LIGHTING SYSTEM LAYOUT

SCALE: 1:250M

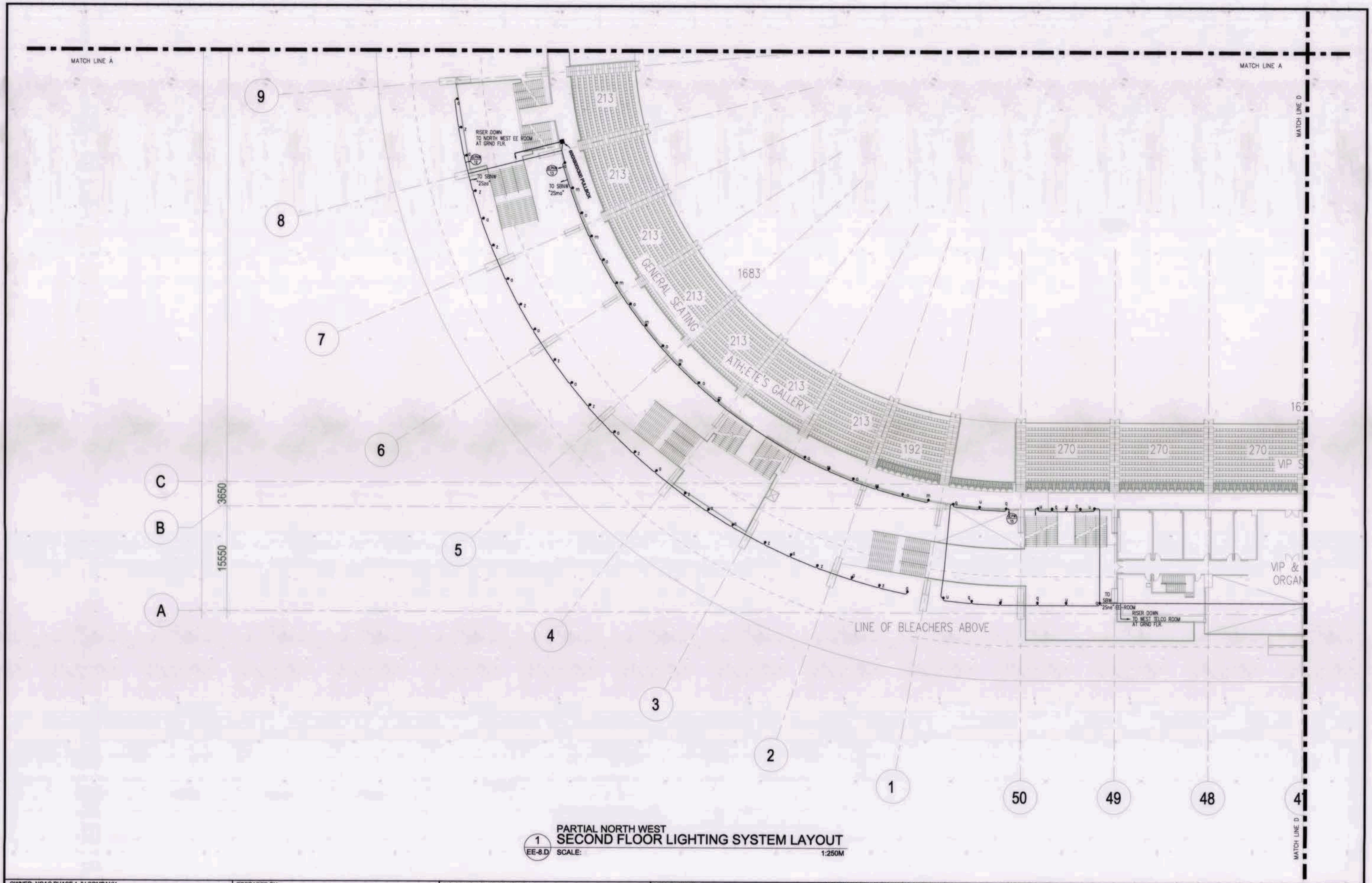
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL NORTH EAST SECOND FLOOR LIGHTING SYSTEM LAYOUT	EE-8.B



PARTIAL SOUTH EAST
SECOND FLOOR LIGHTING SYSTEM LAYOUT

1 / EE-8.C SCALE: 1:250M

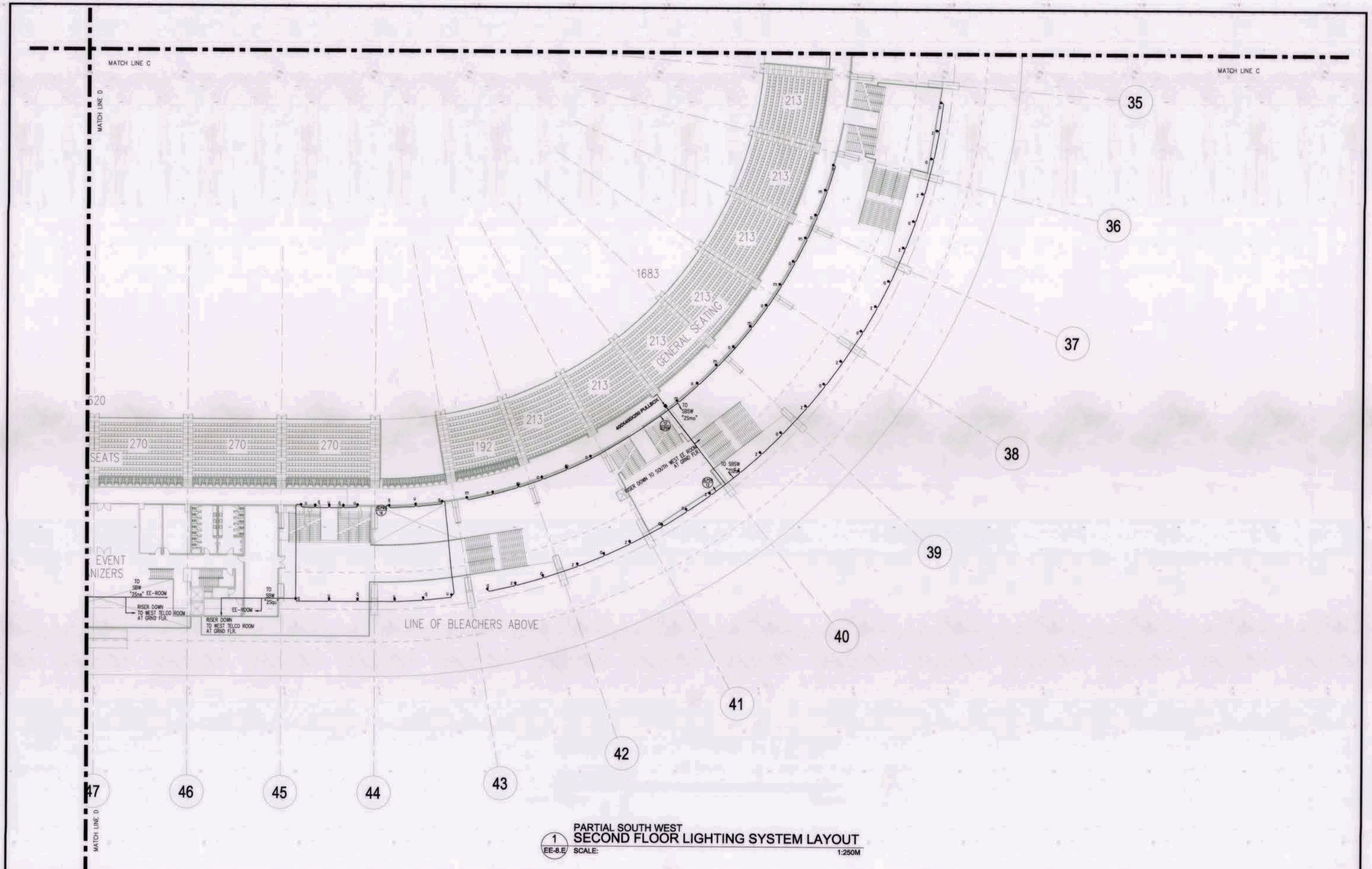
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA — VIVENCIO B. DIZON, PRESIDENT AND MTD Clark Inc. — PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL SOUTH EAST SECOND FLOOR LIGHTING SYSTEM LAYOUT	EE-8.C



1 EE-8.D

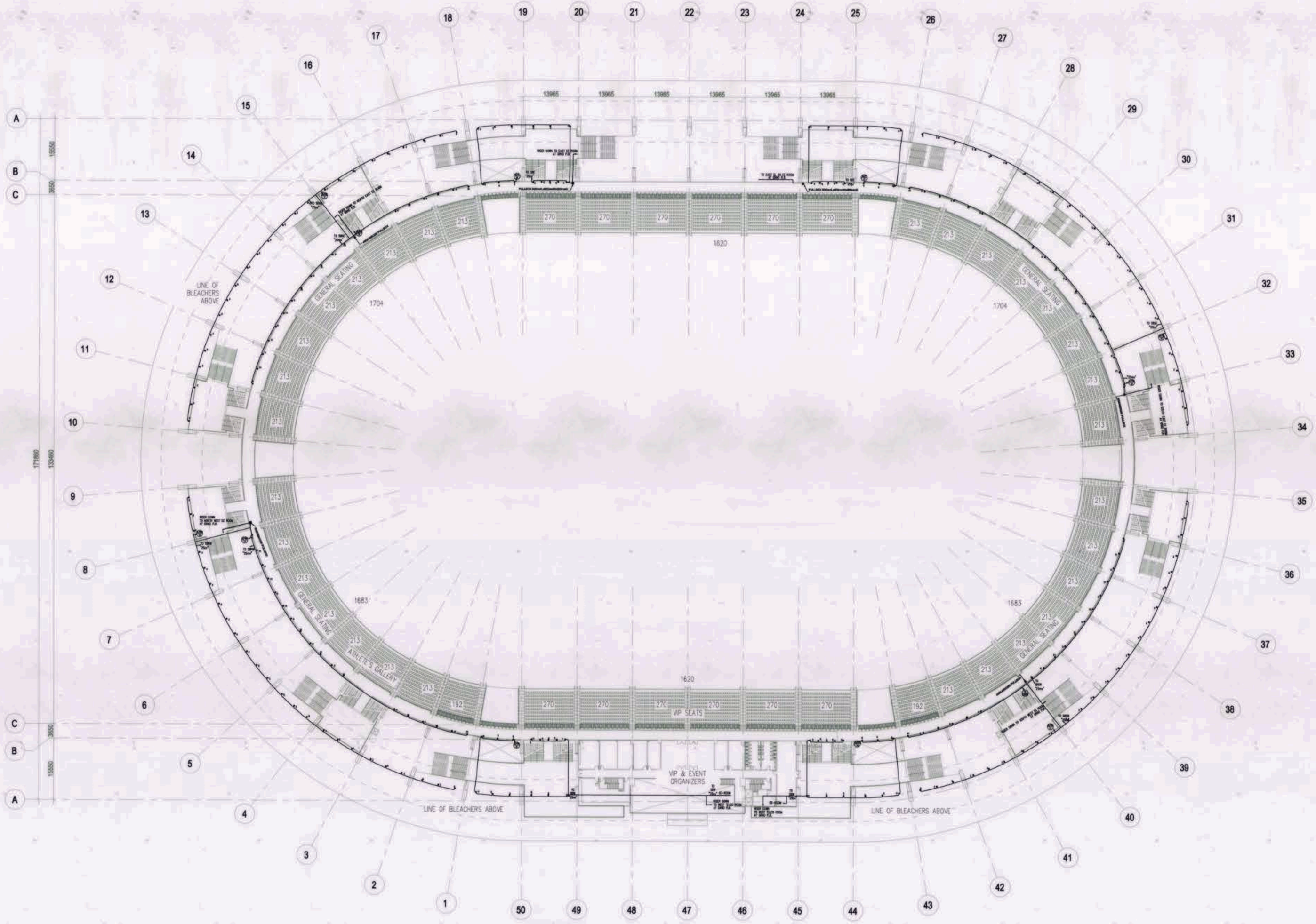
PARTIAL NORTH WEST
SECOND FLOOR LIGHTING SYSTEM LAYOUT
SCALE: 1:250M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc. VIVENCIO B. DIZON PRESIDENT; PATRICK NICHOLAS P.DAVID PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION; ANGELITO L. OLLERES PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants; ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC.; ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS; VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL NORTH WEST SECOND FLOOR LIGHTING SYSTEM LAYOUT	EE-8.D



1 EE-8.E PARTIAL SOUTH WEST
SECOND FLOOR LIGHTING SYSTEM LAYOUT
SCALE: 1:250M

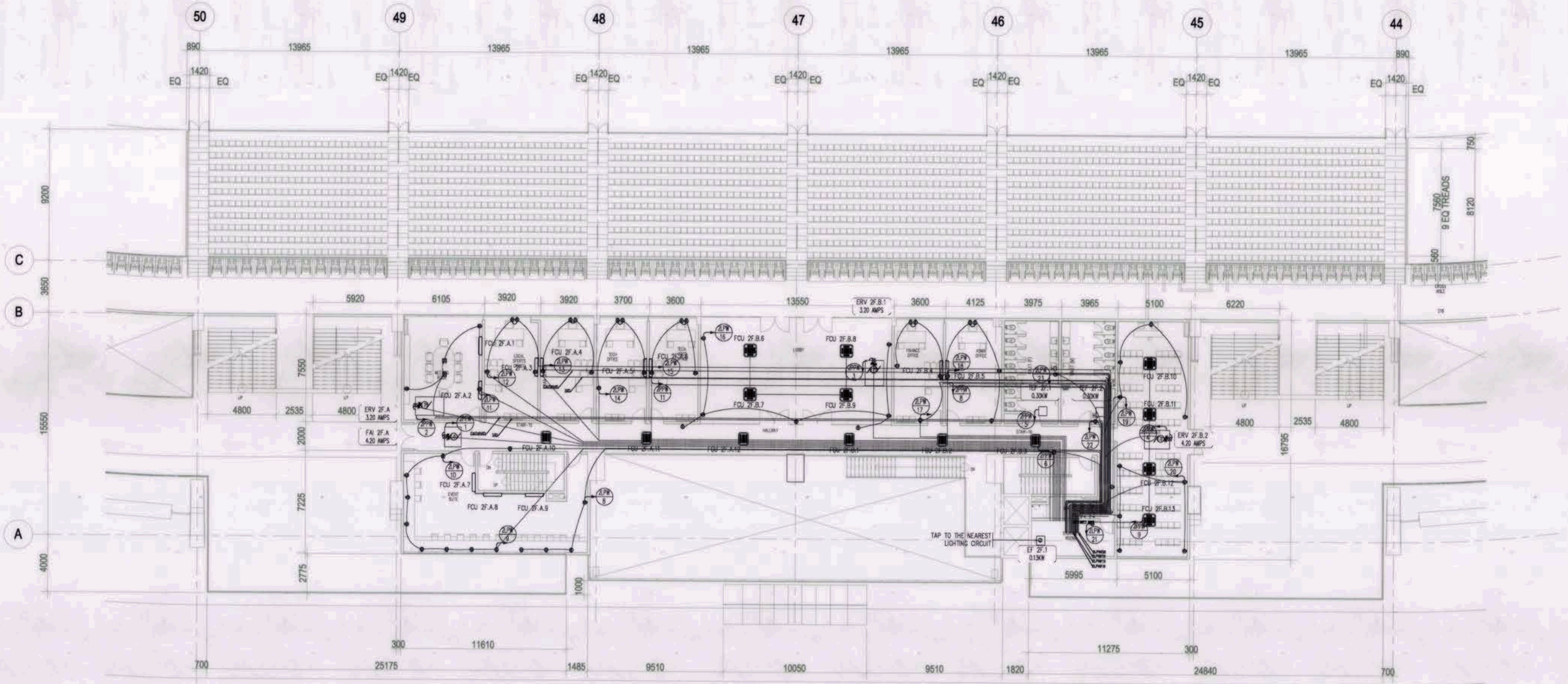
OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS R. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL SOUTH WEST SECOND FLOOR LIGHTING SYSTEM LAYOUT	EE-8.E



1 SECOND FLOOR LIGHTING SYSTEM LAYOUT

EE-8 SCALE: 1:500M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PROPRIETOR/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	SECOND FLOOR LIGHTING SYSTEM LAYOUT	EE-8



1 EE-9 PARTIAL WEST
SECOND FLOOR POWER SYSTEM LAYOUT
SCALE: 1:150M

OWNER: NGAC PHASE 1 JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P.DAVID, PRESIDENT	HILMARC'S CONSTRUCTION CORPORATION ANGELITO L. OLLERES, PROJECT MANAGER	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETICS STADIUM (ELECTRICAL) NEW CLARK CITY, CAPAS TARLAC	PARTIAL WEST SECOND FLOOR POWER SYSTEM LAYOUT	EE-9

LEGEND:

1	[illegible]	BASEMENT MECHANICAL PANEL BOARD W/ GROUND LUG (WALL MOUNTED) LOCATION: BASEMENT NEAR PLUMBING MOTORS
2	[illegible]	FIRE PUMP PANEL BOARD WITH GROUND LUG (WALL MOUNTED) LOCATION: BASEMENT NEAR FIRE PUMP
3	[illegible]	MAGNETIC COIL PANEL BOARD LOCATION: GROUND FLOOR BLDG-A ELECTRICAL RM-A2
4	[illegible]	ELEVATOR PANEL BOARD WITH GROUND LUG TERMINAL (WALL MOUNTED) LOCATION: GROUND FLOOR BLDG-A ELECTRICAL RM-A2
5	[illegible]	GROUND FLOOR EMERGENCY DISTRIBUTION PANEL BOARD WITH GROUND LUG TERMINAL LOCATION: GROUND FLOOR BLDG-A ELECTRICAL RM-A2
6	[illegible]	MAIN DISTRIBUTION PANEL BOARD - FREESTANDING W/ COMPLETE METERING & GROUND TERMINAL, DEAD FRONT SWING DOOR COVER AND FRONT SWING W/ FRONT GLASS PLP HOLE LOCATION: GROUND FLOOR BLDG-A ELECTRICAL RM-A2
7	[illegible]	MAIN DISTRIBUTION PANEL BOARD - FREESTANDING W/ COMPLETE METERING & GROUND LUG TERMINAL AND SAME AS ABOVE [illegible]
8	[illegible]	SAME AS [illegible] ONLY AT 2ND FLOOR
9	[illegible]	SAME ONLY AT 3RD FLOOR ELECTRICAL RM-A2
10	[illegible]	SAME ONLY AT 4TH FLOOR ELECTRICAL RM-A2
11	[illegible]	SAME ONLY AT 5TH FLOOR ELECTRICAL RM-A2
12	[illegible]	[illegible] FLOOR MECHANICAL DISTRIBUTION PANEL BOARD (WALL MOUNTED) LOCATION: [illegible]
13	[illegible]	[illegible] FLOOR MECHANICAL DISTRIBUTION PANEL BOARD (WALL MOUNTED) LOCATION: [illegible]
14	[illegible]	[illegible] FLOOR MECHANICAL DISTRIBUTION PANEL BOARD (WALL MOUNTED) LOCATION: [illegible]
15	[illegible]	[illegible] FLOOR MECHANICAL DISTRIBUTION PANEL BOARD (WALL MOUNTED) LOCATION: [illegible]
16	[illegible]	MAIN DISTRIBUTION PANEL BOARD - FREESTANDING W/ COMPLETE METERING & GROUND LUG TERMINAL, AND DEAD FRONT SWING DOOR COVER AND FRONT SWING DOOR [illegible] GLASS PLP HOLE
17	[illegible]	GROUND FLOOR EMERGENCY DISTRIBUTION PANEL BOARD WITH GROUND LUG TERMINAL (WALL MOUNTED) LOCATION: GROUND FLOOR BLDG-A1 ELECTRICAL RM-A1
18	[illegible]	2ND FLOOR EMERGENCY DISTRIBUTION PANEL BOARD WITH GROUND LUG TERMINAL (WALL MOUNTED)
[illegible]	[illegible]	[illegible]

ELECTRICAL NOTES AND SPECIFICATION:

1. THE ELECTRICAL INSTALLATION HEREIN DONE IN ACCORDANCE WITH PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE LOCAL RULES AND REGULATIONS AND THE REQUIREMENT OF THE UTILITY COMPANY.
2. ALL ELECTRICAL WORKS HEREIN EXECUTED BY EXPERIENCED ELECTRICIANS UNDER THE SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER. WORKS HEREIN DONE NEATLY PLACED, SECURELY FASTENED AND PROPERLY FINISHED.
3. SERVICE ENTRANCE THREE-PHASE, FOUR-WIRES PLUS GROUND, 13.8KV, 60HZ. PRIMARY AND SECONDARY VOLTAGE: 400Vac L-L/230Vac L-N.
4. ALL ELECTRICAL MATERIALS NEW AND APPROVED, AND CONFORM WITH THE PROVISION OF THE UNDERWRITERS LABORATORIES INC. IN EVERY CASE WHERE STANDARD HAS BEEN ESTABLISHED.
5. ELECTRICAL TRADE SIZE USED, A MINIMUM OF 15MMø FOR CONDUITS AND NO CASE WHERE THERE BE MORE THAN THE EQUIVALENT OF THREE QUARTER BENDS IN ANY ONE RUN.
6. ALL ELECTRICAL CONDUIT SHOULD BE PROTECTED AGAINST DAMAGE DURING CONSTRUCTION. ALL ENDS OF CONDUITS SHOULD BE PLUGGED TO PREVENT ENTRANCE OF WATER, MOISTURE AND FOREIGN MATTER AFTER INSTALLATION.
7. INSULATED CONDUCTOR THERMOPLASTIC WIRE 600V WERE USED IN CONDUIT. MINIMUM SIZE OF WIRE HEREIN WERE $3.5MM^2$ THW OR THHN FOR ALL LIGHTING AND POWER SYSTEM.
8. UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORKS, THE FOLLOWING WERE PERFORMED BY THE ELECTRICAL ENGINEER OF THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS ON FORM APPROVED BY THE OWNER'S REPRESENTATION.
   A. INSULATION RESISTANCE TEST 500Vac.
   B. GROUND RESISTANCE TEST (5 ohms)
   C. OPERATIONAL TEST
   D. PHASE SEQUENCE TEST
9. CONDUCTOR'S ARE COLOR-CODED AS FOLLOWS:
   PHASE A - RED
   PHASE B - YELLOW
   PHASE C - BLUE
   NEUTRAL - WHITE
   EARTH GROUND - GREEN
10. ALL SUB-FEEDER LINES WERE PROVIDED WITH ADDITIONAL GROUND WIRE IN ACCORDANCE WITH THE PHILIPPINE ELECTRICAL CODE TABLE 2.50.6.13 P.E.C 2017 PART 1 Vol.1 EDITION EVEN WHERE IT IS NOT SHOWN ON DRAWING. EQUIPMENT GROUNDING SHALL BE AS SHOWN ON DRAWINGS.
11. ALL WIRING SPLICING IN BOXES FOR POWER AND LIGHTING USED ARMAK BRAND ELECTRICAL TAPE FOR $5.5 MM^2$ THHN OR LOWER IN SIZE. WIRE COLOR-CODING MUST BE FOLLOWED.
12. ALL JUNCTION BOXES THAT ARE EXPOSED TO WEATHER ARE WEATHER PROOF ENCLOSURE ON TYPE FS CASH STEEL BOX.
13. A RENEWABLE CIRCUIT DIRECTORY WERE PROVIDED FOR EACH PANEL BOARD FOR FIELD MARKING OF FUNCTIONS AND NUMBER OF EACH BRAND CIRCUIT.
14. ALL POWER CONVENIENCE OUTLET WERE OF GROUNDING TYPE.
15. ALL ELECTRICAL NON-CURRENT CARRYING METALLIC PARTS WERE PROPERLY GROUNDED AS PER PEC.

MOUNTING HEIGHTS:

PANEL BOARD - 1900MM FROM TOP OF PANEL TO FLOOR FINISH
CONVENIENCE OUTLET - 300MM FROM CENTER OF DEVICE TO FLOOR FINISH
300MM FROM CENTER OF DEVICE TO TOP OF COUNTER
WALL SWITCHES - 1500MM FROM CENTER OF DEVICES TO FLOOR FINISH
ENCLOSED CIRCUIT BREAKERS
EXIT LIGHT - 1500MM FROM TOP OF DOOR
SPECIAL PURPOSE OUTLET - AS REQUIRED OF THE EQUIPMENT SERVICE

LIGHTING AND POWER LEGEND

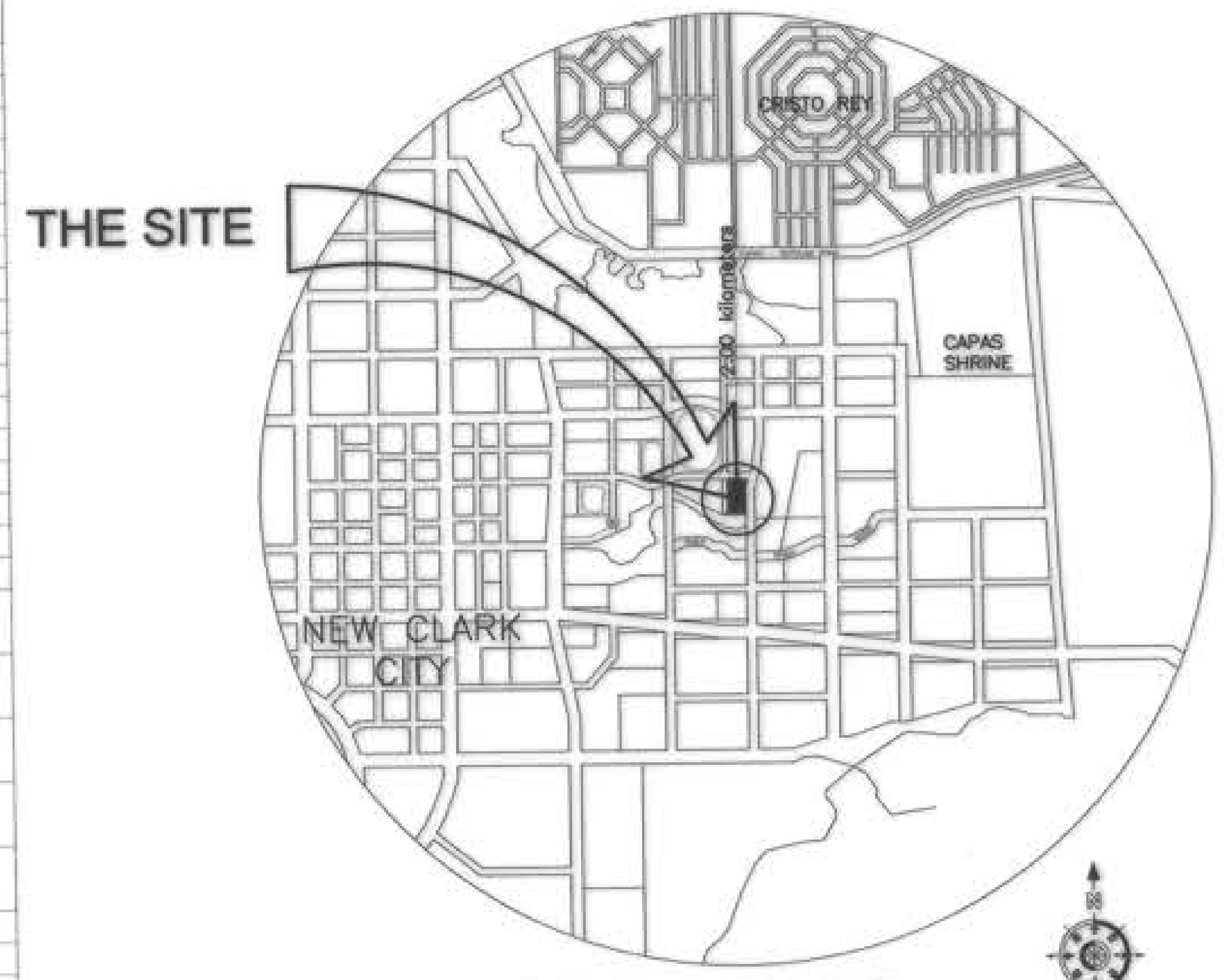
	6" LED PIN LIGHT RECESSED, WHITE FINISH, FROSTED GLASS - DOWNLIGHT (LF-1)
	4" LED PIN LIGHT RECESSED, WHITE FINISH, FROSTED GLASS - DOWNLIGHT (LF-2)
WW	ADJUSTABLE TYPE 127mmø LED WALL WASHER, WARM WHITE COLOR TEMPERATURE, WHITE FINISH, - SMART HALOGEN DOWNLIGHT (LF-3)
	190mm LED BRACKET WALL LIGHT, WARM WHITE COLOR TEMPERATURE - (LF-3)
	300mmø SURFACE MOUNTED MULTIPURPOSE LED DOWNLIGHT, WARM WHITE COLOR TEMPERATURE - (LF-5)
	160mmø SURFACE MOUNTED LED DOWNLIGHT, WARM WHITE COLOR TEMPERATURE - (LF-5)
	300mmø LED PENDANT LAMP, NEUTRAL WHITE COLOR TEMPERATURE - (LF-7)
	LED BULB ON PORCELAIN RECEPTACLE, NEUTRAL WHITE COLOR TEMPERATURE (LF-8)
	404mmø LED CEILING LAMPS - (LF-9)
	1200mm SURFACE MOUNTED T5 TUBULAR LED LIGHT, NEUTRAL WHITE COLOR TEMPERATURE - (LF-10)
	630mm SURFACE MOUNTED T5 TUBULAR LED LIGHT, NEUTRAL WHITE COLOR TEMPERATURE - (LF-11)
	1200mm T5 TUBULAR LED LIGHT, COOL WHITE COLOR TEMPERATURE - (LF-12)
	LINEAR LED TAPE, WARM WHITE COLOR TEMPERATURE - (LF-15)
	600mm WALL MOUNTED T8 TUBULAR LED LIGHT, NEUTRAL WHITE COLOR TEMPERATURE -(LF-16)
	1200MM TROFFER LIGHT
	UPLIGHT
	BOLLARD (FOOT PATHS)
	INGROUND UPLIGHT
/	DOUBLE ARM/SINGLE ARM PARKING POLE LAMP
	BASKETBALL COURT LIGHTS
	UNDERWATER STEP WALL LIGHT
	CONVENIENCE OUTLET, DUPLEX
	POP UP FLOOR OUTLET, DUPLEX
REF	CONVENIENCE OUTLET, DUPLEX, REFRIGERATOR
WH	WATER HEATER SPLICING BOX
WACU	AIRCON OUTLET, WINDOW TYPE
RH	RANGE HOOD OUTLET
	CASSETTE TYPE FCU
	WALL MOUNTED FCU
	CEILING MOUNTED INDOOR UNIT
	JET NOZZLE DIFFUSER
	FOUR-WAY SQUARE DIFFUSER
	TOILET EXHAUST FAN
	EMERGENCY LIGHT
MH	MAN HOLE
	CEILING FAN
FE	FIRE EXIT LIGHT
M	FRESH AIR FAN (SEE MECHANICAL PLANS)
	CEILING MOUNTED INDOOR UNIT (SEE MECHANICAL PLANS)

DRAWING INDEX

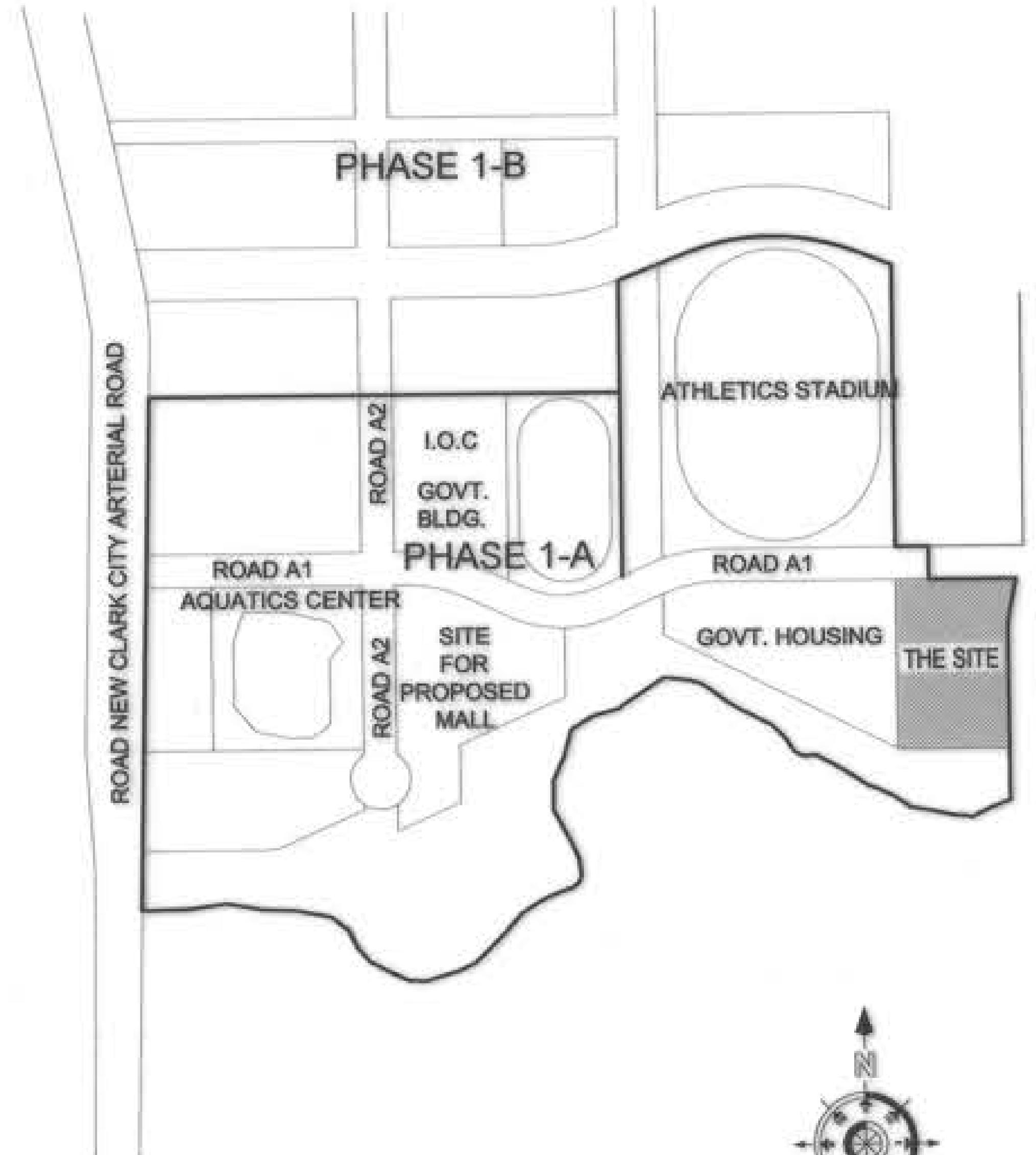
DESCRIPTION	SHEET NO.
GENERAL NOTES, LEGEND, LOCATION MAP, DRAWING INDEX, VICINITY MAP AND PERSPECTIVE	E-01
MAIN POWER DISTRIBUTION LAYOUT / SITE LIGHTING AND POWER LAYOUT	E-02
BUILDING "A" BASEMENT FLOOR LIGHTING LAYOUT	E-03
BUILDING "A" GROUND FLOOR LIGHTING LAYOUT	E-04
BUILDING "A" SECOND FLOOR LIGHTING LAYOUT	E-05
BUILDING "A" THIRD FLOOR LIGHTING LAYOUT	E-06
BUILDING "A" FOURTH FLOOR LIGHTING LAYOUT	E-07
BUILDING "A" FIFTH FLOOR LIGHTING LAYOUT	E-08
BUILDING "A" BASEMENT FLOOR POWER LAYOUT	E-09
BUILDING "A" GROUND FLOOR POWER LAYOUT	E-10
BUILDING "A" SECOND FLOOR POWER LAYOUT	E-11
BUILDING "A" THIRD FLOOR POWER LAYOUT	E-12
BUILDING "A" FOURTH FLOOR POWER LAYOUT	E-13
BUILDING "A" FIFTH FLOOR POWER LAYOUT	E-14
BUILDING "A" ROOF DECK POWER LAYOUT	E-15
BUILDING "A" GROUND FLOOR FEEDER AND SUBFEEDER LAYOUT	E-16
BUILDING "A" SECOND FLOOR FEEDER AND SUBFEEDER LAYOUT	E-17
BUILDING "A" THIRD FLOOR FEEDER AND SUBFEEDER LAYOUT	E-18
BUILDING "A" FOURTH FLOOR FEEDER AND SUBFEEDER LAYOUT	E-19
BUILDING "A" FIFTH FLOOR FEEDER AND SUBFEEDER LAYOUT	E-20
BUILDING "A" LOAD SCHEDULE 1	E-21
BUILDING "A" LOAD SCHEDULE 2	E-22
BUILDING "A" LOAD SCHEDULE 3	E-23
BUILDING "A" LOAD SCHEDULE 4	E-24
BUILDING "A" ELECTRICAL RISER DIAGRAM	E-25
BUILDING "A" POWER SINGLE LINE DIAGRAM	E-26
BUILDING "B" GROUND FLOOR LIGHTING LAYOUT PLAN	E-27
BUILDING "B" SECOND FLOOR LIGHTING LAYOUT PLAN	E-28
BUILDING "B" THIRD FLOOR LIGHTING LAYOUT PLAN	E-29
BUILDING "B" FOURTH FLOOR LIGHTING LAYOUT PLAN	E-30
BUILDING "B" FIFTH FLOOR LIGHTING LAYOUT PLAN	E-31
BUILDING "B" GROUND FLOOR POWER LAYOUT PLAN	E-32
BUILDING "B" SECOND FLOOR POWER LAYOUT PLAN	E-33
BUILDING "B" THIRD FLOOR POWER LAYOUT PLAN	E-34
BUILDING "B" FOURTH FLOOR POWER LAYOUT PLAN	E-35
BUILDING "B" FIFTH FLOOR POWER LAYOUT PLAN	E-36
BUILDING "B" ROOF DECK POWER LAYOUT PLAN	E-37
BUILDING "B" GROUND FLOOR FEEDER AND SUB FEEDER LAYOUT	E-38
BUILDING "B" SECOND FLOOR FEEDER AND SUBFEEDER LAYOUT	E-39
BUILDING "B" THIRD FLOOR FEEDER AND SUBFEEDER LAYOUT	E-40
BUILDING "B" FOURTH FLOOR FEEDER AND SUBFEEDER LAYOUT	E-41
BUILDING "B" FIFTH FLOOR FEEDER AND SUBFEEDER LAYOUT	E-42
BUILDING "B" LOAD SCHEDULE 1	E-43
BUILDING "B" LOAD SCHEDULE 2	E-44
BUILDING "B" LOAD SCHEDULE 3	E-45
BUILDING "B" LOAD SCHEDULE 4	E-46
BUILDING "B" ELECTRICAL RISER DIAGRAM	E-47
BUILDING "B" POWER SINGLE LINE DIAGRAM	E-48
POWER SINGLE LINE DIAGRAM	E-49
ELECTRICAL ROOM GROUNDING LAYOUT, BUILDING "A"	E-50
ELECTRICAL ROOM GROUNDING LAYOUT, BUILDING "B"	E-51
POWERHOUSE LIGHTING LAYOUT, POWER LAYOUT, CABLE TRAY AND GROUNDING LAYOUT	E-52
POWERHOUSE TRANSFORMER LAYOUT SECTION DETAILS AND LOAD SCHEDULE	E-53
TYPICAL SCHEMATIC LINE DIAGRAM, BLOW UP PLANS FOR STUDIO/HANDICAPPED PANEL BOARD AND SINGLE LINE SCHEMATIC DIAGRAM FOR ELECTRICAL, TELCO AND CATV	E-54
LIGHTNING ARRESTER AND MISCELLANEOUS DETAILS	E-55
MANHOLE DETAILS	E-56



1 / E-01 **PERSPECTIVE** SCALE NTS

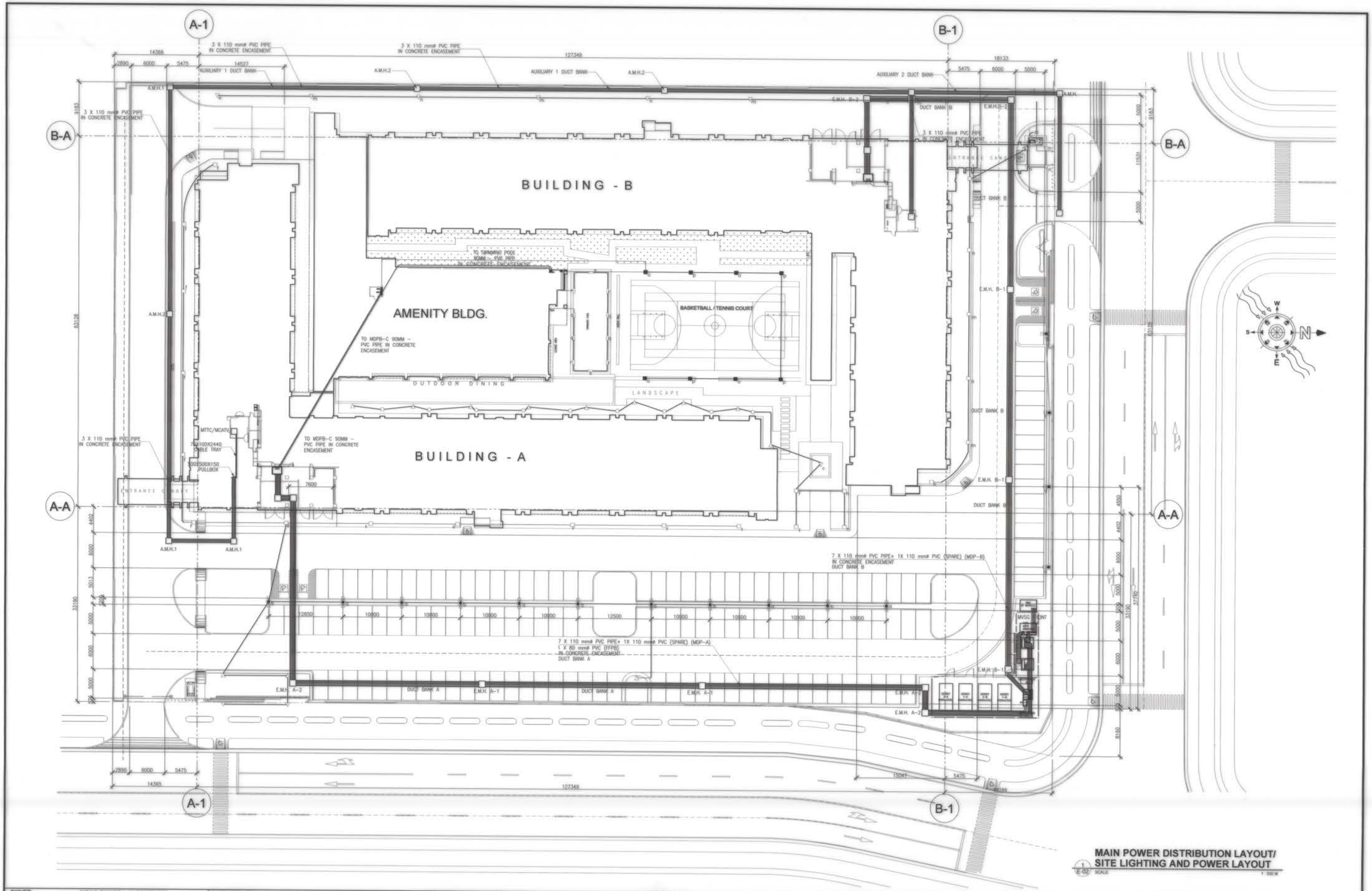


1 / E-01 **VICINITY MAP** SCALE NTS



3 / E-01 **LOCATION MAP** SCALE NTS

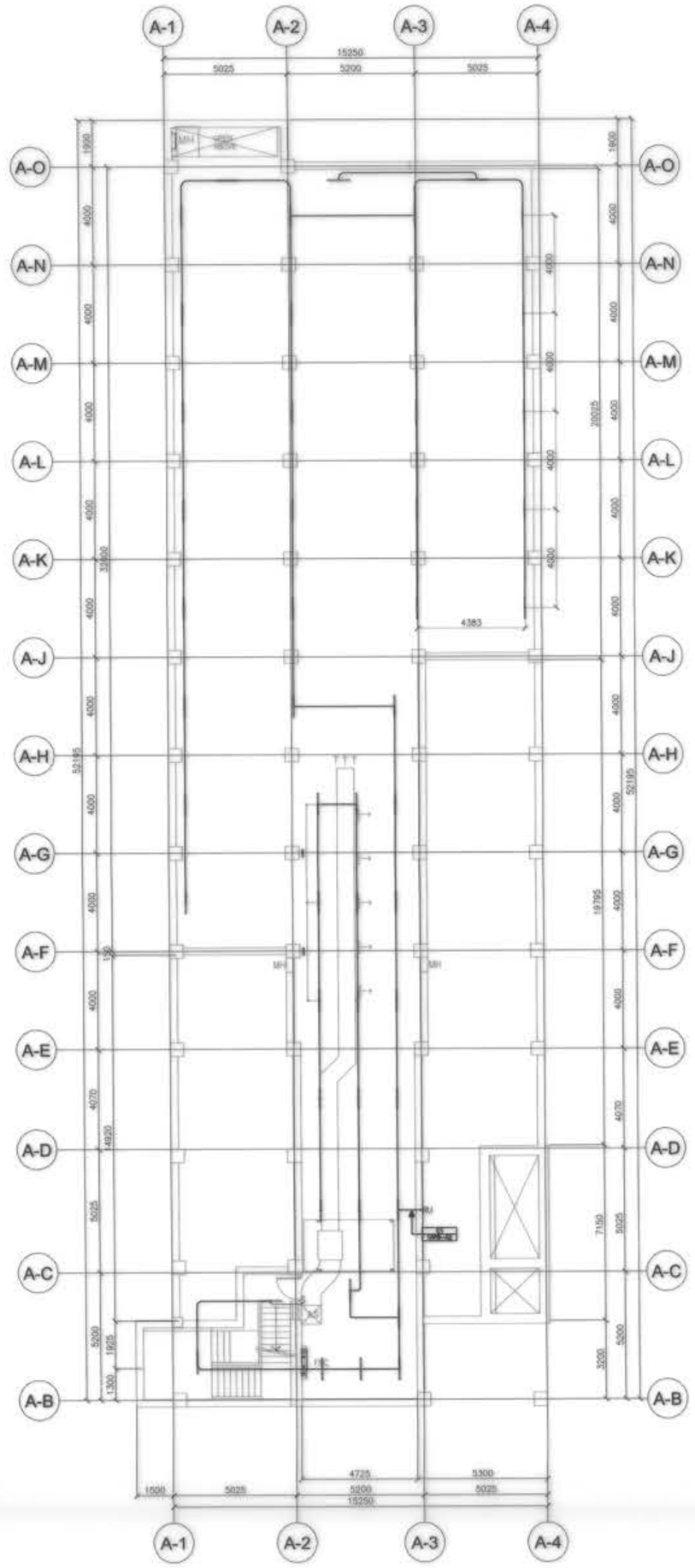
OWNER: NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Capas Inc. VIVENCIO B. DIZON, PRESIDENT; PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION, MANILA - DAVAO - CEBU - ILOILO. ZOILO S. DELA CRUZ, VICE PRESIDENT-OPERATION. REG No.: 0002657; TIN No.: 118-428-274; DATE: 01.20.2019; PTR No: 8118498; PLACE: MANILA	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants. ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGIENGINEERS. VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING. NGAC PHASE 1A ATHLETES VILLAGE ELECTRICAL. New Clark City, Capas, Tarlac	GENERAL NOTES, LEGENDS, LOCATION MAP, DRAWING INDEX, VICINITY MAP, & PERSPECTIVE	E-01



MAIN POWER DISTRIBUTION LAYOUT/ SITE LIGHTING AND POWER LAYOUT

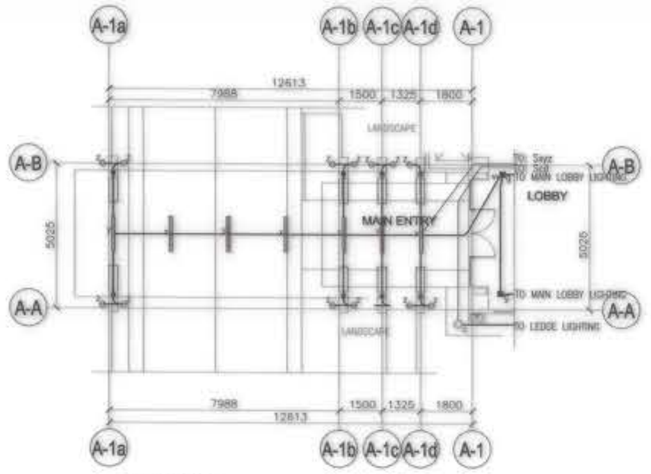
1 / E-02 SCALE 1: 300 M

OWNER : NGAC PHASE I JV COMPANY BCDA AND NTD CORP VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0002607 PTR No: 8115498 TIN No.: 118-428-274 PLACE: MANILA DATE: 01.20.2018	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: MAIN POWER DISTRIBUTION LAYOUT / SITE LIGHTING AND POWER LAYOUT	SHEET NO. E-02

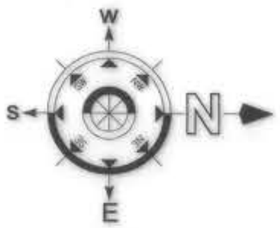


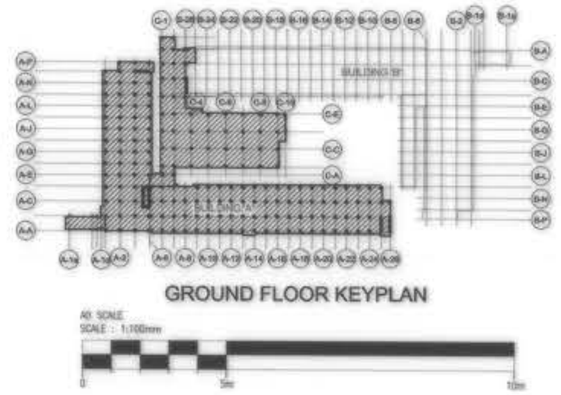
1 E-03 BUILDING A
BASMENT FLOOR LIGHTING LAYOUT PLAN
SCALE 1 : 100 M

OWNER : NGAC PHASE I JV COMPANY BCDA AND NTD VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: ZOILO S. DELA CRUZ VICE PRESIDENT – OPERATION FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO REG No.: 0022857 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2015	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "A" BASEMENT FLOOR LIGHTING LAYOUT PLAN	SHEET NO. E-03



BUILDING A
MAIN ENTRANCE LIGHTING LAYOUT PLAN
2 E-04 SCALE 1 : 150 M

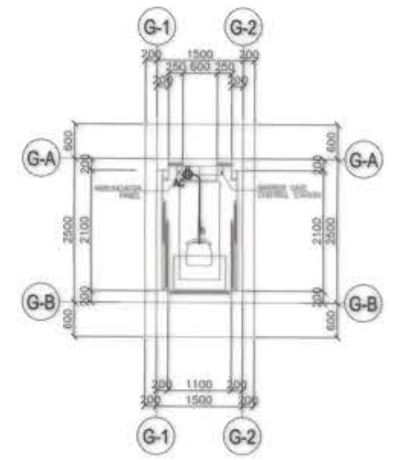




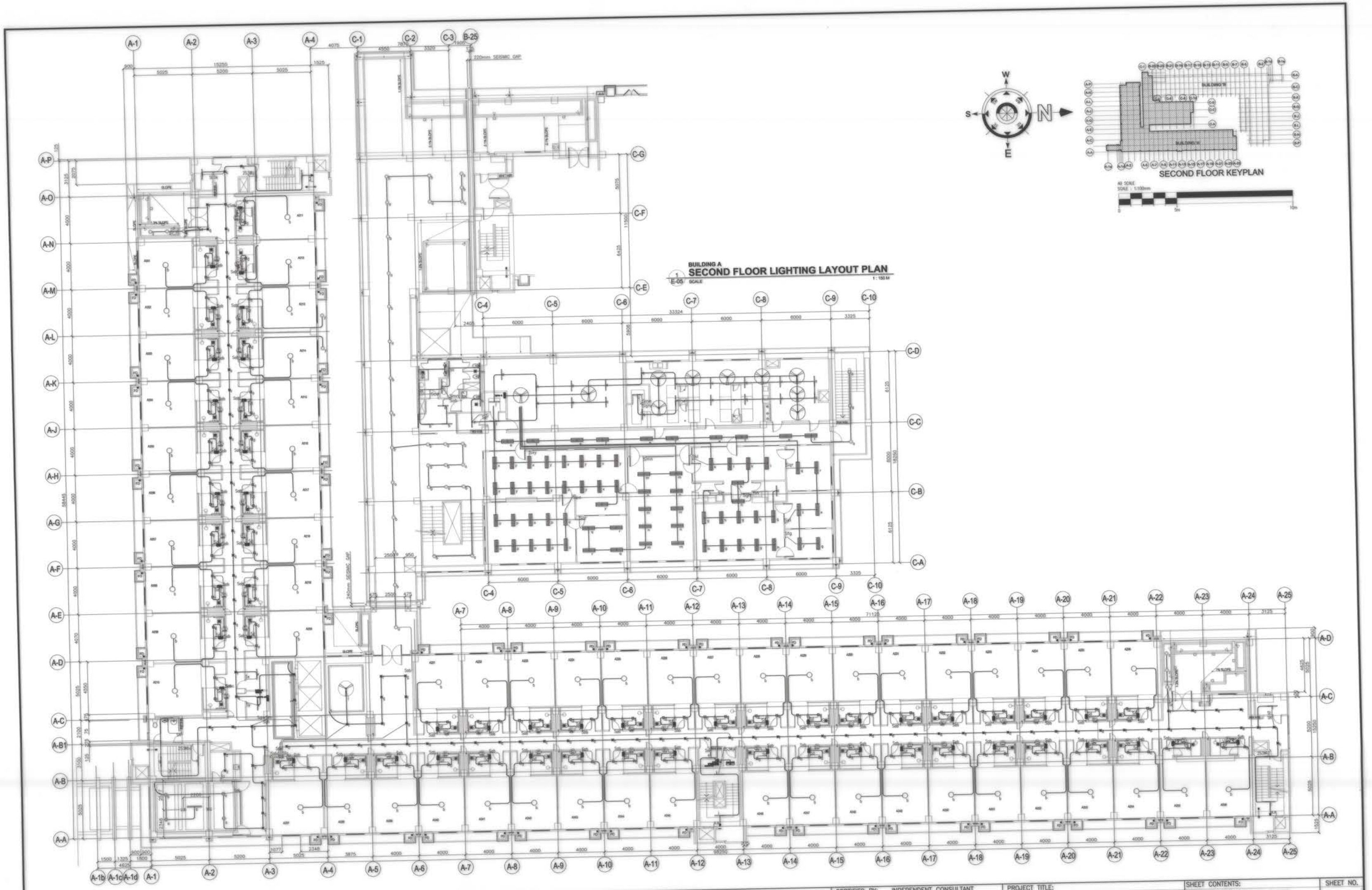
GROUND FLOOR KEYPLAN

NO SCALE
SCALE : 1:100mm

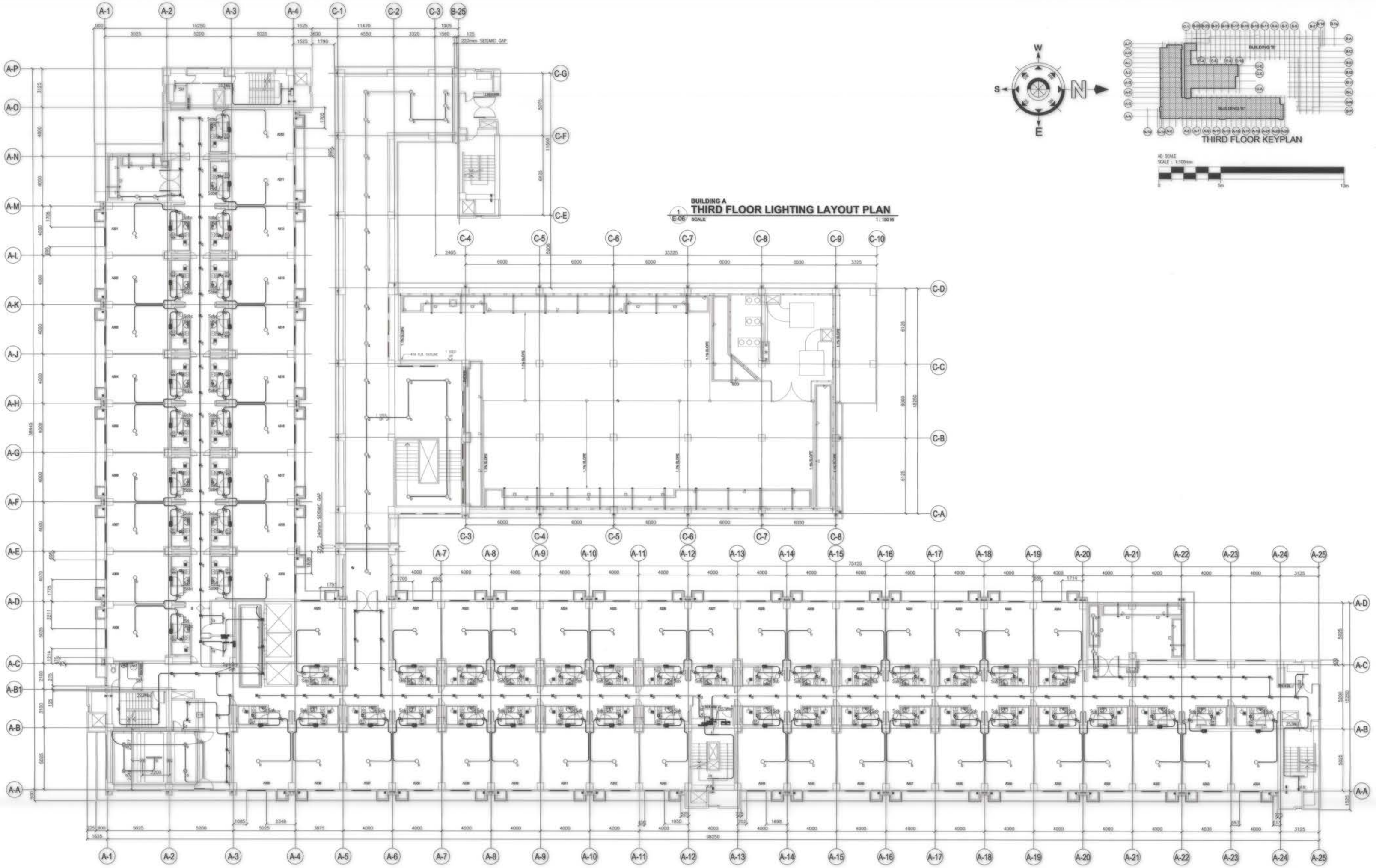
BUILDING A
GROUND FLOOR LIGHTING LAYOUT PLAN
1 E-04 SCALE 1 : 150 M



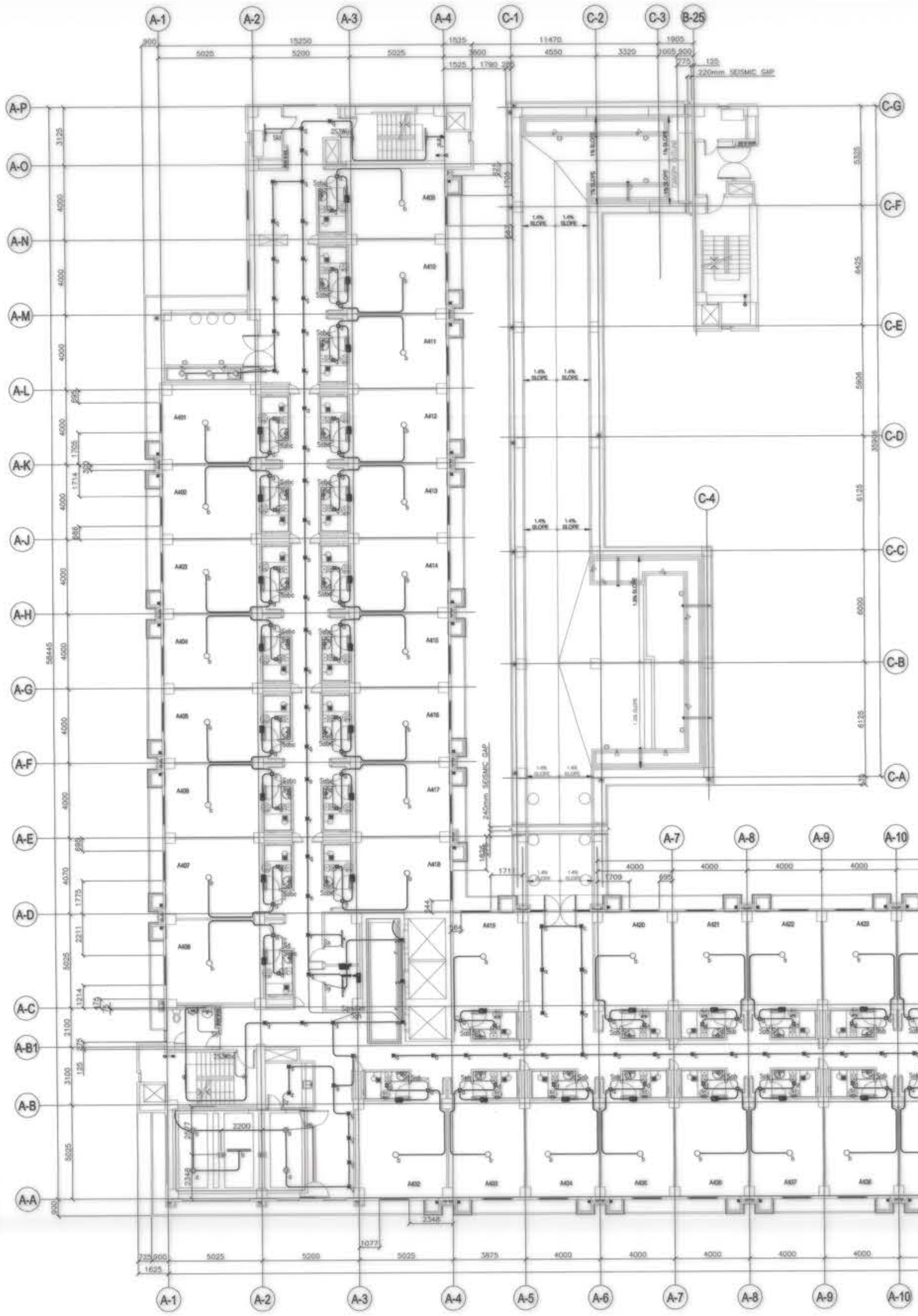
OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION ZOILO S. DELA CRUZ VICE PRESIDENT-OPERATION REG No.: 0022657 PTR No: 8115498 TIN No.: 116-420-374 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "A" GROUND FLOOR LIGHTING LAYOUT PLAN	SHEET NO. E-04

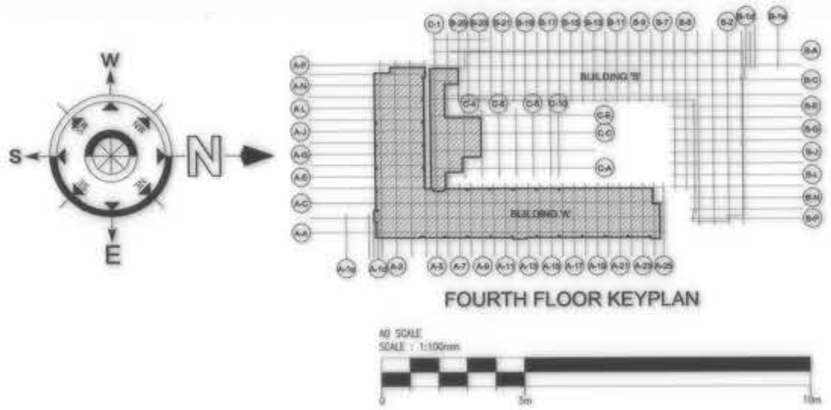


OWNER : NGAC PHASE I JV COMPANY BCDA VIVENCIO B. DIZON PRESIDENT AND MTD PATRICK NICHOLAS P. DAVID PRESIDENT	PREPARED BY: FREY-FIL CORPORATION ZOILO S. DELA CRUZ VICE PRESIDENT-OPERATION REG No.: 0022857 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "A" SECOND FLOOR LIGHTING LAYOUT PLAN	SHEET NO. E-05



OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD Clark VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022657 PTR No: 0118498 TIN No.: 116-428-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "A" THIRD FLOOR LIGHTING LAYOUT PLAN	SHEET NO. E-06





FOURTH FLOOR KEYPLAN

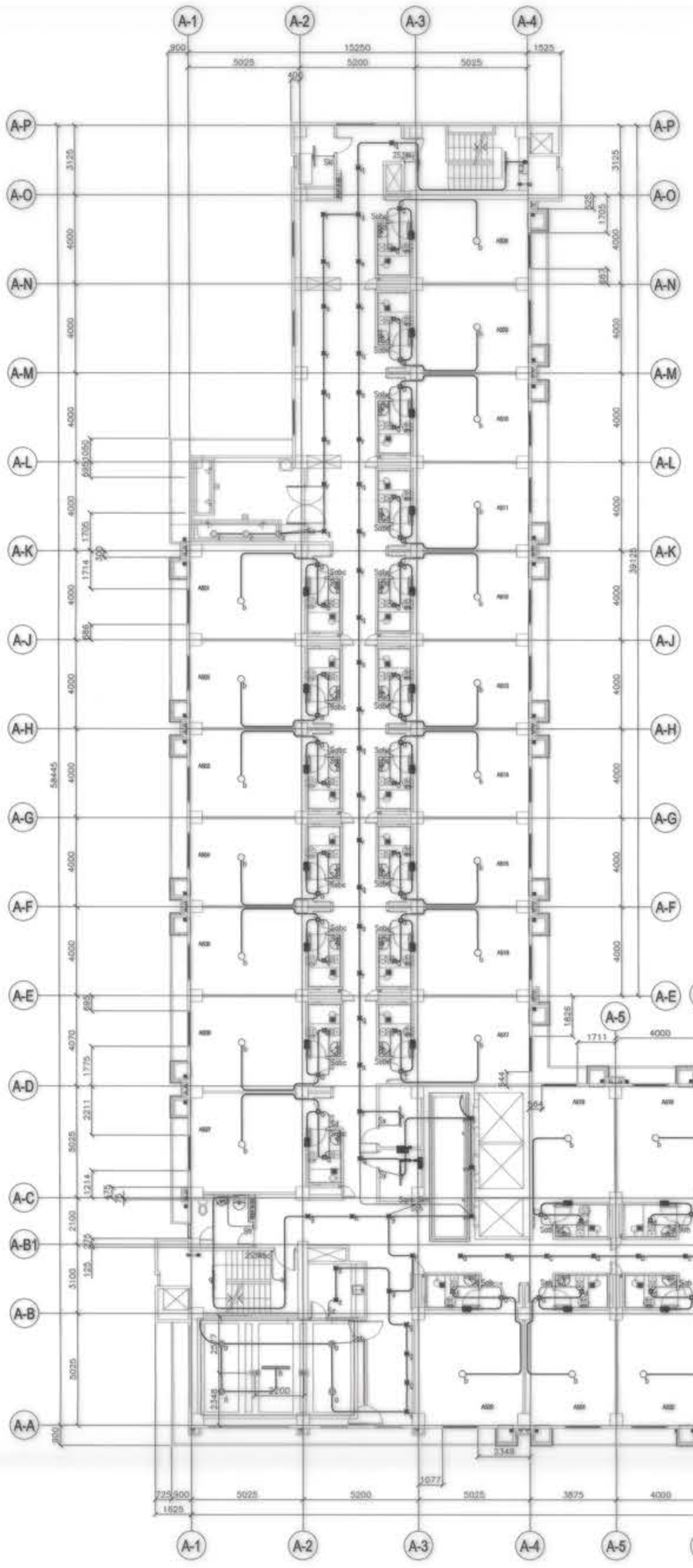
A0 SCALE
SCALE : 1:100mm

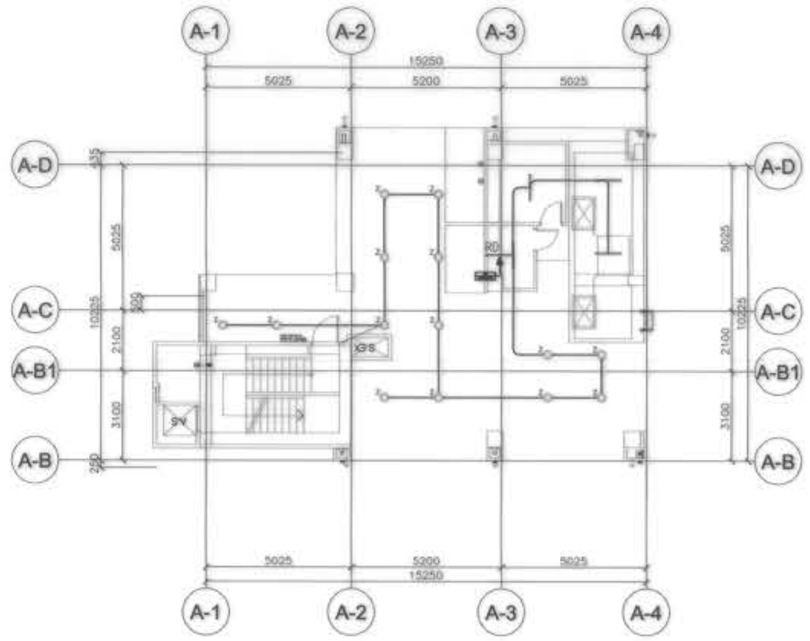
0 5m 10m

BUILDING A
FOURTH FLOOR LIGHTING LAYOUT PLAN
1 E-07 SCALE 1 : 150 M

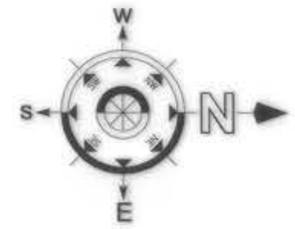
OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA Bases Conversion and Development Authority — VIVENCIO B. DIZON, PRESIDENT	FREY-FIL CORPORATION — MANILA - DAVAO - CEBO - ILOILO — ZOILO S. DELA CRUZ, VICE PRESIDENT – OPERATION	FILIPINAS DRAVO CORPORATION — Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT
AND	REG No.: 002467 PTR No: 8115498		
NTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	TIN No.: 116-426-274 PLACE: MANILA		
	DATE: 01.20.2019		

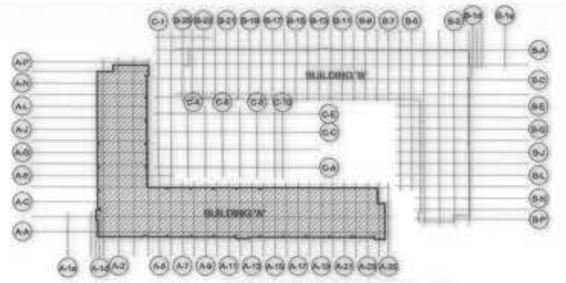
CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" FOURTH FLOOR LIGHTING LAYOUT PLAN	E-07





BUILDING A
2 E-08 SCALE
ROOFDECK LIGHTING LAYOUT PLAN
1 : 150 M

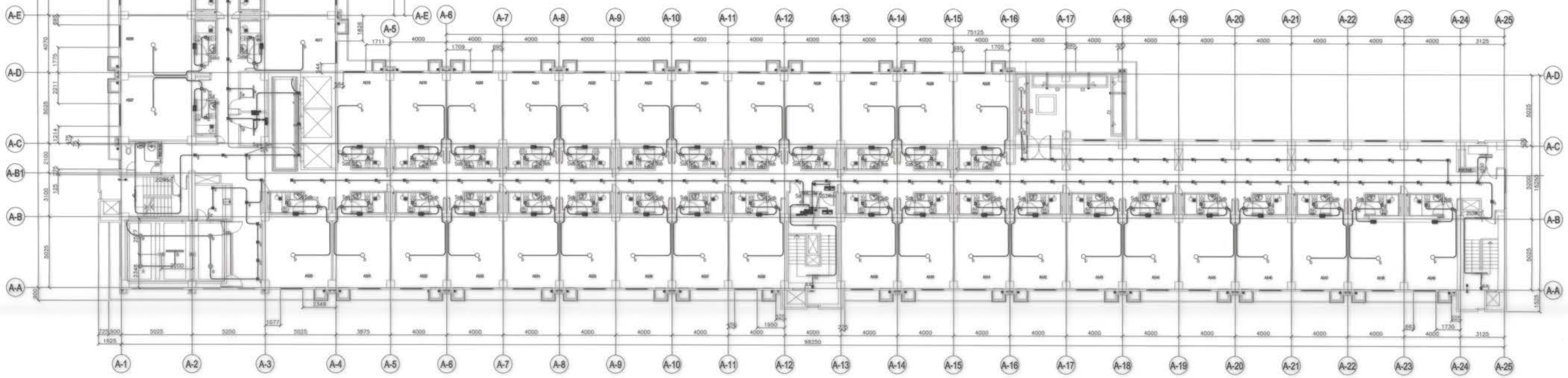




FIFTH FLOOR KEYPLAN

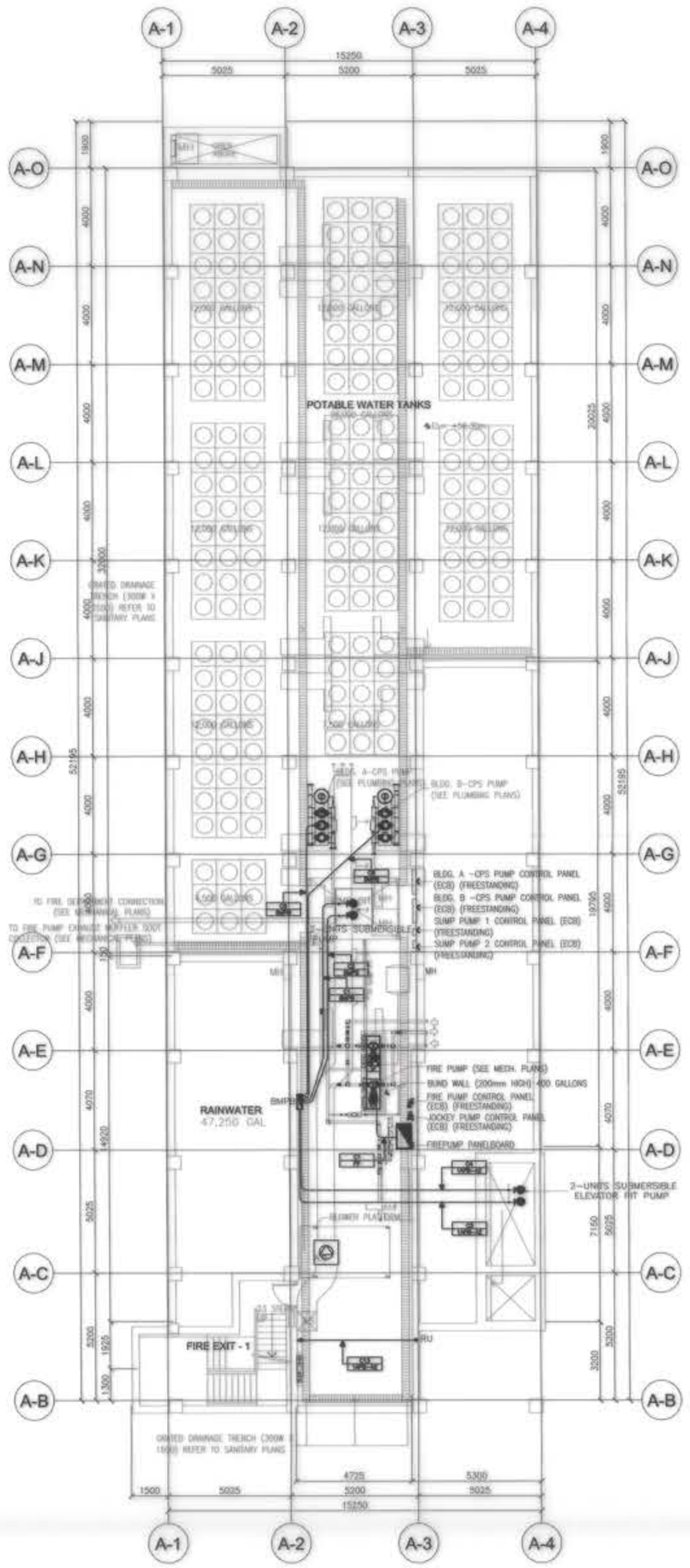


BUILDING A
1 E-08 SCALE
FIFTH FLOOR LIGHTING LAYOUT PLAN
1 : 150 M



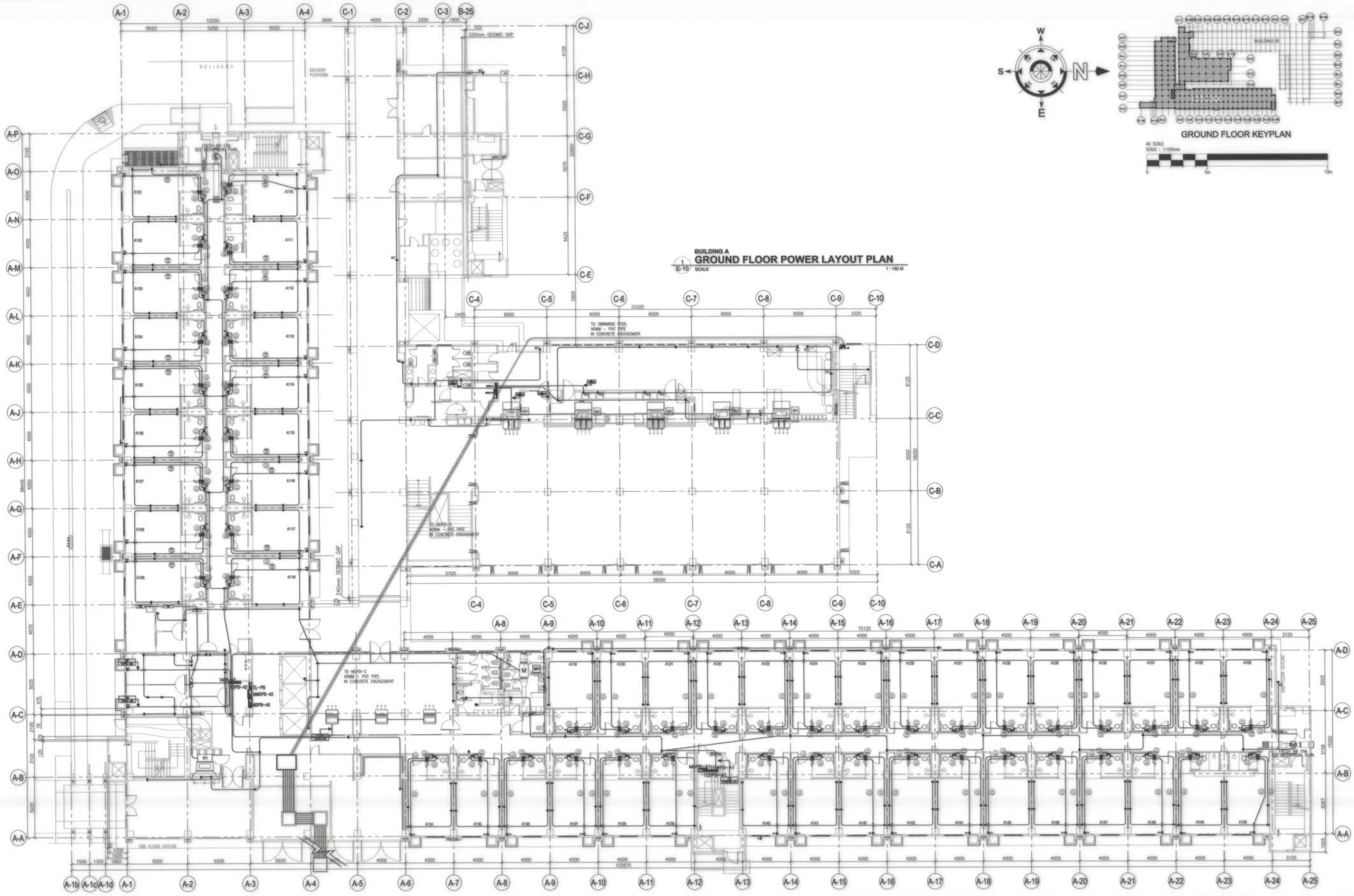
OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:
BCDA Bases Conversion and Development Authority — VIVENCIO B. DIZON, PRESIDENT AND MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ, VICE PRESIDENT - OPERATION REG No.: 0022657 · PTR No: 8116498 TIN No.: 116-426-274 · PLACE: MANILA DATE: 01.20.2018	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac

SHEET CONTENTS:	SHEET NO.
BUILDING "A" FIFTH FLOOR LIGHTING LAYOUT PLAN	E-08



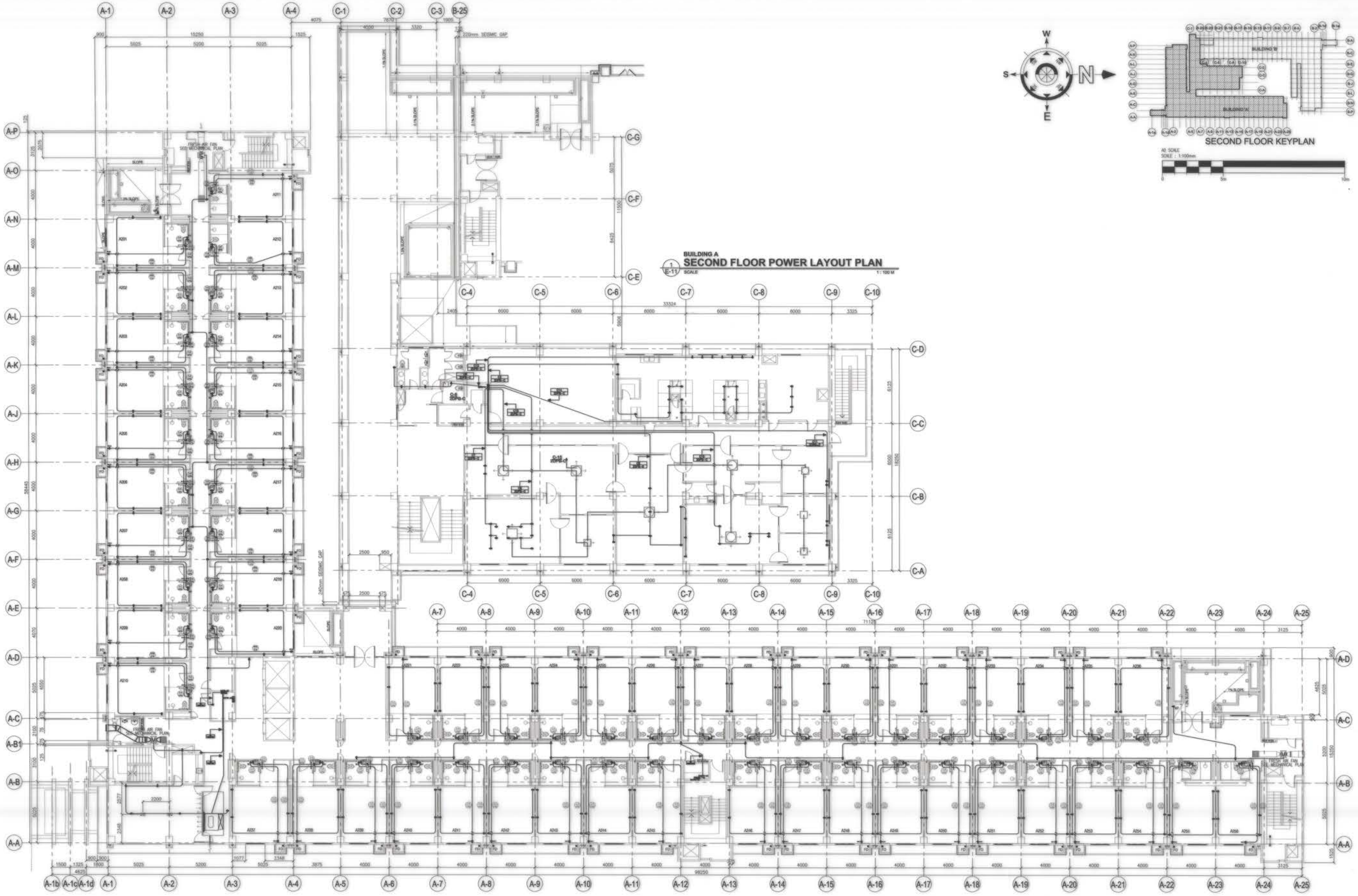
1 E-09 BUILDING A
BASMENT FLOOR POWER LAYOUT PLAN
SCALE 1 : 150 M

OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD Clark Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0027957 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "A" BASEMENT FLOOR POWER LAYOUT PLAN	SHEET NO. E-09

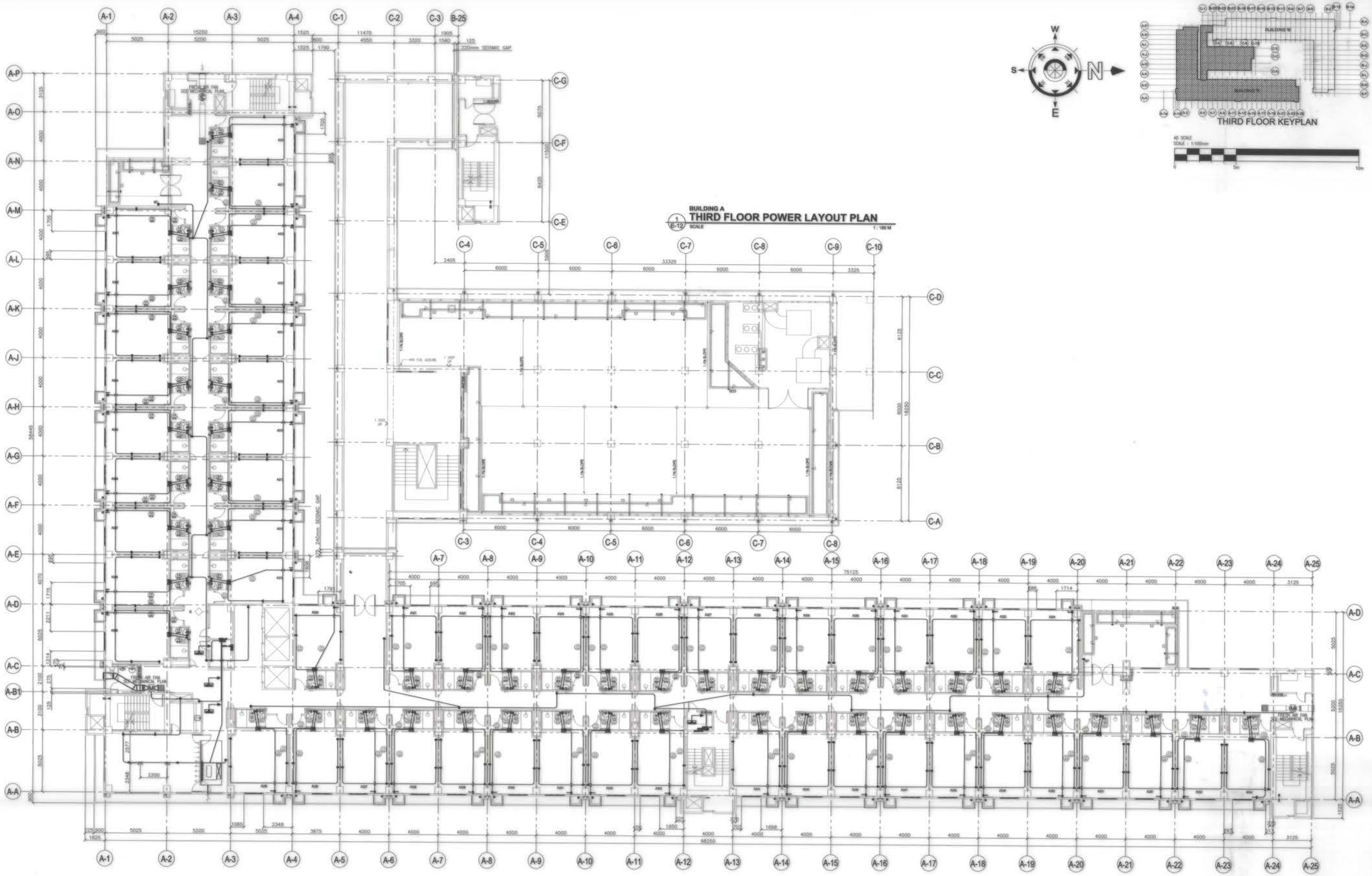


OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO REG No.: 0022557 PTR No: 8115495 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" GROUND FLOOR POWER LAYOUT PLAN	E-10



OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD Clark VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT-OPERATION REG No.: 0022457 PTR No: 8118498 TIN No.: 115-426-274 PLACE: MAKATI DATE: 01.20.2010	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO B. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "A" SECOND FLOOR POWER LAYOUT PLAN	SHEET NO. E-11



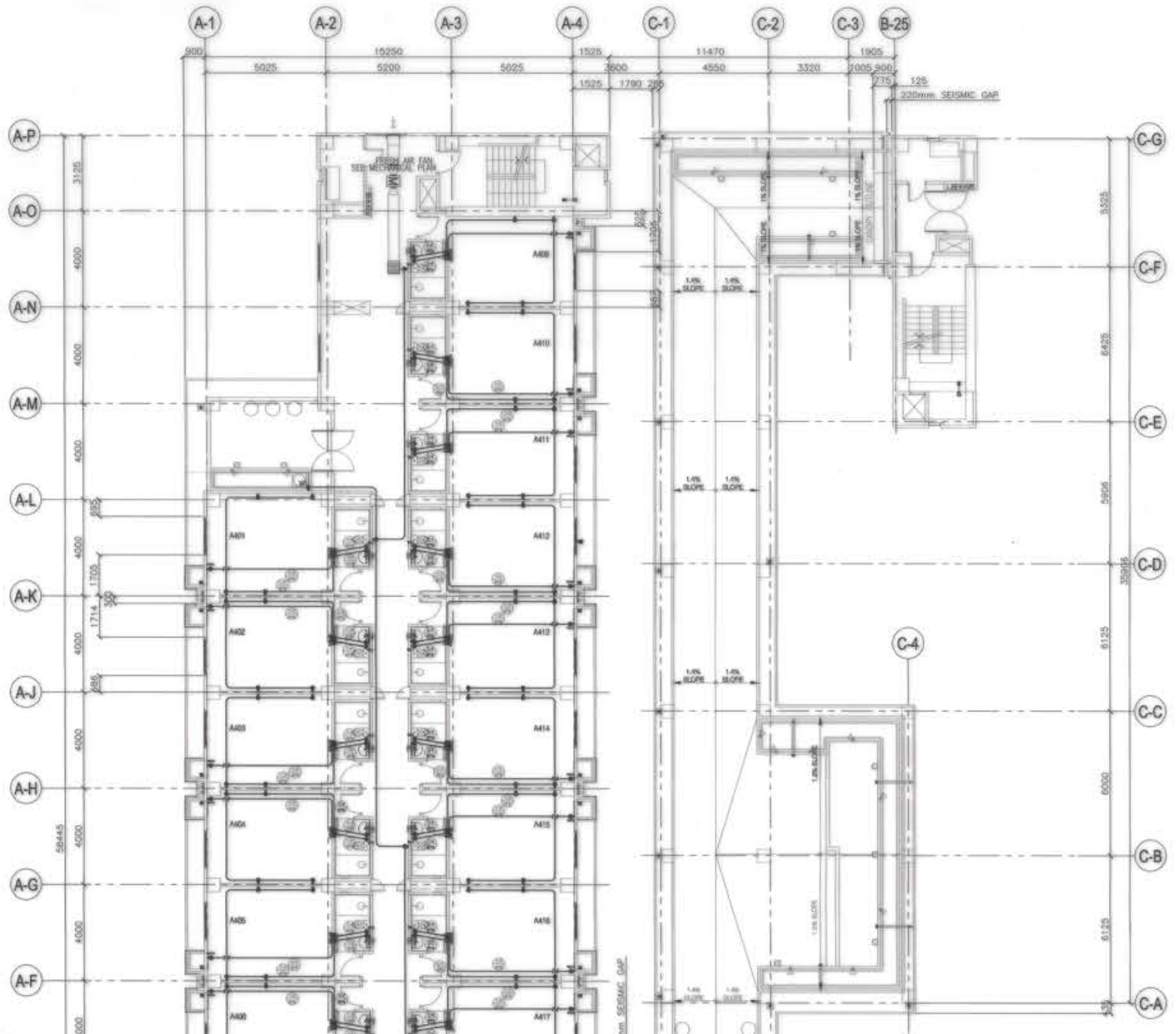
BUILDING A
THIRD FLOOR POWER LAYOUT PLAN
1 / E-12 SCALE 1 : 100 M

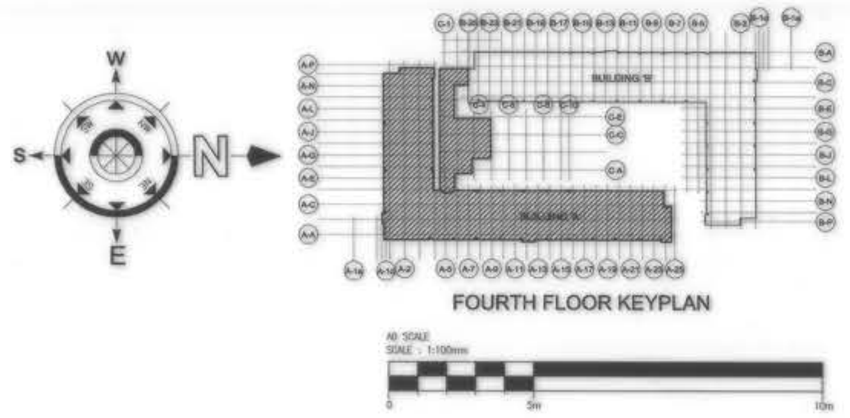
THIRD FLOOR KEYPLAN

A0 SCALE
SCALE : 1:100mm

OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA AND MTD Clark VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION ZOILO S. DELA CRUZ, VICE PRESIDENT–OPERATION REG No.: 0022657 PTR No: 8118498 TIN No.: 116-428-274 PLACE: MANILA DATE: 01.20.2018	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT

CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" THIRD FLOOR POWER LAYOUT PLAN	E-12



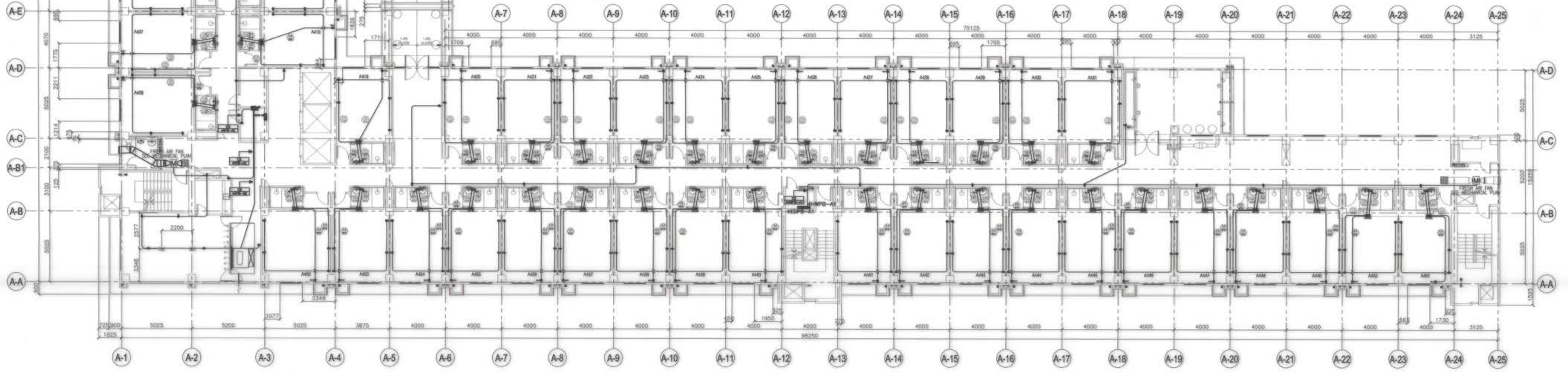


FOURTH FLOOR KEYPLAN

A0 SCALE
SCALE : 1:100mm

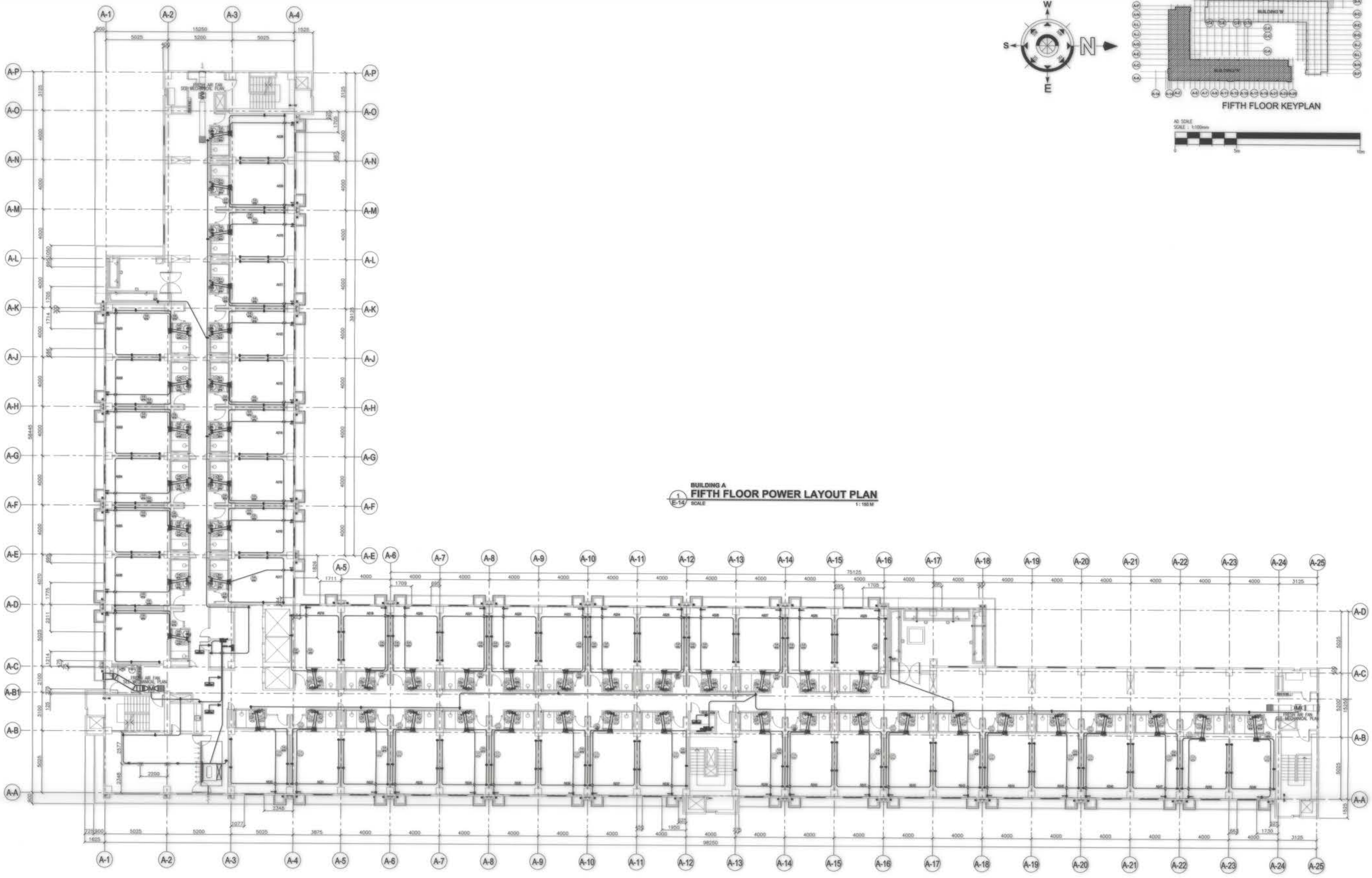
0 5m 10m

BUILDING A
FOURTH FLOOR POWER LAYOUT PLAN
1/E-13 SCALE 1 : 100 M



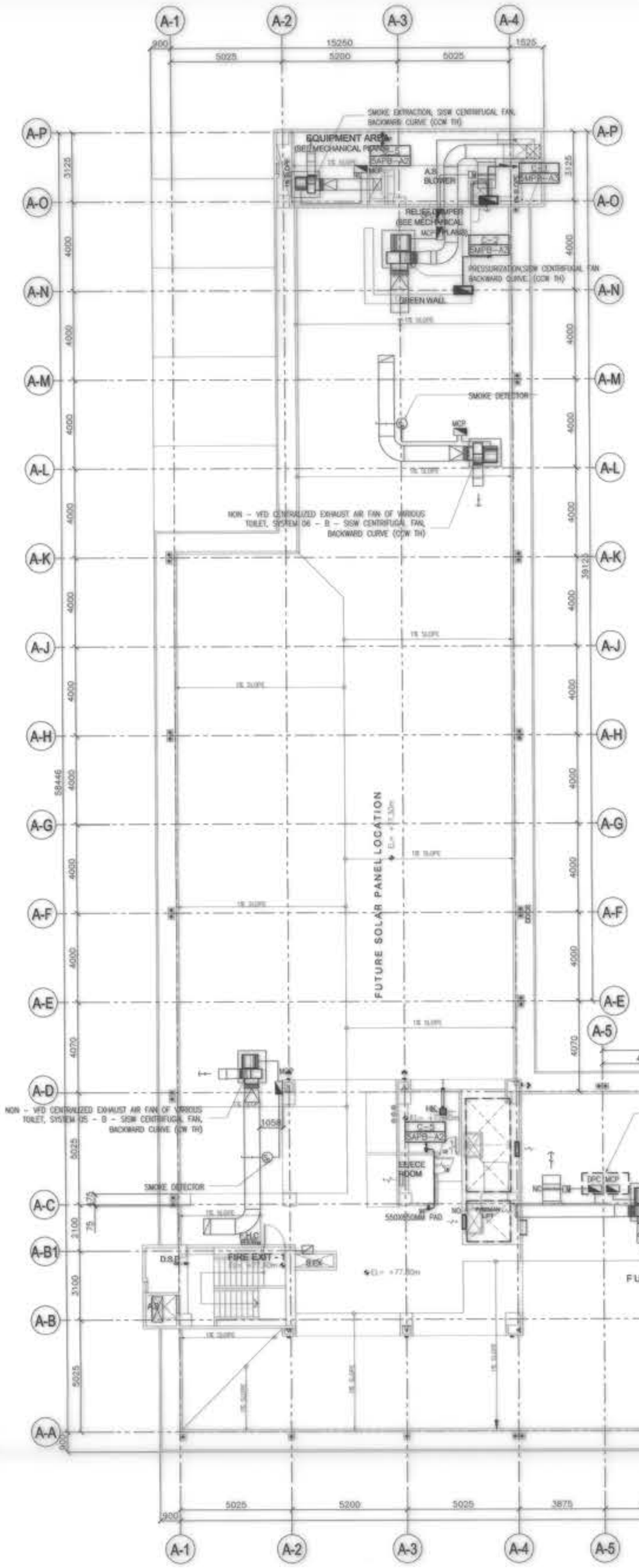
OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA Bases Conversion and Development Authority — VIVENCIO B. DIZON, PRESIDENT	FREY-FIL CORPORATION — MANILA - DAVAO - CEBU - ILOILO	FILIPINAS DRAVO CORPORATION — Architectural & Engineering Consultants	BANDAR HEBAT BUILDERS, INC.
AND	ZOILO S. DELA CRUZ, VICE PRESIDENT - OPERATION	ALFREDO R. REVILLA, PROJECT MANAGER	ISAAC S. DAVID, PRESIDENT
MTD Clark — PATRICK NICHOLAS P. DAVID, PRESIDENT	REG No.: 0022657 · PTR No: 8118498 · TIN No.: 116-426-274 · PLACE: MANILA · DATE: 01.20.2019		

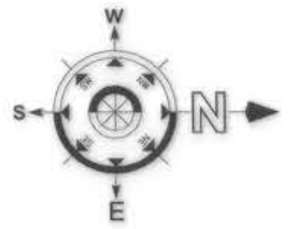
CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" FOURTH FLOOR POWER LAYOUT PLAN	E-13

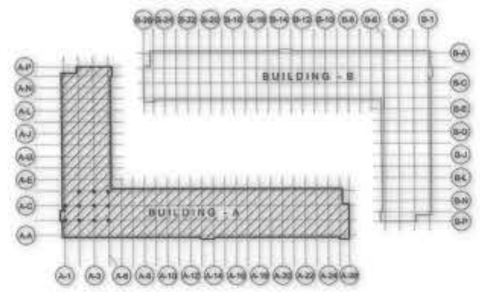


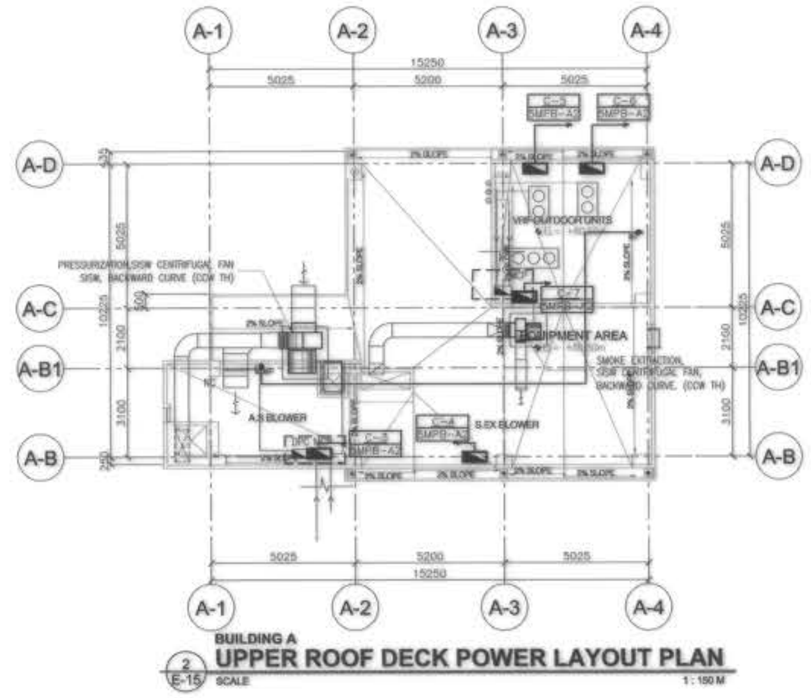
BUILDING A
1 E-14 FIFTH FLOOR POWER LAYOUT PLAN
SCALE 1 : 150 M

OWNER :	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
NGAC PHASE I JV COMPANY BCDA VIVENCIO B. BIZON PRESIDENT AND MTD Clark, Inc. PATRICK NICHOLAS P. DAVID PRESIDENT	FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022657 PTR No: 8118498 TIN No.: 118-426-274 PLACE: MANILA DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" FIFTH FLOOR POWER LAYOUT PLAN	E-14



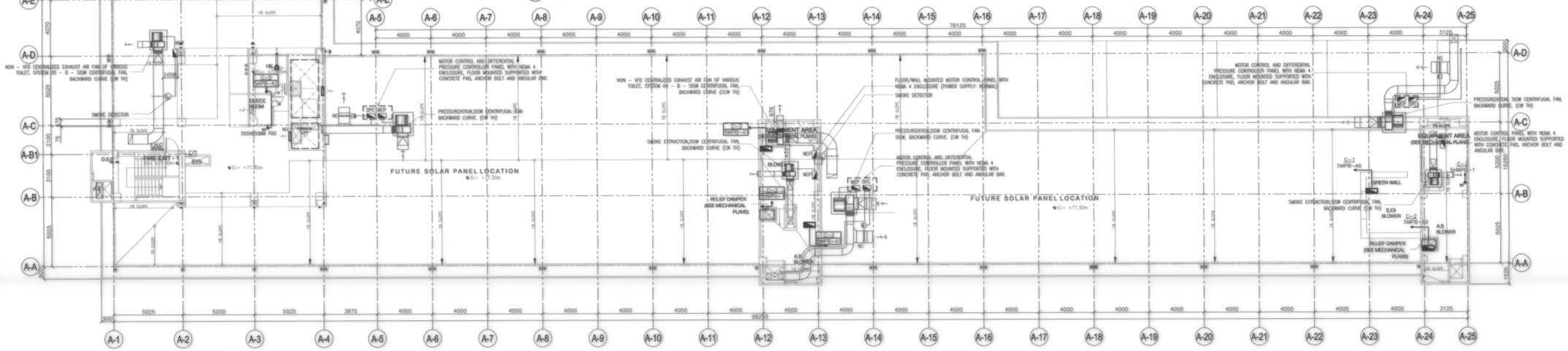




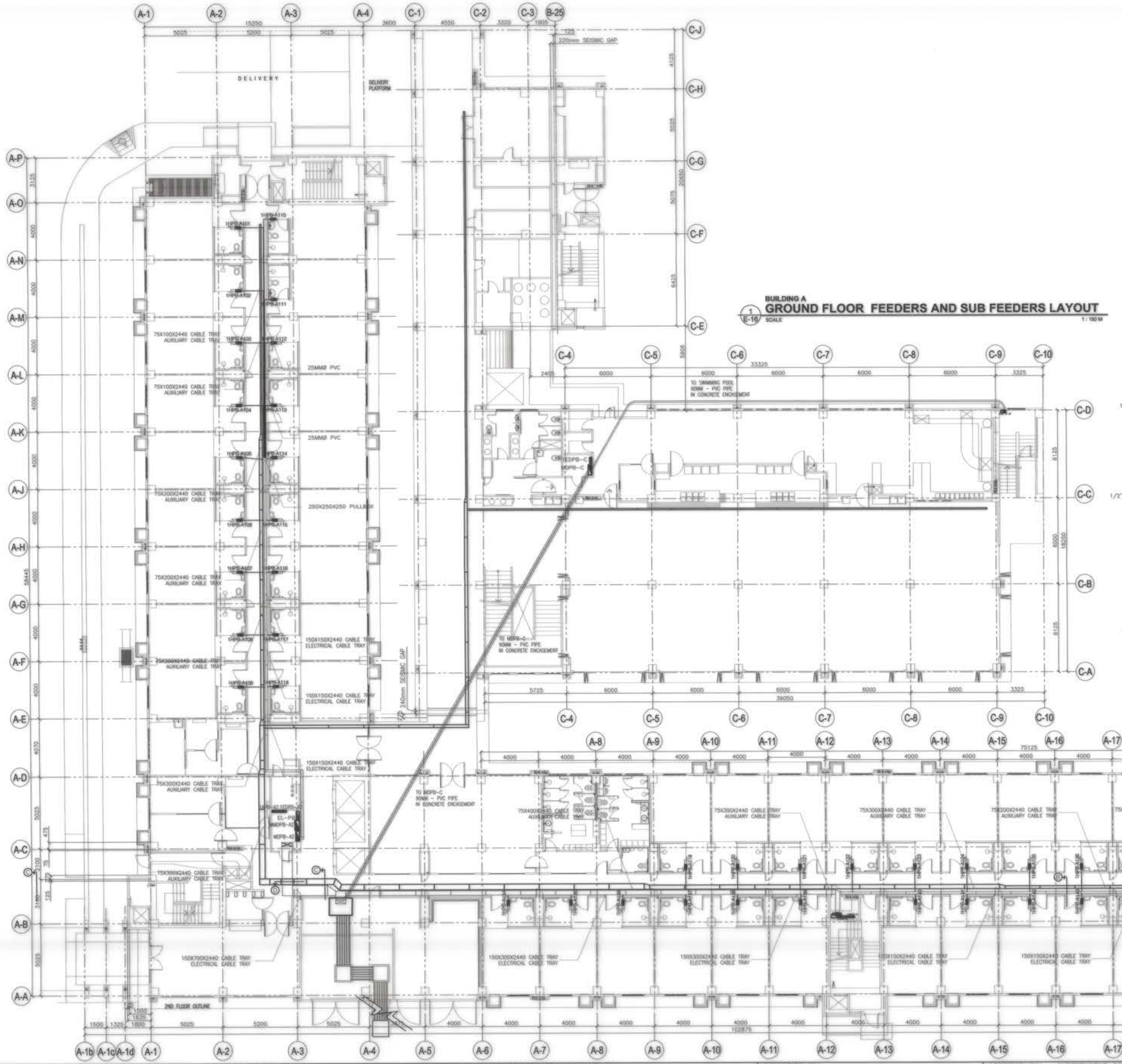


BUILDING A
2 E-15 UPPER ROOF DECK POWER LAYOUT PLAN
SCALE 1 : 150 M

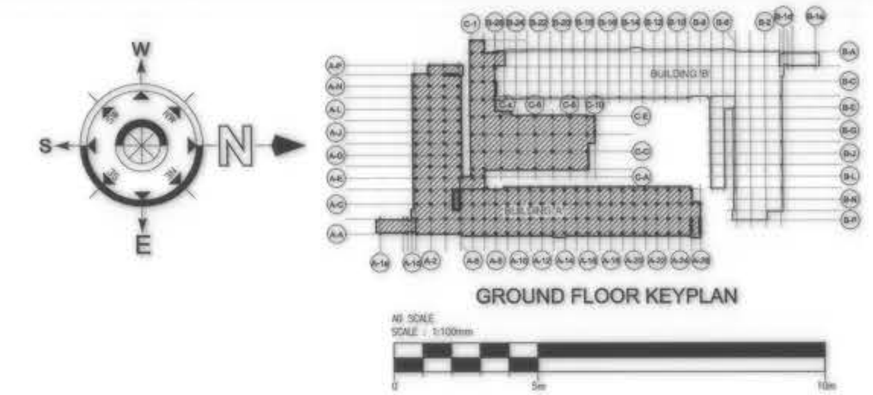
BUILDING A
1 E-15 ROOF DECK POWER LAYOUT PLAN
SCALE 1 : 150 M



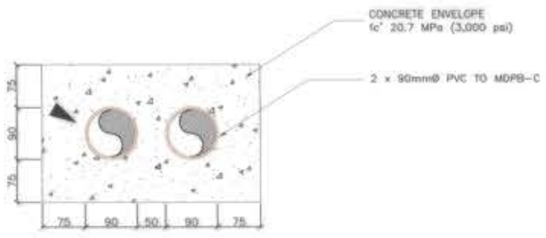
OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON PRESIDENT; PATRICK NICHOLAS P. DAVID PRESIDENT	FREY-FIL CORPORATION ZOILO S. DELA CRUZ VICE PRESIDENT-OPERATION; REG No.: 0022657; PTR No: 8118498; TIN No.: 116-426-274; PLACE: MANILA; DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants; ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" ROOF DECK POWER LAYOUT PLAN	E-15



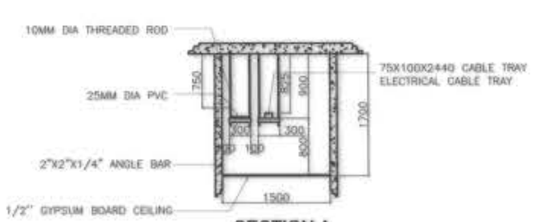
BUILDING A
1 / E-16 GROUND FLOOR FEEDERS AND SUB FEEDERS LAYOUT
SCALE 1 : 150 M



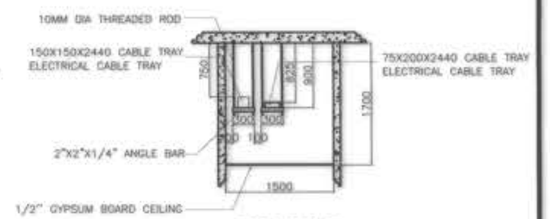
GROUND FLOOR KEYPLAN



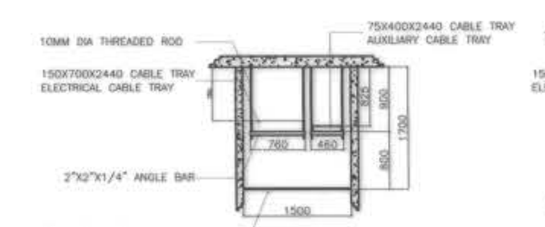
DUCTBANK DETAIL
TO MDPB-C



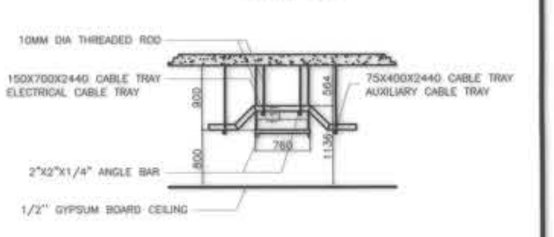
SECTION A



SECTION B



SECTION C



SECTION D

2 / E-16 ELEVATION OF SUBFEEDER UNITS
SCALE 1 : 60 M

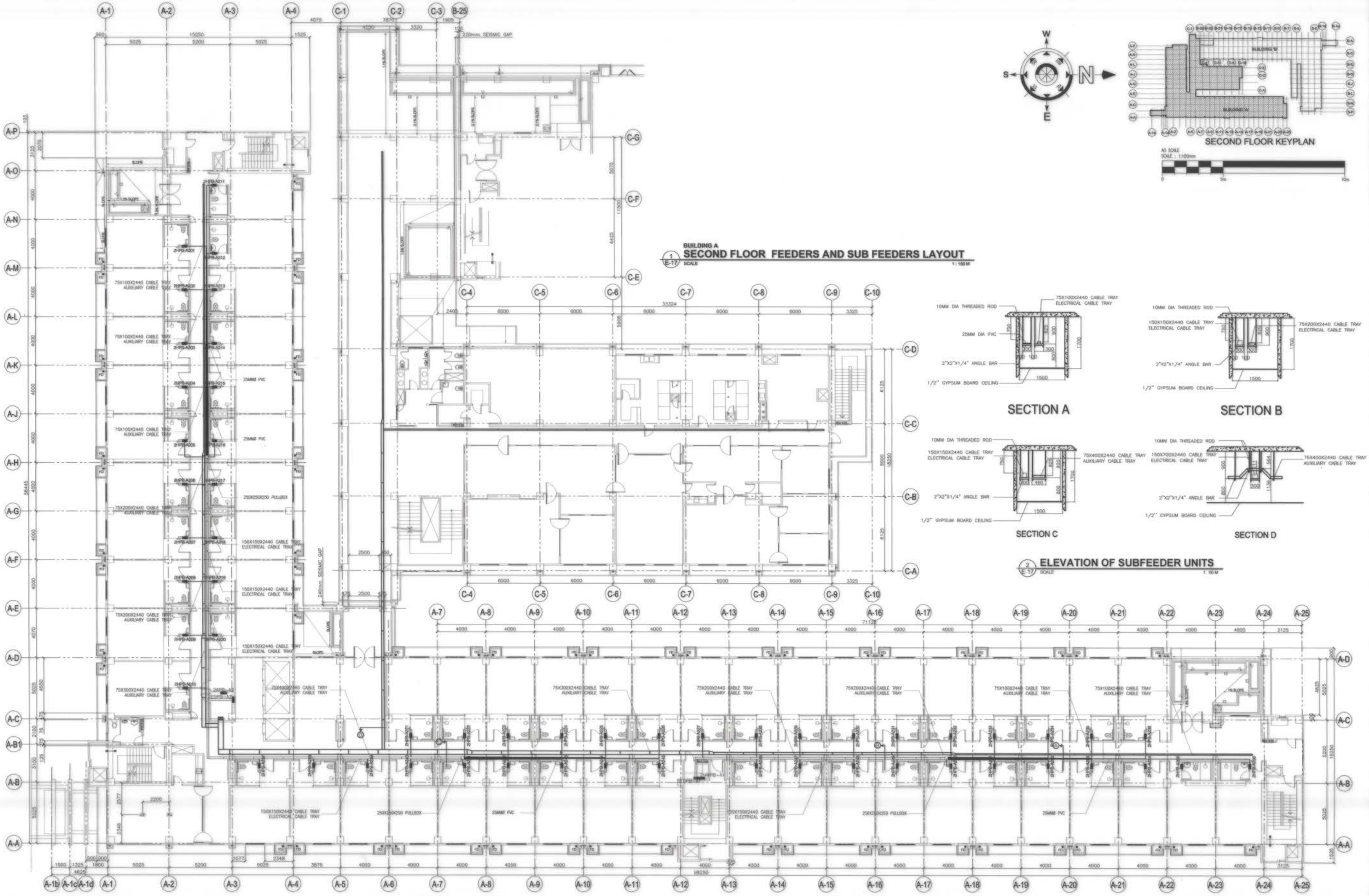
OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA — VIVENCIO B. DIZON, PRESIDENT AND MTO Clark — PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION ZOILO S. DELA CRUZ, VICE PRESIDENT – OPERATION REG No.: 0022657 · TIN No.: 116-426-274 · DATE: 01.20.2019 PTR No: 5118498 · PLACE: MANILA	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT

CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" GROUND FLOOR FEEDERS AND SUB FEEDERS LAYOUT	E-16

BUILDING A

SECOND FLOOR FEEDERS AND SUB FEEDERS LAYOUT

1 / E-17 SCALE 1 : 150 M



SECOND FLOOR KEYPLAN

SECTION A

SECTION B

SECTION C

SECTION D

2 / E-17 SCALE 1 : 60 M

ELEVATION OF SUBFEEDER UNITS

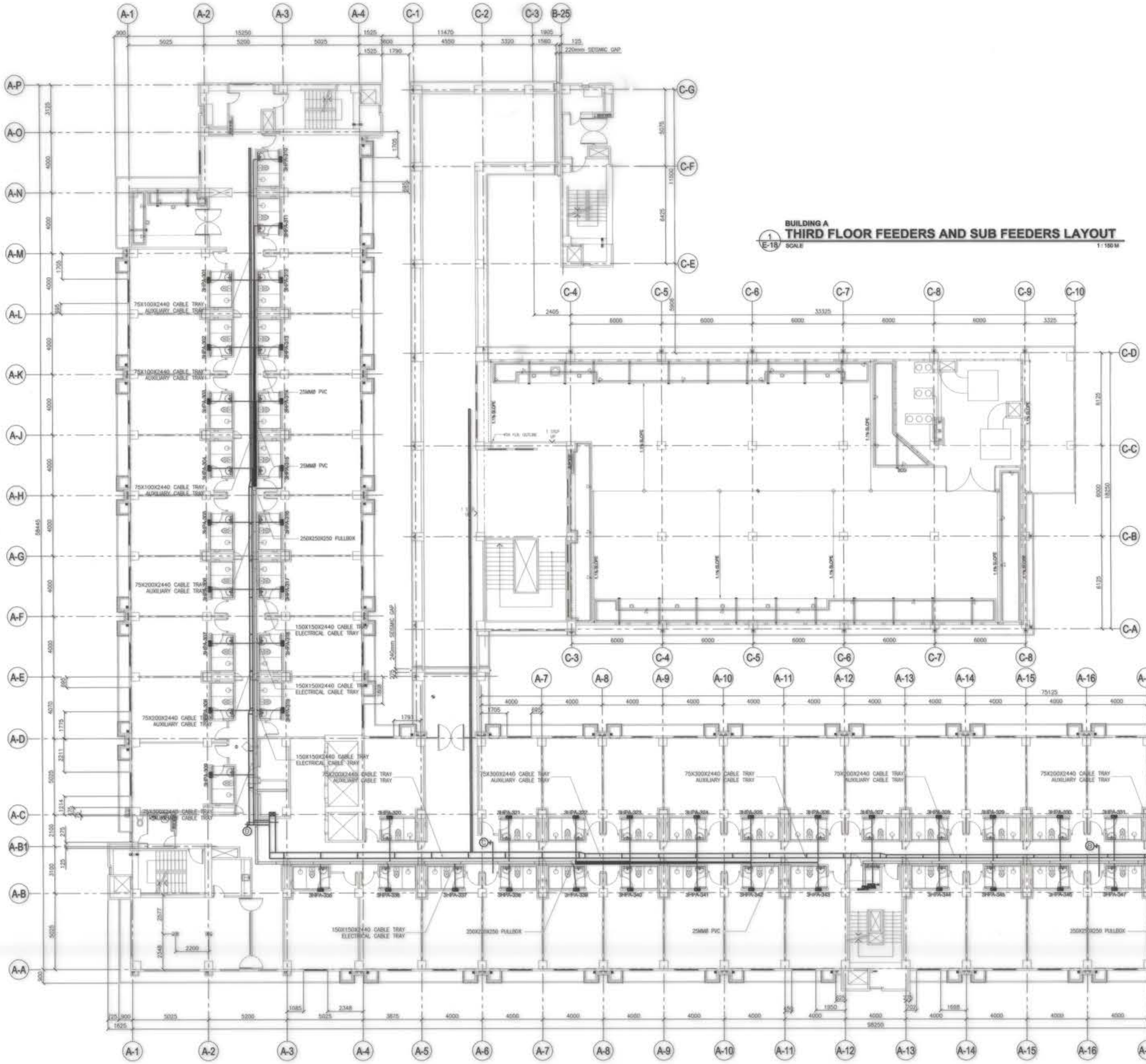
OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA Bases Conversion and Development Authority — VIVENCIO B. DIZON, PRESIDENT — AND — MTD Mun. Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION — MANILA - DAVAO - CEBU - ILOILO — ZOILO S. DELA CRUZ, VICE PRESIDENT-OPERATION — REG No.: 0022657 — PTR No: 8118498 — TIN No.: 116-426-274 — PLACE: MANILA — DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT

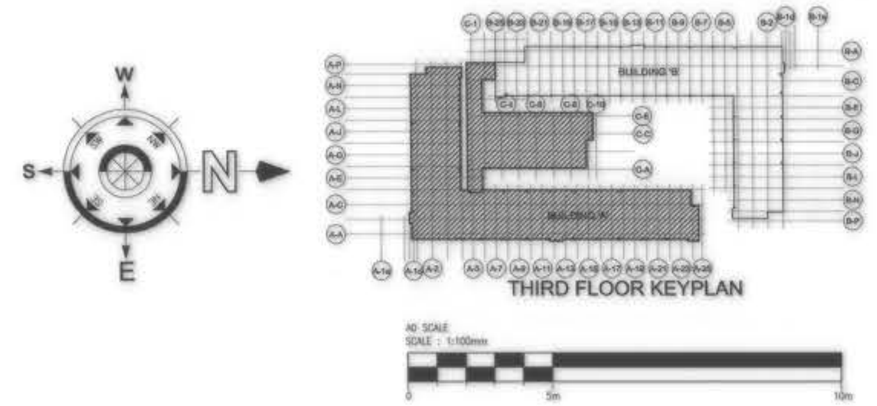
CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS — VIRGILIO A. MABRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" SECOND FLOOR FEEDERS AND SUB FEEDERS LAYOUT	E-17

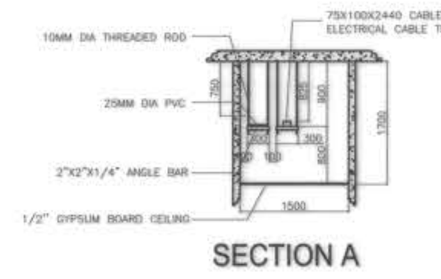
BUILDING A

1 / E-18 THIRD FLOOR FEEDERS AND SUB FEEDERS LAYOUT

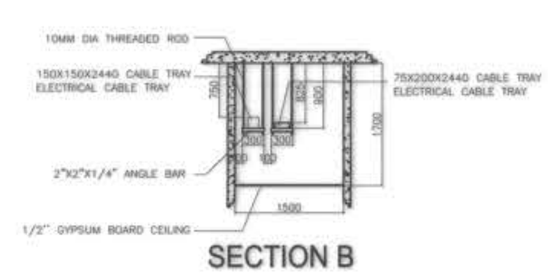
SCALE 1 : 150 M



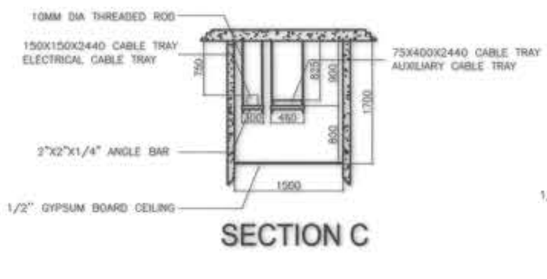




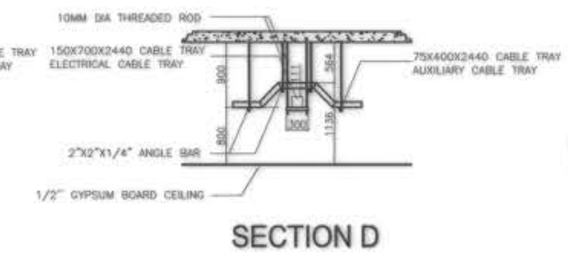
SECTION A



SECTION B



SECTION C



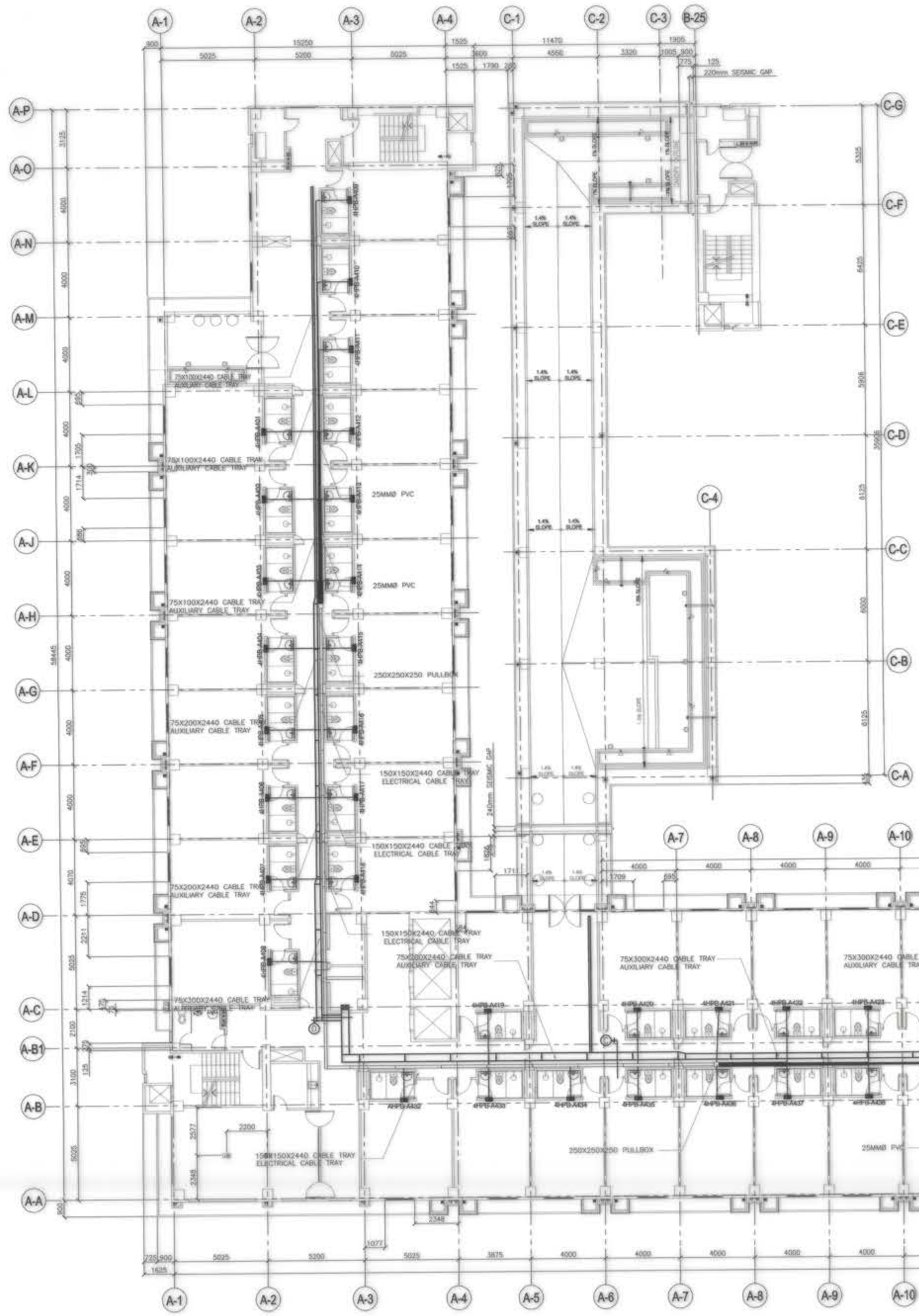
SECTION D

2 / E-18 ELEVATION OF SUBFEEDER UNITS

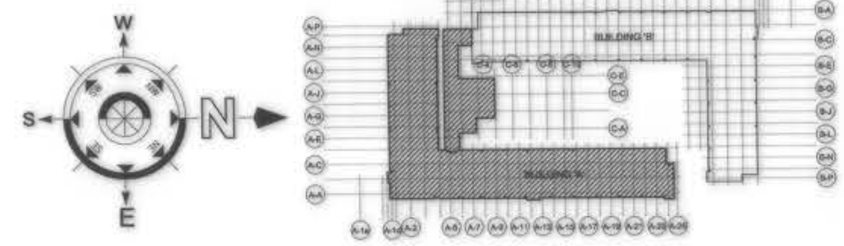
SCALE 1 : 60 M

OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA Bases Conversion and Development Authority — VIVENCIO B. BIZON, PRESIDENT — AND — MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION — ZOILO S. DELA CRUZ, VICE PRESIDENT – OPERATION — REG No.: 0002657 — PTR No: 8118498 — TIN No.: 116-426-274 — PLACE: MANILA — DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT

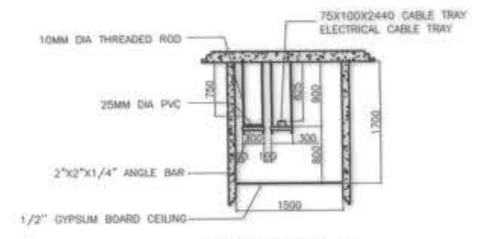
CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" THIRD FLOOR FEEDERS AND SUB FEEDERS LAYOUT	E-18



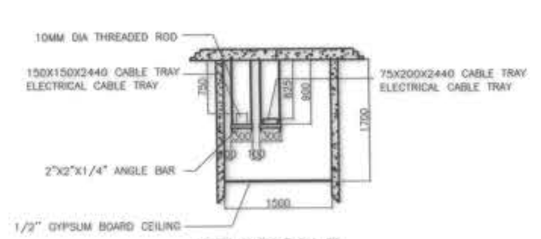
BUILDING A
1 FOURTH FLOOR FEEDERS AND SUB FEEDERS LAYOUT
E-19 SCALE 1 : 150 M



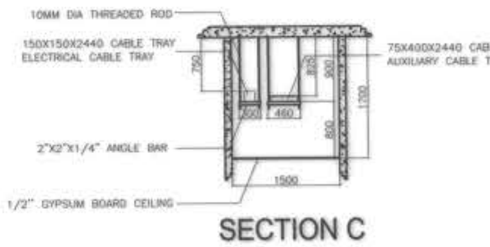
A0 SCALE
SCALE 1:100mm
0 3m 10m



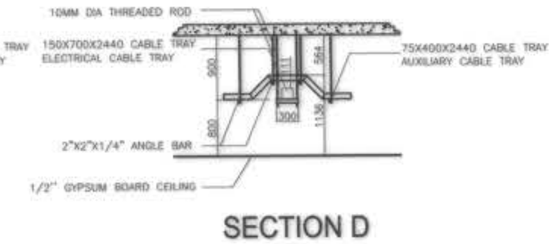
SECTION A



SECTION B



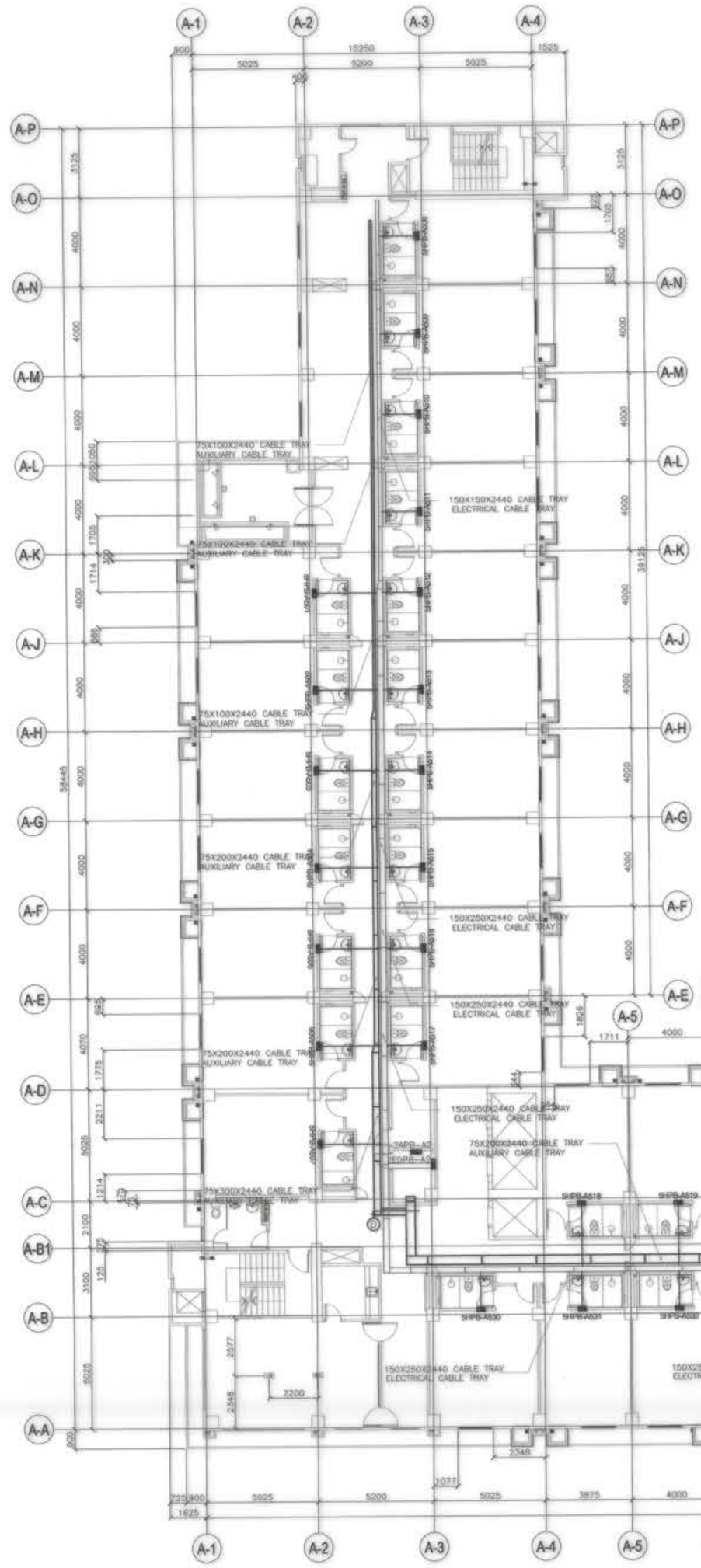
SECTION C

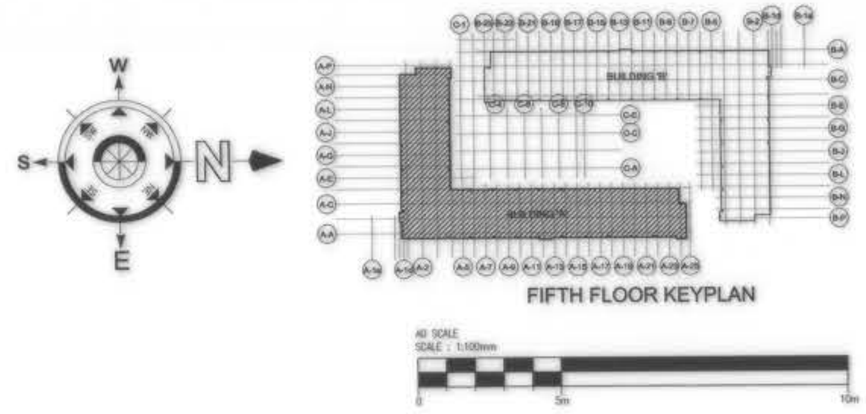


SECTION D

2 ELEVATION OF SUBFEEDER UNITS
E-19 SCALE 1 : 60 M

OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: ZOILO S. DELA CRUZ VICE PRESIDENT-OPERATION FREY-FIL CORPORATION REG No.: 0022657 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2018	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "A" FOURTH FLOOR FEEDERS AND SUB FEEDERS LAYOUT	SHEET NO. E-19

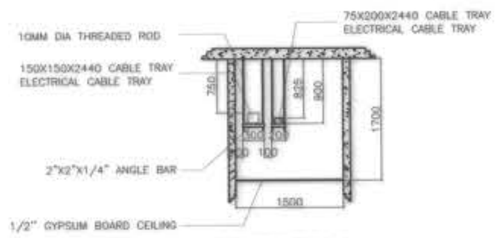

A-1
A-2
A-3
A-4
A-P
A-O
A-N
A-M
A-L
A-K
A-J
A-H
A-G
A-F
A-E
A-D
A-C
A-B1
A-B
A-A
A-5
A-6
A-7
A-8
A-9
A-10
A-11
A-12
A-13
A-14
A-15
A-16
A-17
A-18
A-19
A-20
A-21
A-22
A-23
A-24
A-25
75X100X2440 CABLE TRAY AUXILIARY CABLE TRAY
150X150X2440 CABLE TRAY ELECTRICAL CABLE TRAY
75X200X2440 CABLE TRAY AUXILIARY CABLE TRAY
150X250X2440 CABLE TRAY ELECTRICAL CABLE TRAY
75X300X2440 CABLE TRAY AUXILIARY CABLE TRAY
75X100X2440 CABLE TRAY AUXILIARY CABLE TRAY
15250
5025
5200
5025
1525
3125
4000
1700
1714
3445
2577
2348
2200
3348
3077
3875
1625
1709
1711
1705
1950
1730
1138
1584
5025
5200
15250
3125
1525
3445



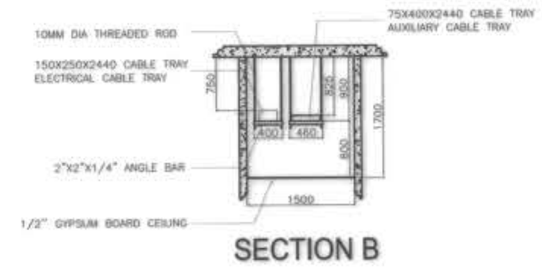
FIFTH FLOOR KEYPLAN

A0 SCALE
SCALE : 1:100mm

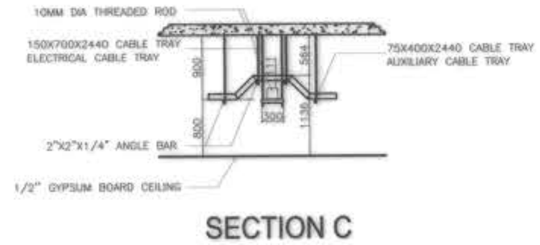
0 5m 10m



SECTION A



SECTION B



SECTION C

2 E 20 **ELEVATION OF SUBFEEDER UNITS**
SCALE 1 : 50 M

OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA Bases Conversion and Development Authority — VIVENCIO B. DIZON, PRESIDENT — AND — MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION — ZOILO S. DELA CRUZ, VICE PRESIDENT - OPERATION — REG No.: 0022657 — PTR No: 8115498 — TIN No.: 116-436-274 — PLACE: MANILA — DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT

CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" FIFTH FLOOR FEEDERS AND SUB FEEDERS LAYOUT	E-20

PANEL "HPB"
TYPICAL: HANDICAPPED UNIT PANEL BOARD IN ABS ENCLOSURE

VOLTAGE : 230 — WIRES : 2 + G — MAIN FEEDER: 2- 8.0 mm2 & 5.5 Gnd. 25mm PVC PIPE / CABLE TRAY
PHASE : 1 P — FREQ. 60 HZ — MAIN BREAKER : 50AT, 50AF, 1P + N, 10 KAIC WITH MAGNETIC CONTACTOR

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA
C1	280.5W LED FRAUGHT RECESSED, 1 x 9.5W LED SURFACED MTD. AND 1x42 CEILING MOUNTED	78	0.90				1	50	20	10	3-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C2	5X165VA DUPLEX CONVENIENCE OUTLET	825	3.59				1	50	20	10	3-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C3	1X1.0HP (WACU)	1,860	8.52				1	50	30	10	3-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C4	1X3.5KW (MULTI-POINT) WATER HEATER	3,500	15.22				1	50	30	10	3-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C5	S P A R E		-				1	50	20	10	-	-
	TOTAL =	6,338	27.40									

TOTAL CONNECTED LOAD:
IFL = 6.5377391304478 X (25%) + 27.40
= 28.76 APPLY 80% DEMAND FACTOR
= 23.01 A

PERCENTAGE VOLTAGE DROP COMPUTATION FOR THE MAXIMUM DISTANCE OF (9PB) PANEL BOARD TO RESPECTIVE ELECTRICAL (ROOM-1 AND ROOM-2) IN EVERY FLOOR, GROUND FLR. TO 5TH FLR ELECTRICAL ROOM, WITH THE MAXIMUM DISTANCE = 50 METERS

OVER CURRENT PROTECTION:
IFL= 6.5377391304478 X (1.5) = 23.63
= 40.41 A

%Volt = 22.61 IFL (10.8 RESISTIVITY OF COPPER(90ºC) (RHO) / AREA IN CIRCULAR MIL OF 8mm² = 16508
= 5,106 Vd (100%) / 230
= 2.22% %Vd not more than 3%Vd

PANEL "9PB"
TYPICAL: STUDIO UNIT PANEL BOARD IN ABS ENCLOSURE

VOLTAGE : 230 — WIRES : 2 + G — MAIN FEEDER: 2- 8.0 mm2 & 5.5 Gnd. 25mm PVC PIPE / CABLE TRAY
PHASE : 1 P — FREQ. 60 HZ — MAIN BREAKER : 50AT, 50AF, 1P + N, 10 KAIC WITH MAGNETIC CONTACTOR

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND (mm 2) THHN/THWN	CONDUIT MM DIA
C1	280.5W LED FRAUGHT RECESSED 18X5W CEILING LAMP	34	0.15				1	50	20	10	3-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C2	5X165VA DUPLEX CONVENIENCE OUTLET	825	3.59				1	50	20	10	3-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C3	1X1.0HP (WACU)	1,860	8.52				1	50	30	10	3-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C4	1X3.5KW (MULTI-POINT) WATER HEATER	3,500	15.22				1	50	30	10	3-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C5	S P A R E		-				1	50	20	10	-	-
	TOTAL =	6,319	27.47									

TOTAL CONNECTED LOAD:
IFL = 5.5217391304478 X
= 29.78 APPLY 80% DEMAND FACTOR
= 23.81 A

PERCENTAGE VOLTAGE DROP COMPUTATION FOR THE MAXIMUM DISTANCE OF (9PB) PANEL BOARD TO RESPECTIVE ELECTRICAL (ROOM-1 AND ROOM-2) IN EVERY FLOOR, GROUND FLR. TO 5TH FLR ELECTRICAL ROOM, WITH THE MAXIMUM DISTANCE = 50 METERS

OVER CURRENT PROTECTION:
IFL= 5.5217391304478 X
= 40.41 A

%Volt = 22.61 IFL (10.8 RESISTIVITY OF COPPER(90ºC) (RHO) / AREA IN CIRCULAR MIL OF 8mm² = 16508
= 5,106 Vd (100%) / 230
= 2.22% %Vd not more than 3%Vd

PANEL "1EDPB-A1"
GROUND FLOOR ELECTRICAL ROOM-1 BLDG.A
EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: —
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 150AT, 225AF, 3P + N, 18 KAIC, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA
C1	(1HPB-A122) PANEL BOARD	6,355	27.63				1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C2	(1HPB-A123) PANEL BOARD	6,355	27.63				1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C3	(1HPB-A124) PANEL BOARD	6,355		27.63			1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C4	(1HPB-A125) PANEL BOARD	6,355		27.63			1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C5	(1HPB-A126) PANEL BOARD	6,355			27.63		1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C6	(1HPB-A127) PANEL BOARD	6,355			27.63		1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C7	(1HPB-A128) PANEL BOARD	6,355	27.63				1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C8	(1HPB-A129) PANEL BOARD	6,355	27.63				1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C9	(1HPB-A130) PANEL BOARD	6,355		27.63			1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C10	(1HPB-A131) PANEL BOARD	6,355		27.63			1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C11	(1HPB-A132) PANEL BOARD	6,355			27.63		1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C12	(1HPB-A133) PANEL BOARD	6,355			27.63		1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C13	(1HPB-A140) PANEL BOARD	6,355	27.63				1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C14	(1HPB-A141) PANEL BOARD	6,355	27.63				1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C15	(1HPB-A142) PANEL BOARD	6,355		27.63			1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C16	(1HPB-A143) PANEL BOARD	6,355		27.63			1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C17	(1HPB-A144) PANEL BOARD	6,355			27.63		1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C18	(1HPB-148) PANEL BOARD	6,355	27.63				1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C19	(1HPB-A147) PANEL BOARD	6,355	27.63				1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C20	(1HPB-A148) PANEL BOARD	6,355		27.63			1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C21	(1SPB-A149) PANEL BOARD	6,355			27.63		1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C22	(1SPB-A150) PANEL BOARD	6,355			27.63		1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C23	IDF	7,000			30.43		1	50	50	10	2-5.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C24	(1HWPB-A1) PANEL BOARD	3,840	17.13				1	50	50	10	2-5.5mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	32mm Ø PVC PIPE
C25	SPARE						1	50	30	10		
	TOTAL =	157,195	335.17	221.04	223.64							

TOTAL CONNECTED LOAD:
IFL = 10 (25%) + 238.17
= 248.67 APPLY 33% DEMAND FACTOR *(%DF per Table 2.20.4.5 PEC)*
= 84.33 A

PANEL "1EDPB-A2"
GROUND FLOOR ELECTRICAL ROOM-2 BLDG.A
EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE : 400 /230 — WIRES : 4 + G — MAIN FEEDER: 4 - 100 mm2 & 22 Gnd. 63mm PVC pipe / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 200AT, 225AF, 3P + N, 18 KAIC, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND (mm 2) THHN/THWN	CONDUIT MM DIA
C1	1APB - A2 PANEL BOARD	25,082	36.58	41.62	30.85		3	100	60	10	4-14.0mm² THHN WIRE 1-8.0mm² GROUND (GREEN)	40mm Ø PVC PIPE
C2	(1HPB-A152) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C3	(1HPB-A161) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C4	(1HPB-A106) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C5	(1HPB-A105) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C6	(1HPB-A109) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C7	(1HPB-A108) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C8	(1HPB-A110) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C9	(1HPB-A107) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C10	(1HPB-A112) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C11	(1HPB-A188) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C12	(1HPB-A114) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C13	(1SPB-A111) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C14	(1HPB-A115) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C15	(1HPB-A113) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C16	(1HPB-A116) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C17	(1HPB-A117) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C18	(1SPB-A120) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C19	(1HPB-A117) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C20	(1SPB-A134) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C21	(1HPB-A119) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C22	SPARE						1	50	50	10		
C23	(1HPB-A121) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C24	(1HPB-A104) PANEL BOARD	6,355				27.63	1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C25	SPARE						1	50	50	10		
C26	(1HPB-A136) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C27	(1HPB-A138) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C28	(1HPB-A139) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C29	(1HPB-A137) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C30	IDF	7,000	30.43				1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C31	(1HPB-A118) PANEL BOARD	6,355				27.63	1	50	50	10	2-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
	TOTAL =	155,576	221.04	193.41	193.41							

TOTAL CONNECTED LOAD:
IFL = 10 (25%) + 221.04
= 233.04 APPLY 33% DEMAND FACTOR *(%DF per Table 2.20.4.5 PEC)*
= 73.77 A

PANEL "1HWPB-A1"
GROUND FLOOR ELECTRICAL ROOM-1 BLDG. A

VOLTAGE : 230 — WIRES : 2 + G — MAIN FEEDER: 2- 5.5mm2 & 3.5 GROUND IN 20 mmPVC pipe
PHASE : 1 P — FREQ. 60 HZ — MAIN BREAKER: 50AT, 50AF, 1P + N, 10 KAIC @ 230V MCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA
C1	59 X 9.5W LED LIGHT	475	2.07				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C2	SPARE						1	50	20	10	-	-
C3	8 X 165VA DUPLEX CONVENIENCE OUTLET	1,320	5.74				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C4	13 X DUPLEX CONVENIENCE OUTLET + FRESH AIR FAN	2,145	9.33				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
	TOTAL =	3,940	17.13									

TOTAL CONNECTED LOAD:
IFL = 17.13 APPLY 80% DEMAND FACTOR
= 13.70 A

PANEL "1APB-A2"
GROUND FLOOR ELECTRICAL ROOM-2 BLDG.A
ADMINISTRATION PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 4- 14.0 mm2 & 5.5 GROUND IN 25 mm PVC PIPE / CABLE TRAY
PHARE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 60AT, 100AF, 3P + N, 10 KAIC, MCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA
C1	SDPB-A2	2,177	9.47				1	50	30	10	2-5.0mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C2	1X 405 W FAN COIL, 2000 W FAN COIL	581	2.53				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C3	1.5 HP WINDOW TYPE ACCU	2,300		10.00			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C4	1.5 HP WINDOW TYPE ACCU	2,300		10.00			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C5	8 X 165 VA DUPLEX CONVENIENCE OUTLET	1,320			5.74		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C6	1X838 W FAN COIL, 2 X 222 W FAN COIL	1,353			5.88		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C7	1X838 W FAN COIL, 2 X 222 W FAN COIL	1,353	5.88				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C8	1.5 HP WINDOW TYPE ACCU	1,960	8.52				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C9	1X838 W FAN COIL, 2 X 222 W FAN COIL	1,353		5.66			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C10	11X 165 VA DUPLEX CONVENIENCE OUTLET	1,650		7.17			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C11	Basement Lighting	556			2.42		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C12	58 X 9.5w Led Light	687			2.99		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C13	6 X 165 VA DUPLEX CONVENIENCE OUTLET	990	4				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C14	1X838 W FAN COIL, 2 X 222 W FAN COIL	1,353	5.88				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C15	58 X 9.5w Led Light	618		2.68			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C16	1X838 W FAN COIL, 2 X 222 W FAN COIL	1,353		5.88			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C17	58 X 9.5w Led Light	2,805			12.29		1	50	30	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C18	Elevator supply	396			1.72		1	50	30	10	2-3.5mm² THHN WIRE 1-2.0mm² THHN GRD. WIRE (GREEN)	20mm Ø PVC PIPE
	TOTAL =	25,082	36.58	41.62	30.85							

TOTAL CONNECTED LOAD
IFL = 10 (25%) + 41.62
41.62 = 44.12 APPLY 80% DEMAND FACTOR
= 35.30 A

PANEL "SDPB-A2"
GROUND FLOOR LEVEL- SITE DEVELOPMENT/GUARD HOUSE BLDG-A
SITE DEVELOPMENT PLAN PANEL BOARD

VOLTAGE : 230 — WIRES : 2 + G — MAIN FEEDER: 2-5.5mm2 & 5.5 Gnd. 20 mmPVC pipe
PHASE : 1 P — FREQ. 60 HZ — MAIN BREAKER: 50AT, 50AF, 1P + N, 10 KAIC MCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA
C1	SITE DEVT LIGHTING	1,500	6.52				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C2	GATE BARRIER	500	2.17				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C3	S P A R E						1	50	20	10		
C4	1X 12W LED LIGHT + 1X165VA CONVENIENCE OUTLET	177	0.77				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
	TOTAL =	2,177	9.47									

TOTAL CONNECTED LOAD:
IFL = 10.87 APPLY 80% DEMAND FACTOR
= 8.70 A

PANEL "2EDPB-A1"
SECOND FLOOR ELECTRICAL ROOM-1 BLDG. A
EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 4 - 60 mm2 & 22 Gnd. 63mm PVC PIPE / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 150AT, 225AF, 3P + N, 18 KAIC, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND (mm 2) THHN/THWN	CONDUIT MM DIA
C1	(2HPB-A227) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C2	(2HPB-A228) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C3	(2HPB-A229) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C4	(2HPB-A230) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C5	(2HPB-A231) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C6	(2HPB-A232) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C7	(2HPB-A233) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C8	(2HPB-A234) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C9	(2HPB-A235) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C10	(2HPB-A236) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C11	(2SPB-A246) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C12	(2HPB-A247) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C13	(2HPB-A248) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C14	(2HPB-A249) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C15	(2HPB-A250) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C16	(2HPB-A251) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C17	(2HPB-A252) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C18	(2HPB-A253) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW G

PANEL "3EDPB-A1"
THIRD FLOOR ELECTRICAL ROOM-1 BLDG. A
EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 4- 60 mm2 & 14 Gnd. 63mm PVC PIPE / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 150AT, 225AF, 3P + N, 18 KAIC, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	(3SPB-A327) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C2	(3SPB-A328) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C3	(3SPB-A329) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C4	(3SPB-A330) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C5	(3SPB-A331) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C6	(3SPB-A332) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C7	(3SPB-A333) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C8	(3SPB-A334) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C9	(3SPB-A344) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C10	(3SPB-A345) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C11	(3SPB-A346) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C12	(3SPB-A347) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C13	(3SPB-A348) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C14	(3SPB-A349) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C15	(3SPB-A350) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C16	(3SPB-A351) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C17	(3SPB-A352) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C18	(3SPB-A353) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C19	(3SPB-A354) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C20	S P A R E	-					1	50	50	10	-	-
C21	IDF	7,000		11.93			1	50	30	10	2-5.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
C22	S P A R E	-					1	50	50	10	-	-
C23	IDF	7,000			30.43		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C24	S P A R E	-					1	50	50	10	-	-
C25	S P A R E	-					1	50	32	10	-	-
C26	S P A R E	-					1	50	20	10	-	-
	TOTAL =	129,804.50	192.29	178.75	195.25							

TOTAL CONNECTED LOAD:
IFL = 10 (25%) + 195.25
= 197.75 APPLY 37% DEMAND FACTOR *(NDF per Table 2.20.4.5 PEC)*
= 73.17 A

PANEL 3EDPB-A2
THIRD FLOOR ELECTRICAL ROOM-2 BLDG. A
EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 4 - 100 mm2 & 14 Gnd. 63mm PVC PIPE / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 200AT, 225AF, 3P + N, 18 KAIC, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	(3SPB-A301) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C2	(3SPB-A302) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C3	(3SPB-A303) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C4	(3SPB-A304) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C5	(3SPB-A305) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C6	(3SPB-A306) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C7	(3SPB-A307) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C8	(3SPB-A308) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C9	(3SPB-A309) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C10	(3SPB-A310) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C11	(3SPB-A311) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C12	(3SPB-A312) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C13	(3SPB-A313) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C14	(3SPB-A314) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C15	(3SPB-A315) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C16	(3SPB-A316) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C17	(3SPB-A317) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C18	(3SPB-A318) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C19	(3SPB-A319) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C20	(3SPB-A320) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C21	(3SPB-A321) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C22	(3SPB-A323) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C23	(3SPB-A322) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C24	(3SPB-A325) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C25	(3SPB-A324) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C26	(3SPB-A335) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C27	(3SPB-A326) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C28	(3SPB-A337) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C29	(3SPB-A339) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C30	(3SPB-A338) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C31	(3SPB-A341) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C32	(3SPB-A340) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C33	(3SPB-A342) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C34	(3SPB-A343) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C35	(3SPB-A341) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C36	3APB - A2 PANEL BOARD	6,232	9.14	8.11	9.84	3	50	30	10		4-5.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
C37	IDF	7,000	30.43			1	50	50	10		2-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C38	SPACE	-										
	TOTAL =	227,397	338.78	337.75	312.01							

TOTAL CONNECTED LOAD:
IFL = 10 (25%) + 338.78
= 341.28 APPLY 30% DEMAND FACTOR *(NDF per Table 2.20.4.5 PEC)*
= 102.38 A

PANEL "3HWPB-A1"
THIRD FLOOR ELECTRICAL ROOM-1 BLDG.A
HALLWAY PANEL BOARD

VOLTAGE : 230 — WIRES : 2 + G — MAIN FEEDER: 2- 5.5mm2 & 3.5 Gnd. 20 mmPVC pipe
PHASE : 1 P — FREQ. 60 HZ — MAIN BREAKER : 30AT, 50AF, 1P + N, 10 KAIC, MCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	40 x 8.5W/ Led Light	340	2.83				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C2	120 -165 VA DUPLEX CONVENIENCE OUTLET	2,146	9.33				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C3	S P A R E	-					1	50	20	10	-	-
C4	S P A R E	-					1	50	20	10	-	-
	TOTAL =	2,744	11.93									

TOTAL CONNECTED LOAD:
IFL = 0 (25%) + 11.93
= 11.93 APPLY 80% DEMAND FACTOR
= 9.54 A

PANEL "3APB-A2"
THIRD FLOOR ELECTRICAL ROOM-2 BLDG.A
ADMINISTRATION PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 4- 5.5mm2 & 5.5 Gnd. 32 mmPVC pipe
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 30AT, 100AF, 3P + N, 10 KAIC, @ 230V, MCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	11X 100 VA DUPLEX CONVENIENCE OUTLET	1,815	7.89				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C2	08 -100 VA DUPLEX CONVENIENCE OUTLET	898	1.26				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C3	50 x 29W Led Light	1,450		6.48			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C4	24 x 12W Led Light	360		1.60			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C5	16 KW W FAN COIL 4X 254 W FAN COIL	1,764			7.67		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C6	FAP-3F-A2	500			2.17		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C7	S P A R E	-			-		1	50	20	10	-	-
C8	S P A R E	-			-		1	50	20	10	-	-
	TOTAL =	6,232.00	9.14	8.11	9.84							

TOTAL CONNECTED LOAD:
IFL = 3.41 (25%) + 9.84
= 10.69 APPLY 80% DEMAND FACTOR
= 8.55 A

PANEL 4EDPB-A1
FOURTH FLOOR ELECTRICAL ROOM-1 BLDG. A
EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 4- 30 mm2 & 8.0 Gnd. 50mm PVC PIPE / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 100AT, 100AF, 3P + N, 18 KAIC, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	(4SPB-A426) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C2	(4SPB-A427) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C3	(4SPB-A428) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C4	(4SPB-A429) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C5	(4SPB-A430) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C6	(4SPB-A441) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C7	(4SPB-A431) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C8	(4SPB-A443) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C9	(4SPB-A442) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C10	(4SPB-A445) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C11	(4SPB-A444) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C12	(4SPB-A447) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C13	(4SPB-A448) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C14	(4SPB-A450) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C15	(4SPB-A446) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C16	IDF	7,000		30.43			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C17	(4SPB-A449) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C18	S P A R E	-					1	50	50	10		
C19	(4SPB-A451) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C20	S P A R E	-					1	50	50	10		
C21	(4HWPB-A1) PANEL BOARD	1,857		8.48			1	50	50	10	2-5.5mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C22	S P A C E	-										
	TOTAL =	108,104.00	192.29	167.78	137.35							

TOTAL CONNECTED LOAD:
IFL = 10 (25%) + 192.29
= 194.79 APPLY 38% DEMAND FACTOR *(NDF per Table 2.20.4.5 PEC)*
= 74.02 A

PANEL "4EDPB-A2"
FOURTH FLOOR ELECTRICAL ROOM-2 BLDG. A
EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 4- 100 mm2 & 14 Gnd. 63mm PVC PIPE / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 200AT, 225AF, 3P + P, 18 KAIC, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	(4APB-B2) PANEL BOARD	6,298	10.96	15.33	5.21		3	50	30	10	4-5.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
C2	(4SPB-A402) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C3	(4SPB-A401) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C4	(4SPB-A404) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C5	(4SPB-A403) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C6	(4SPB-A406) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C7	(4SPB-A405) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C8	(4SPB-A408) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C9	(4SPB-A407) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C10	(4SPB-A410) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C11	(4SPB-A409) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C12	(4SPB-A412) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C13	(4SPB-A411) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C14	(4SPB-A414) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C15	(4SPB-A413) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C16	(4SPB-A416) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C17	(4SPB-A415) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C18	(4SPB-A418) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C19	(4SPB-A417) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C20	(4SPB-A420) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C21	(4SPB-A419) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C22	(4SPB-A422) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C23	(4SPB-A421) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C24	(4SPB-A424) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C25	(4SPB-A423) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C26	(4SPB-A432) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C27	(4SPB-A425) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C28	(4SPB-A434) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C29	(4SPB-A433) PANEL BOARD	8,000			27.47		1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C30	(4SPB-A436) PANEL BOARD	6,319	34.78				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C31	(4SPB-A435) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C32	(4SPB-A438) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C33	(4SPB-A437) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE, 1-3.5mm² GROUND (GRE

PANEL "5APB-A2"

FIFTH FLOOR ELECTRICAL ROOM-2 BLDG.A

ADMINISTRATION PANEL BOARD

VOLTAGE : 400 / 230 | WIRES : 4 - G | MAIN FEEDER: 4- 5.5mm2 & 3.5 Gnd. 25 mmPVC pipe

PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 30AT, 100AF, 3P + N, 10 KAIC, MCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	9-DUPLEX CONVENIENCE OUTLET	1,485	8.07				1	50	20	10	2-3.5mm² THWN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C2	S P A R E						1	50	20	10		
C3	20 x12 w Led Light	240		1.04			1	50	20	10	2-3.5mm² THWN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C4	FAF-SF-A2	550		2.39			1	50	20	10	2-3.5mm² THWN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C5	9-DUPLEX CONVENIENCE OUTLET	1,485			6.46		1	50	20	10	2-3.5mm² THWN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C6	1X 628 W FAN COIL,-4X 264 W FAN COIL	1,764			7.67		1	50	20	10	2-3.5mm² THWN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C7	24 x12 w Led Light	288	1.57				1	50	20	10	2-3.5mm² THWN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C8	S P A R E						1	50	20	10	-	-
	TOTAL =	5,024	8.07	3.43	14.13							

TOTAL CONNECTED LOAD:

IFL = 3.41 (25%) + 14.13

= 14.98 APPLY 80% DEMAND FACTOR

= 11.98 A

PANEL "5HWPB-A1"

FIFTH FLOOR ELECTRICAL ROOM-1 BLDG.A

HALLWAY PANEL BOARD

VOLTAGE : 230 | WIRES : 2 - G | MAIN FEEDER: 2- 5.5mm2 & 3.5mm2 Gnd. 20 mm PVC pipe

PHASE : 1 P | FREQ. 60 HZ | MAIN BREAKER : 30AT, 50AF, 1P + N, 10 KAIC, MCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	27 x12 w Led Light	924	4.02				1	50	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C2	12X165W,A DUPLEX CONVENIENCE OUTLET	1,980	8.61				1	50	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C3	S P A R E						1	50	20	10	-	-
	TOTAL =	2,904	12.63									

TOTAL CONNECTED LOAD:

IFL = 0 (25%) + 12.63

= 12.63 APPLY 80% DEMAND FACTOR

= 10.10 A

PANEL " MDPB-A1 "

GROUND FLOOR ELECTRICAL ROOM-1 BLDG. A

PANEL BOARD

VOLTAGE : 400 / 230 | WIRES : 4 + G | MAIN FEEDER: 2 SETS OF 4 - 100mm2 & 22 Gnd. 63 mm PVC pipe

PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 400AT, 400AF, 3P + N, 50 KAIC MAIN CB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	(1EDPB-A1) PANEL BOARD	157,106	238.17	221.04	223.84		3	225	150	18	4 - 60mm2 THHN WIRE, 1 - 14mm2 TW GRD.	63 mm PVC pipe/CABLE TRAY
C2	(2EDPB-A1) PANEL BOARD	142,693	219.76	222.72	177.84		3	225	150	18	4 - 60mm2 THHN WIRE, 1 - 14mm2 TW GRD.	63 mm PVC pipe/CABLE TRAY
C3	(3EDPB-A1) PANEL BOARD	129,805	192.29	178.75	195.25		3	225	150	18	4 - 60mm2 THHN WIRE, 1 - 14mm2 TW GRD.	63 mm PVC pipe/CABLE TRAY
C4	S P A R E					0	3	225	150	18	-	-
C5	(5EDPB-A1) PANEL BOARD	104,689	195.25	149.98	109.88		3	100	100	18	4 - 30mm2 THHN WIRE, 1 - 8.0mm2 TW GRD.	50 mm PVC pipe/CABLE TRAY
C6	(4EDPB-A1) PANEL BOARD	108,104	192.29	167.76	137.35		3	100	100	18	4 - 30mm2 THHN WIRE, 1 - 8.0mm2 TW GRD.	50 mm PVC pipe/CABLE TRAY
	TOTAL =	534,280	845.48	770.49	706.82	-						

TOTAL CONNECTED LOAD:

IFL = 10 (25%) + 845.48 + 0

= 847.98 APPLY 23% DEMAND FACTOR table 2.20.4.5 PEC)

= 195.04 A

PANEL "MDPB-A2"

GROUND FLOOR ELECTRICAL ROOM-2 BLDG. A

PANEL BOARD

VOLTAGE : 400 / 230 | WIRES : 4 + G | MAIN FEEDER: 2 SETS- 4 - 250mm2 & 50mm GROUND. 90 mm PVC / PIPE TRAY

PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 700AT, 800AF, 3P + N, 50 KAIC MAIN CB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	(1EDPB-A2) PANEL BOARD	158,878	221.04	193.41	193.41		3	225	200	18	4 - 100mm2 THHN WIRE, 1 - 14mm2 GROUND	63 mm PVC pipe/CABLE TRAY
C2	(2EDPB-A2) PANEL BOARD	221,846	332.00	329.64	357.11		3	225	200	18	4 - 100mm2 THHN WIRE, 1 - 14mm2 GROUND	63 mm PVC pipe/CABLE TRAY
C3	(3EDPB-A2) PANEL BOARD	227,397	338.76	337.75	312.01		3	225	200	18	4 - 100mm2 THHN WIRE, 1 - 14mm2 GROUND	63 mm PVC pipe/CABLE TRAY
C4	(4EDPB-A2) PANEL BOARD	223,527	367.39	302.17	302.17		3	225	200	18	4 - 100mm2 THHN WIRE, 1 - 14mm2 GROUND	63 mm PVC pipe/CABLE TRAY
C5	(5EDPB-A2) PANEL BOARD	215,527	329.64	302.17	305.13		3	225	200	18	4 - 100mm2 THHN WIRE, 1 - 14mm2 GROUND	63 mm PVC pipe/CABLE TRAY
C6	S P A R E					0	3	225	200	18	-	-
	TOTAL =	1,047,173	1,589.46	1,465.14	1,469.84	-						

TOTAL CONNECTED LOAD:

IFL = 10 (25%) + 1589.46 + 0

= 1,591.96 APPLY 23% DEMAND FACTOR table 2.20.4.5 PEC)

= 366.15 A

PANEL "5MPB-A2"

FIFTH FLOOR, BLDG. A

VOLTAGE : 400 / 230 | WIRES : 3 + G | MAIN FEEDER : 3 - 125mm2 & 22mm2 Gnd. 75 mmPVC pipe

PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 250AT, 400AF, 3P, 50 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	S P A R E						3	100	100	25		
C2	S P A R E						3	100	100	25	-	-
C3	SEF-RD-07, 1.5 HP	1,388				2.02	3	100	60	25	3-2.6mm² THWN WIRE 1-5.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
C4	FAF-RD-07, 5HP	4,660				6.71	3	100	60	25	3-3.5mm² THWN WIRE 1-5.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
	TOTAL =	6,048				8.73						

TOTAL CONNECTED LOAD:

IFL = 6.71 (0.25) + 8.73

= 10.41 A

OVER CURRENT PROTECTION: SOFT START

IFL = 6.71 (1.5) + 8.73 A

= 19 A

PANEL "5MPB"

BASEMENT MECHANICAL PANEL BOARD

VOLTAGE : 400 / 230 | WIRES : 3 + G | MAIN FEEDER: 3 - 26mm2 & 14mm2 Gnd. 50 mm PVC pipe

PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 125AT, 225AF, 3P, 35 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	3 x 7.5 HP, 3P, 400V, PRESSURE PUMP(PLUMBING)	20,625				29.77	3	60	30	25	3-14mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	32mm Ø PVC PIPE / CABLE TRAY
C2	3 x 7.5 HP, 3P, 400V, PRESSURE PUMP(PLUMBING)	20,625				29.77	3	60	30	25	3-14mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	32mm Ø PVC PIPE / CABLE TRAY
C3	DUPLEX DOL SUMP PIT PUMP 7.5 HP	13,750				19.85	3	60	30	25	3-8.0mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE / CABLE TRAY
C4	DUPLEX DOL SUMP PIT PUMP 5HP	7,480				10.74	3	60	30	25	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE / CABLE TRAY
C5	FAF-SI-A1, 1.5HP	1,388				2.02	3	60	30	25	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE / CABLE TRAY
C6	EAF-2F-A1, 1.5 HP	1,388				2.02	3	60	30	25	3-3.5mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	20mm Ø PVC PIPE / CABLE TRAY
C7	S P A R E					-	3	60	30	25		
C8	S P A R E					-	3	60	30	25		
C9	S P A R E						3	60	30	25	-	-
C10	S P A R E						3	60	30	25	-	-
	TOTAL =	65,235	-			94.17						

TOTAL CONNECTED LOAD

IFL = 12.65 (0.25) + 94.17

= 97.33 A

OVER CURRENT PROTECTION: SOFT START

IFL = 12.65 (1.5) + 94.17

= 113.15 A

PANEL "5MPB-A1"

FIFTH FLOOR ELECTRICAL ROOM-1 BLDG.A

VOLTAGE : 400 /230 | WIRES : 3 + G | MAIN FEEDER: 2SETS OF 3 - 100 mm2 & 22 Gnd. 75mm PVC PIPE / CABLE TRAY

PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 400AT, 400AF, 3P + N, 35 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	(5MPB-A0) PANEL BOARD	8,647.6	-	-	-	8.73	3	400	250	30	3-125mm² THHN WIRE 1-22mm² GROUND (GREEN)	75mm Ø PVC PIPE / CABLE TRAY
C2	SAF-04-RD-A1, 1.5HP + SEF-RD-08, 1.5 HP	2,765				4.69	3	100	100	25	2SETS 3#3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	25mm Ø PVC PIPE
C3	PAF-RD-08,7.5HP	6,675				9.92	3	100	100	25	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
C4	S P A C E										-	-
C5	S P A C E	3,720										
	TOTAL =	15,716	-			22.68						

TOTAL CONNECTED LOAD

IFL = 36.08 (0.25) + 22.68

= 31.76 A

OVER CURRENT PROTECTION: SOFT START

IFL = 36.08 (1.5) + 22.68

= 76.80 A

PANEL "5MPB-A2"

FIFTH FLOOR ELECTRICAL ROOM-2 BLDG.A

VOLTAGE : 400/230 | WIRES : 3 + G | MAIN FEEDER: 2 SETS OF 3 - 200 mm2 & 38 Gnd. 90mm PVC PIPE / CABLE TRAY

PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER: 600AT, 600AF, 3P, 50 KAIC, 400v, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	(5MPB - A1) PANEL BOARD	15,716	-	-	-	22.68	3	400	400	50	2-SETS OF 4-400mm² THHN WIRE 1-300mm² GROUND	2-76mm Ø PVC PIPE / CABLE TRAY
C2	(5MPB - A3) PANEL BOARD	6,048	-	-	-	8.73	3	400	250	30	3-125mm² THHN WIRE 1-22mm² GROUND (GREEN)	75mm Ø PVC PIPE / CABLE TRAY
C3	ODU-2F-5F ARUN168LLS5	23,640				27.36	3	100	100	30	3-14mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	32mm Ø PVC PIPE
C4	PAF-P, L-A, SHP + EAF-SB-RD-A2, 3HP + PAF-RD-01, 7.5 HP	15,589				19.92	3	100	100	30	3#8TS 3-5.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	3#8TS 32mm Ø PVC PIPE / CABLE TRAY
C5	ODU-0F-2 ARUN160LLS5	27,045				31.89	3	100	75	30	3-14mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	32mm Ø PVC PIPE
C6	S P A C E											
C7	SEF-RD-01, 1.5 HP	1,388				2.02	3	100	40	30	3-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE / CABLE TRAY
C8	ODU-0F-1 ARUN130LLS5	28,178				29.90	3	100	40	30	3-3.5mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	32mm Ø PVC PIPE/CABLE TRAY
	TOTAL =	157,912	-			135.15						

TOTAL CONNECTED LOAD

IFL = 36.06 (0.25) + 135.15

= 144.17 A

OVER CURRENT PROTECTION: SOFT START

IFL = 36.06 (1.5) + 135.15

= 189.27 A

PANEL "SL-PB"

VOLTAGE : 400 / 230 | WIRES : 3 + G | MAIN FEEDER: 3 - 60mm2 & 14 Gnd. 63 mm PVC PIPE / CABLE TRAY

PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 150AT, 225AF, 3P + N, 30 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	10 HP, 3P , 400V , 60HZ (ELEVATOR - 1)	16,731.00				24.15	3	50	50	25	3-8.0mm² THHN WIRE 1-5.5 mm² GROUND (GREEN)	32mm Ø PVC PIPE / CABLE TRAY
C2	10 HP, 3P , 400V , 60HZ (ELEVATOR - 2)	16,731.00				24.15	3	50	50	25	3-8.0mm² THHN WIRE 1-5.5 mm² GROUND (GREEN)	32mm Ø PVC PIPE / CABLE TRAY
C3	15 HP, 3P , 400V , 60HZ (ELEVATOR - 3)	16,731.00				24.15	3	50	50	25	3-8.0mm² THHN WIRE 1-5.5 mm² GROUND (GREEN)	32mm Ø PVC PIPE / CABLE TRAY
C4	S P A R E					-	3	50	50	25		
	TOTAL =	50,193.00	-			72.45						

TOTAL CONNECTED LOAD:

IFL = 24.15 (0.25) + 72.45

= 78.49 A

OVER CURRENT PROTECTION: SOFT START

IFL = 24.15 (1.5) + 72.45

= 108.68 A

PANEL "MDPBC"

GROUND FLOOR, ELECTRICAL ROOM-2 BLDG.C

MAIN DISTRIBUTION PANEL BOARD BLDG.C

VOLTAGE : 400 / 230 | WIRES : 4 + G | MAIN FEEDER: 4 - 125mm2 & 22 Gnd. 75 mm PVC PIPE CABLE TRAY

PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 600AT, 800AF, 3P, 50 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	S P A R E					-	3	250	150	18		
C2	S P A R E					-	3	250	150	18		
C3	WATER HEATER	1,388				2.02	3	250	150	18	3 - 5.5mm2 THHN WIRE, 1 - 3.5mm2 TW GRD. WIRE (GREEN)	50mm Ø PVC PIPE
C4	ECB ISWIMMING POOL	10,000.00				14.49	3	250	150	18	3-14mm² THHN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	32mm Ø PVC PIPE
C5	ODU-0F-1 ARUN090LLS5 (MASTER)	47,198				54.00	3	250	150	18	3-14mm² THHN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	32mm Ø PVC PIPE
C6	ODU-0F-2 ARUN140LLS5 (SLAVE)	22,603				28.10	3	100	60	18	4-8.0mm² THHN WIRE 1-8.0mm² TW GRD. WIRE (GREEN)	32mm Ø PVC PIPE
C7	(1DRB - C) PANEL BOARD	17,400.00	22.28	30.45	22.93		3	100	60	18	4-8.0mm² THHN WIRE 1-8.0mm² TW GRD. WIRE (GREEN)	32mm Ø PVC PIPE
C8	(2DRB - C) PANEL BOARD	29,581.00	26.15	31.65	42.66		3	100	60	18	4-8.0mm² THHN WIRE 1-8.0mm² TW GRD. WIRE (GREEN)	32mm Ø PVC PIPE
C9	ODU-2F-1 ARUN140LLS5	25,642				27.30	3	100	60	18	4-8.0mm² THHN WIRE 1-8.0mm² TW GRD. WIRE (GREEN)	32mm Ø PVC PIPE
C12	ODU-2F-2 ARUN140LLS5	22,603				26.10	3	100	40	18	4-8.0mm² THHN WIRE 1-8.0mm² TW GRD. WIRE (GREEN)	32mm Ø PVC PIPE
C10	FRESH AIR BLOWER 10 HP	7,467				10.76	3	100	60	18	3-5.5mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C11	EXHAUST BLOWER 10 HP	7,467				10.76	3	100	40	18	3-5.5mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
	TOTAL =	94,663.75	30.41	62.09	65.59	74.92						

TOTAL CONNECTED LOAD

IFL = 49.3 (25%) + 65.59 + 74.92

= 151.34 APPLY 60% DEMAND FACTOR

= 121.07 A

PANEL "5MPB-A3"

FIFTH FLOOR, BLDG. A

VOLTAGE : 400 / 230 | WIRES : 3 + G | MAIN FEEDER : 3 - 125mm2 & 22mm2 Gnd. 75 mmPVC pipe

PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 250AT, 400AF, 3P, 30 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THWN/THWN	CONDUIT MM DIA.
C1	S P A R E						3	100	100	25		
C2	S P A R E						3	100	100	25	-	-
C3	SEF-RD-02, 1.5 HP + PAF-RD-02, 5HP	8,049				8.73	3	100	60	25	3-5.5mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
C4	SEF-RD-08, 1.5HP	1,398				2.02	3	100	60	25	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
	TOTAL =	7,440				10.75						

TOTAL CONNECTED LOAD:

IFL = 2.02 (0.25) + 10.75

= 11.26 A

OVER CURRENT PROTECTION: SOFT START

IFL = 2.02 (1.5) + 10.75 A

= 14 A

BUILDING A

1 / E-23 **LOAD SCHEDULE 3**

SCALE NTS

OWNER : NGAC PHASE I JV COMPANY AND	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA Bases Conversion and Development Authority VIVENCIO B. DIZON PRESIDENT MTD Clark Inc. PATRICK NICHOLAS P. DAVID PRESIDENT	FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0000657 PTR No: 5115495 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "A" LOAD SCHEDULE 3	E-23

PANEL "1DPB-C"
GROUND FLOOR BLDG-C ELECTRICAL ROOM
DISTRIBUTION PANEL BOARD

VOLTAGE : 400/230 — WIRES : 4 + G — MAIN FEEDER: 4- 8.0mm2 & 5.5 Gnd. 32 mm PVC PIPE / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 60AT, 100AF, 3P + N, 18 KAIC, 400V, MCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	AMPS PER PHASE BN	AMPS PER PHASE CN	AMPS PER PHASE 3ø	CKT. BREAKER P	CKT. BREAKER A.F	CKT. BREAKER A.T	CKT. BREAKER KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	2X1.5 KW RANGE OUTLET + DUPLEX CONVINENCE OUTLET	3,000		13.04			1	50	40	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C2	LIGHTING OUTLET	1,000	4.35				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C3	LIGHTING OUTLET	1,000		4.35			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C4	LIGHTING OUTLET	1,000		4.35			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C5	LIGHTING OUTLET	1,000			4.35		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C6	DUPLEX CONVENIENCE OUTLET	2,145	9.33				1	50	30	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C7	DUPLEX CONVENIENCE OUTLET	990	4.30				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C8	4X 500 VA REFRIGERATOR	2,000		8.70			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C9	2X1.5 KW RANGE OUTLET	3,000		13.04			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C10	5X405 W FAN COIL UNIT	2,025			8.80		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C11	DUPLEX CONVENIENCE OUTLET	990	4.30				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C12	18X 100 W CEILING FAN	2,250			9.78		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
	TOTAL =	17,400	22.28	30.43	22.93							

TOTAL CONNECTED LOAD:
IFL = 2.2 (25%) + 30.43
= 30.98 APPLY 80% DEMAND FACTOR
= 24.78 A

PANEL "2DPB-C"
SECOND FLOOR BLDG-C ELECTRICAL ROOM
DISTRIBUTION PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 4- 8.0mm2 & 5.5 Gnd. 32 mm PVC PIPE / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 60AT, 100AF, 3P + N, 18 KAIC, 400V, MCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	AMPS PER PHASE BN	AMPS PER PHASE CN	AMPS PER PHASE 3ø	CKT. BREAKER P	CKT. BREAKER A.F	CKT. BREAKER A.T	CKT. BREAKER KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	LIGHTING OUTLET	1,000	4.35				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C2	LIGHTING OUTLET	1,000	4.35				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C3	LIGHTING OUTLET	1,000		4.35			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C4	LIGHTING OUTLET	1,000		4.35			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C5	LIGHTING OUTLET	1,000			4.35		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C6	LIGHTING OUTLET	1,000			4.35		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C7	7X100 W CEILING FAN	1,500	6.52				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C8	DUPLEX CONVENIENCE OUTLET	660	2.87				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C9	DUPLEX CONVENIENCE OUTLET	1,155		5.02			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C10	DUPLEX CONVENIENCE OUTLET	1,155		5.02			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C11	DUPLEX CONVENIENCE OUTLET	1,650			7.17		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C12	DUPLEX CONVENIENCE OUTLET	1,155			5.02		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C13	DUPLEX CONVENIENCE OUTLET	1,155	5.02				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C14	DUPLEX CONVENIENCE OUTLET	1,155	5.02				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C15	DUPLEX CONVENIENCE OUTLET	1,485		6.46			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C16	DUPLEX CONVENIENCE OUTLET	1,485		6.46			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C17	FAN COIL UNITS	1,500			6.52		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C18	LIGHTING OUTLET	1,506			6.55		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C19	LIGHTING OUTLET	1,000			4.35		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
C20	LIGHTING OUTLET	1,000			4.35		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² GROUND (GREEN)	20mm Ø PVC PIPE
	TOTAL =	23,581	28.13	31.65	42.66							

TOTAL CONNECTED LOAD:
IFL = 6.52 (25%) + 42.66
= 44.29 APPLY 80% DEMAND FACTOR
= 35.43 A

"FFPB ECB/ATS"
BASEMENT FIRE PUMP ECB

VOLTAGE : 400 / 230 — WIRES : 3 + G — MAIN FEEDER: 3 - 50mm2 & 14 Gnd. 80 mm PVC pipe
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 500AT, 600AF, 3P, 65 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	AMPS PER PHASE BN	AMPS PER PHASE CN	AMPS PER PHASE 3ø	CKT. BREAKER P	CKT. BREAKER A.F	CKT. BREAKER A.T	CKT. BREAKER KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	1050 HP, 3P, 400 V, FIRE PUMP ECB	51,788				74.75	3	600	500	65	3-50mm² THHN WIRE 1-14mm² GROUND (GREEN)	50mm Ø PVC PIPE
	TOTAL =	51,788				74.75						

TOTAL CONNECTED LOAD:
IFL = 74.75 (25%) + 74.75
= 93.44 A

PANEL "MMDPB-A2"
GROUND FLOOR ELECTRICAL ROOM-2 BLDG. A
MAIN MECHANICAL PANEL BOARD

VOLTAGE : 400 /230 — WIRES : 3 + G — MAIN FEEDER: 3 SETS OF 3 - 250mm2 & 30 Grid. 110 mm PVC pipe
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 1000AT, 1200AF, 3P + N, 50 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	AMPS PER PHASE BN	AMPS PER PHASE CN	AMPS PER PHASE 3ø	CKT. BREAKER P	CKT. BREAKER A.F	CKT. BREAKER A.T	CKT. BREAKER KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	SMPB - A2	107,911.74				135.15	3	800	800	30	3 SETS 3-300mm² THHN, 1-300mm² GROUND (GREEN)	3-90mm Ø PVC PIPE
C2	SMPB	65,236.00	-	-	-	94.17	3	225	125	30	3-30mm² THHN, 1-14mm² GROUND (GREEN)	50mm Ø PVC PIPE
C3	ELPB	50,193.00	-	-	-	72.45	3	225	150	30	3-80mm² THHN, 1-14mm² GROUND (GREEN)	63mm Ø PVC PIPE
C4	SPARE		-	-	-		3	100	60	30		
	TOTAL =	223,336.74				301.77						

TOTAL CONNECTED LOAD:
IFL = 36.08 (0.25) + 301.77
= 310.79 A

OVER CURRENT PROTECTION:
IFL = 36.08 (1.5) + 301.77
= 355.89 A

PANEL MDP-A/ATS
GROUND FLOOR TRANSFORMER ELECTRICAL ROOM
MAIN DISTRIBUTION PANEL BOARD

VOLTAGE : 400 /230 — WIRES : 4 + G — MAIN FEEDER: (7 SETS- 4 - 250mm2) + 7X 30mm2 Gnd. 110 mmPVC pipe
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 2500AT, 2500AF, 3P, 65 KAIC @ 400V MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	AMPS PER PHASE BN	AMPS PER PHASE CN	AMPS PER PHASE 3ø	CKT. BREAKER P	CKT. BREAKER A.F	CKT. BREAKER A.T	CKT. BREAKER KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	(MMDPB-A2) PANEL BOARD	223,340				301.77	3	1200	1000	50	3 SETS - 3 - 250mm2 THHN WIRE, 1 -30mm2 TW GRD.	3-90 mm PVC pipe
C2	(MDPB-A2) PANEL BOARD	1,047,173	1,589.46	1,485.14	1,489.84	0	3	800	700	50	2 SETS - 4 - 250mm2 THHN WIRE, 1 - 30mm2 TW GRD.	2-90 mm PVC pipe
C4	(MDPC) PANEL BOARD	94,664	59.41	62.08	65.59	74.92	3	600	630	50	2 SETS - 4 - 150mm2 THHN WIRE, 1 - 30mm2 TW GRD.	2-90 mm PVC pipe
C3	(MDPB-A1) PANEL BOARD	534,293	845.48	770.49	706.82		3	400	400	50	2 SETS - 4 - 100mm2 THHN WIRE, 1 - 30mm2 TW GRD.	2-63 mm PVC pipe
C5	S P A R E					-	3	400	400	50	-	-
	TOTAL =	534,293	845.48	770.49	706.82	-						

TOTAL CONNECTED LOAD:
IFL = 40.3 (0.25) + 845.48 (25% D.F) + 0 (80% D.F)
= 206.29 A

TRANSFORMER REQUIREMENT:
KVA = 206.29 X (400V) x (1.732) / 1000 — USE: 1-1.6 MVA PAD MOUNTED POWER TRANSFORMER; 13.8KV/7960V , PRIMARY 3-PHASE, 60HZ; 400Vac LINE TO LINE 230Vac LINE TO NEUTRAL, SECONDARY
= 142.22

GENERATOR SET REQUIREMENT

IT = 2564.42 A (25% D.F) + 591.00 (75 D.F)

IT = 1,033.13 A

KVA = 1033.13 (400V) X (1.732) / 1,000

KVA (TOTAL)= 715.75

KVA = 357.88

USE: 2 SETS OF 500 Kw , 60 HZ STAND-BY GENERATOR SET
VOLTAGE : 400 Vac LINE - LINE / 230 Vac LINE - NEUTRAL
3 - PHASE , 4 WIRES , 80% PF , 60 HZ

GENERATOR (IFL) FULL LOAD CURRENT :

IFL = 500 (1,000) / 0.8 / 400V (1.732)

IFL = 902.14

USE : GENERATOR PANEL BOARD

1.) 3 SETS OF — 3-250mm² THW WIRE (1,125 A / 902 A) IN 88.9mm Ø IMC PIPE (3 1/2" Ø)
1-250mm² THW NEUTRAL WIRE (WHITE)
1-60mm² TW GROUND WIRE (GREEN)

2.) 1000 AT / 1200 AF , 3P , 50 KA @ 400 V MAIN CB

APPROXIMATE DIMENSION : 3000 mm LENGTH x 1,140 mm WIDTH x 1,841 mm HEIGHT (OPEN TYPE)
DRY WEIGHT (OPEN TYPE) : 2,500 KG
FREQUENCY : 60 HZ

MEDIUM VOLTAGE SWITCH GEAR

1.8 MVA , 13.8 KV , PRIMARY
400Vac LINE - LINE / 230 Vac LINE - NEUTRAL SECONDARY

SHORT CIRCUIT CAPACITY:

MVA(SC)= 100 @t=3SEC

I(SC)= 100 x 1,000,000 / (1.732 x 13,800) = 4183.7 A

WHERE:

A	-	*WIRE CROSS SECTONAL AREA*	50.90 sq. mm.
I(SC)	-	*CURRENT (AMPERE, rms)*	4,183.70 A
t	-	*CURRENT LET-THROUGH TIME (SEC.)*	3.00 SEC
T(f)	-	*WIRE TEMPERATURE DUE TO SHORT CIRCUIT (°C)*	250°C
T(i)	-	*WIRE OPERATING TEMPERATURE (°C)*	90°C

A= √(((4183.7)² x 3 sec.) / (50,500 log(e)((234 + 250)/(234 + 90))))

A= 50.90 sq. mm.

USE:
1.) 1 SET OF (3 - 1 x 50mm²) XLPE POWER CABLE, 15 KV (SHIELDED) 133% BIL COPPER IN 110mmØ PVC PIPE SCH.40
1 SET OF 1-50mm² BCW GRD WIRE IN 110mmØ PIPE

2.) 630 AT, 25 KA SHORT TIME WITHSTAND CURRENT
67.5 KA, RATED PEAK CURRENT, 13.8 KV, RATED VOLTAGE

NOTE: USE 3M MEDIUM VOLTAGE, COLD SHRINK TERMINATION KITS

BUILDING A
1 / E-24 LOAD SCHEDULE 4
SCALE NTS

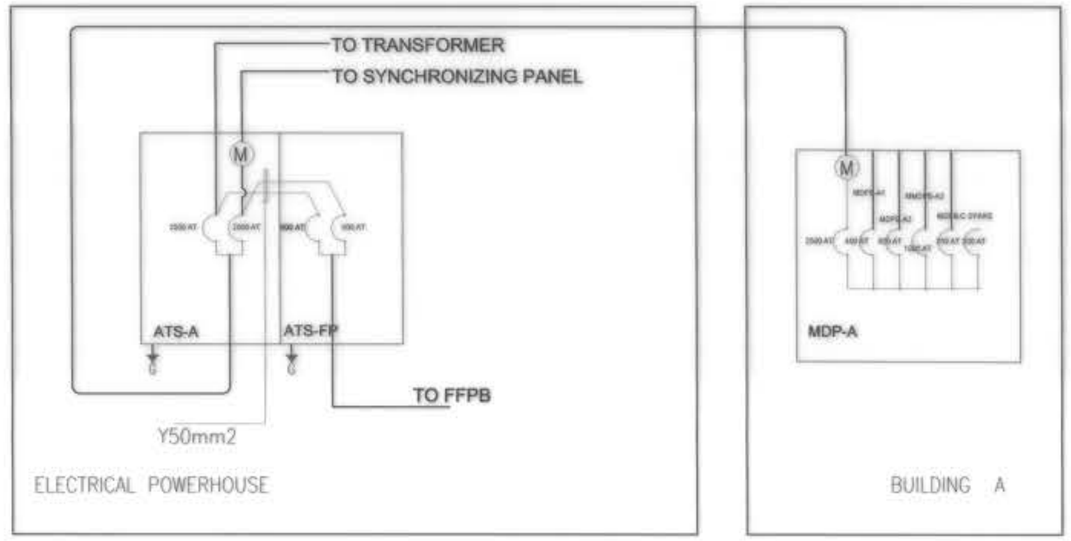
OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS: / SHEET NO.
BCDA AND MTD Clark — VIVENCIO B. DIZON, PRESIDENT; PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION — ZOILO S. DELA CRUZ, VICE PRESIDENT - OPERATION — REG No.: 0022657 — TIN No.: 116-426-274 — DATE: 01.20.2019 — PTR No: 8118498 — PLACE: MANILA	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT	TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING — NGAC PHASE 1A — ATHLETES VILLAGE - BUILDING A — ELECTRICAL — New Clark City, Capas, Tarlac	BUILDING "A" LOAD SCHEDULE 4 — E-24

LEGEND:

x1 = 1-3.5mm² THW WIRE IN 20Ømm PVC PIPE
x2 = 2-3.5mm² THW WIRE IN 20Ømm PVC PIPE
x3 = 3-3.5mm² THW WIRE IN 20Ømm PVC PIPE
x4 = 4-3.5mm² THW WIRE IN 20Ømm PVC PIPE
x5 = 5-3.5mm² THW WIRE IN 20Ømm PVC PIPE

LEGEND FOR ROOF DECK:

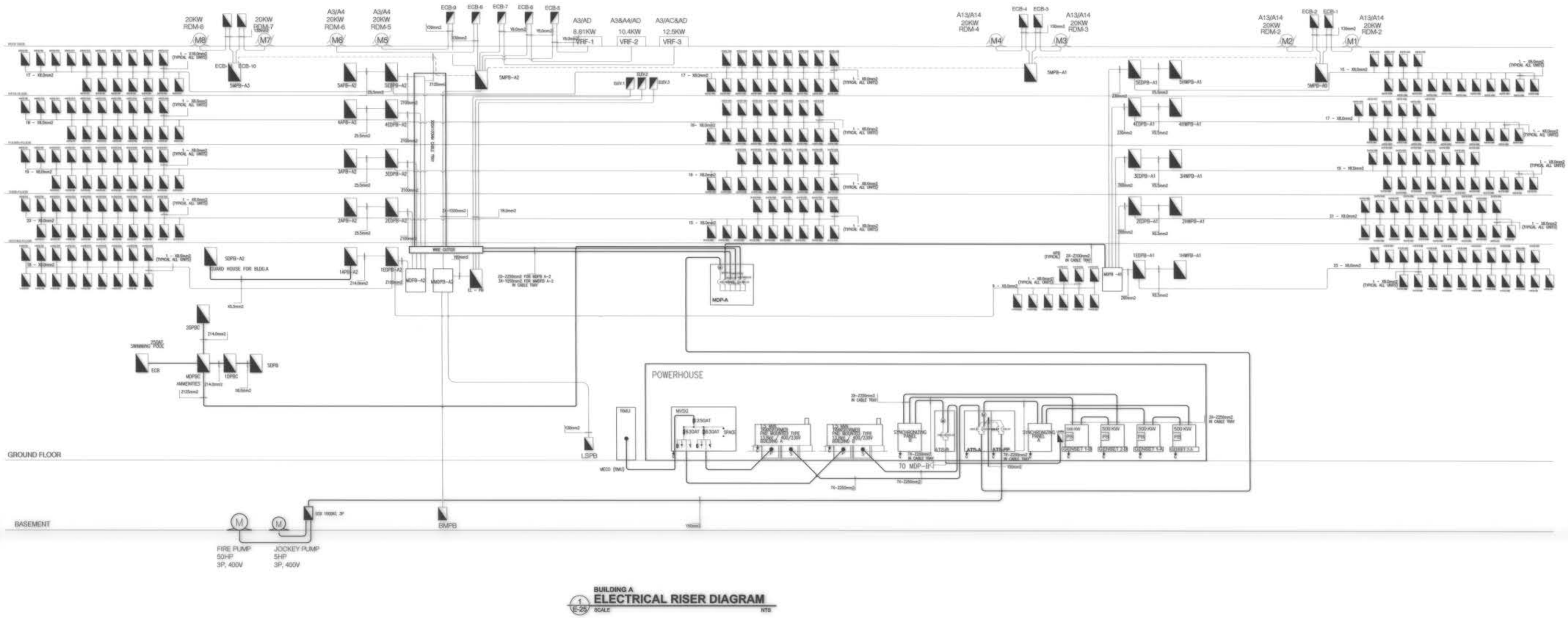
1.) RDM-1 = FRESH AIR BLOWER (M-1)
1.) RDM-2 = EXHAUST BLOWER (M-2)
1.) RDM-3 = FRESH AIR BLOWER (M-3)
1.) RDM-4 = EXHAUST BLOWER (M-4)
1.) RDM-5 = FRESH AIR BLOWER (M-5)
1.) RDM-6 = EXHAUST BLOWER (M-6)
1.) RDM-7 = FRESH AIR BLOWER (M-7)
1.) RDM-8 = FRESH AIR BLOWER (M-8)



BUILDING A
2 E-25 SCALE
BLOW UP ATS-A, ATS-FP AND MDP-A
NTS

Z3.5mm2	4 – 3.5mm2THWN + 1 – 2.0mm2THWN in 20mm PVC PIPE
Z5.5mm2	4 – 5.5mm2THWN + 1 – 3.5mm2THWN in 25mm PVC PIPE
Z8.0mm2	4 – 8.0mm2THWN + 1 – 3.5mm2THWN in 32mm PVC PIPE
Z14mm2	4 – 14mm2THWN + 1 – 5.5mm2THWN in 32mm PVC PIPE
Z22mm2	4 – 22mm2THWN + 1 – 8.0mm2THWN in 40mm PVC PIPE
Z30mm2	4 – 30mm2THWN + 1 – 14mm2THWN in 40mm PVC PIPE
Z38mm2	4 – 38mm2THWN + 1 – 14mm2THWN in 50mm PVC PIPE
Z50mm2	4 – 50mm2THWN + 1 – 14mm2THWN in 50mm PVC PIPE
Z60mm2	4 – 60mm2THWN + 1 – 22mm2THWN in 65mm PVC PIPE
Z80mm2	4 – 80mm2THWN + 1 – 22mm2THWN in 65mm PVC PIPE
Z100mm2	4 – 100mm2THWN + 1 – 22mm2THWN in 80mm PVC PIPE
Z125mm2	4 – 125mm2THWN + 1 – 30mm2THWN in 80mm PVC PIPE
Z150mm2	4 – 150mm2THWN + 1 – 30mm2THWN in 90mm PVC PIPE
Z200mm2	4 – 200mm2THWN + 1 – 30mm2THWN in 110mm PVC PIPE
Z250mm2	4 – 250mm2THWN + 1 – 30mm2THWN in 110mm PVC PIPE
Y3.5mm2	3 – 3.5mm2THWN + 1 – 2.0mm2THWN in 20mm PVC PIPE
Y5.5mm2	3 – 5.5mm2THWN + 1 – 3.5mm2THWN in 25mm PVC PIPE
Y8.0mm2	3 – 8.0mm2THWN + 1 – 3.5mm2THWN in 32mm PVC PIPE
Y13mm2	3 – 13mm2THWN + 1 – 5.5mm2THWN in 32mm PVC PIPE
Y22mm2	3 – 22mm2THWN + 1 – 8.0mm2THWN in 40mm PVC PIPE
Y30mm2	3 – 30mm2THWN + 1 – 14mm2THWN in 40mm PVC PIPE
Y38mm2	3 – 38mm2THWN + 1 – 14mm2THWN in 50mm PVC PIPE
Y50mm2	3 – 50mm2THWN + 1 – 14mm2THWN in 50mm PVC PIPE
Y60mm2	3 – 60mm2THWN + 1 – 22mm2THWN in 65mm PVC PIPE
Y80mm2	3 – 80mm2THWN + 1 – 22mm2THWN in 65mm PVC PIPE
Y100mm2	3 – 100mm2THWN + 1 – 22mm2THWN in 80mm PVC PIPE
Y125mm2	3 – 125mm2THWN + 1 – 30mm2THWN in 80mm PVC PIPE
Y150mm2	3 – 150mm2THWN + 1 – 30mm2THWN in 90mm PVC PIPE
Y200mm2	3 – 200mm2THWN + 1 – 30mm2THWN in 110mm PVC PIPE
Y250mm2	3 – 250mm2THWN + 1 – 30mm2THWN in 110mm PVC PIPE
X3.5mm2	2 – 3.5mm2THWN + 1 – 2.0mm2THWN in 20mm PVC PIPE
X5.5mm2	2 – 5.5mm2THWN + 1 – 3.5mm2THWN in 20mm PVC PIPE
X8.0mm2	2 – 8.0mm2THWN + 1 – 3.5mm2THWN in 25mm PVC PIPE
X14mm2	2 – 14mm2THWN + 1 – 5.5mm2THWN in 25mm PVC PIPE
X22mm2	2 – 22mm2THWN + 1 – 8.0mm2THWN in 32mm PVC PIPE

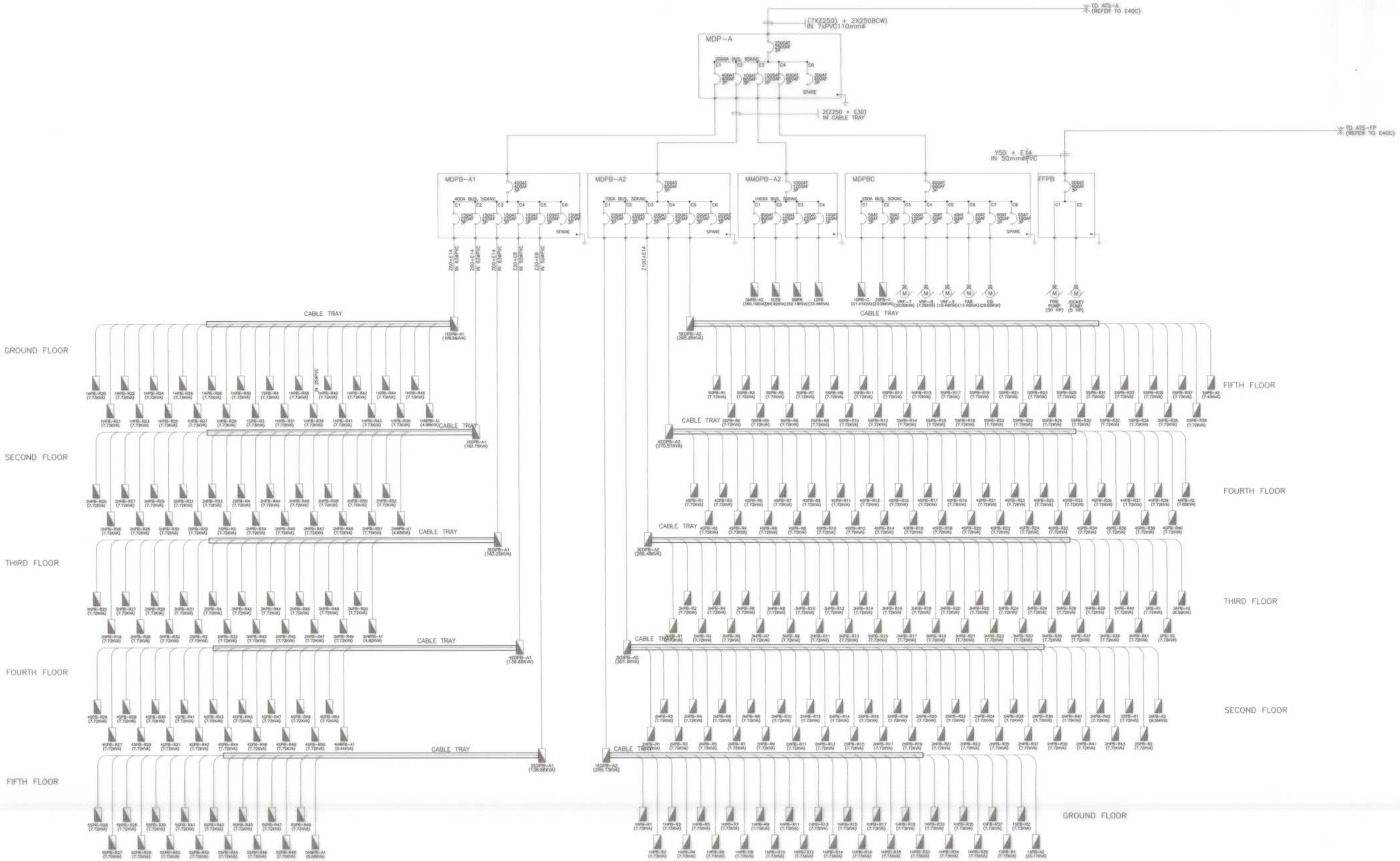
WIRE CODE



BUILDING A
1 E-25 SCALE
ELECTRICAL RISER DIAGRAM
NTS

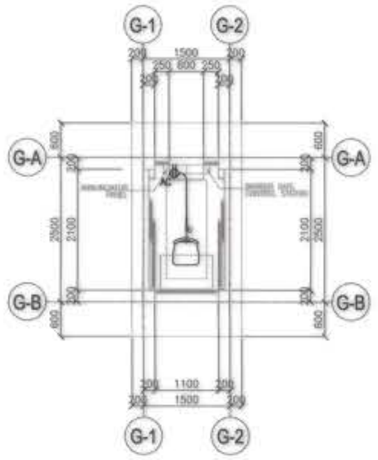
OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:
BCDA AND MTD VIVENCIO B. DIZON PRESIDENT PATRICK NICHOLAS P. DAVID PRESIDENT	FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT / OPERATION REG No.: 0022657 PTR No: 8118458 TIN No.: 116-628-274 PLACE: MANILA DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac

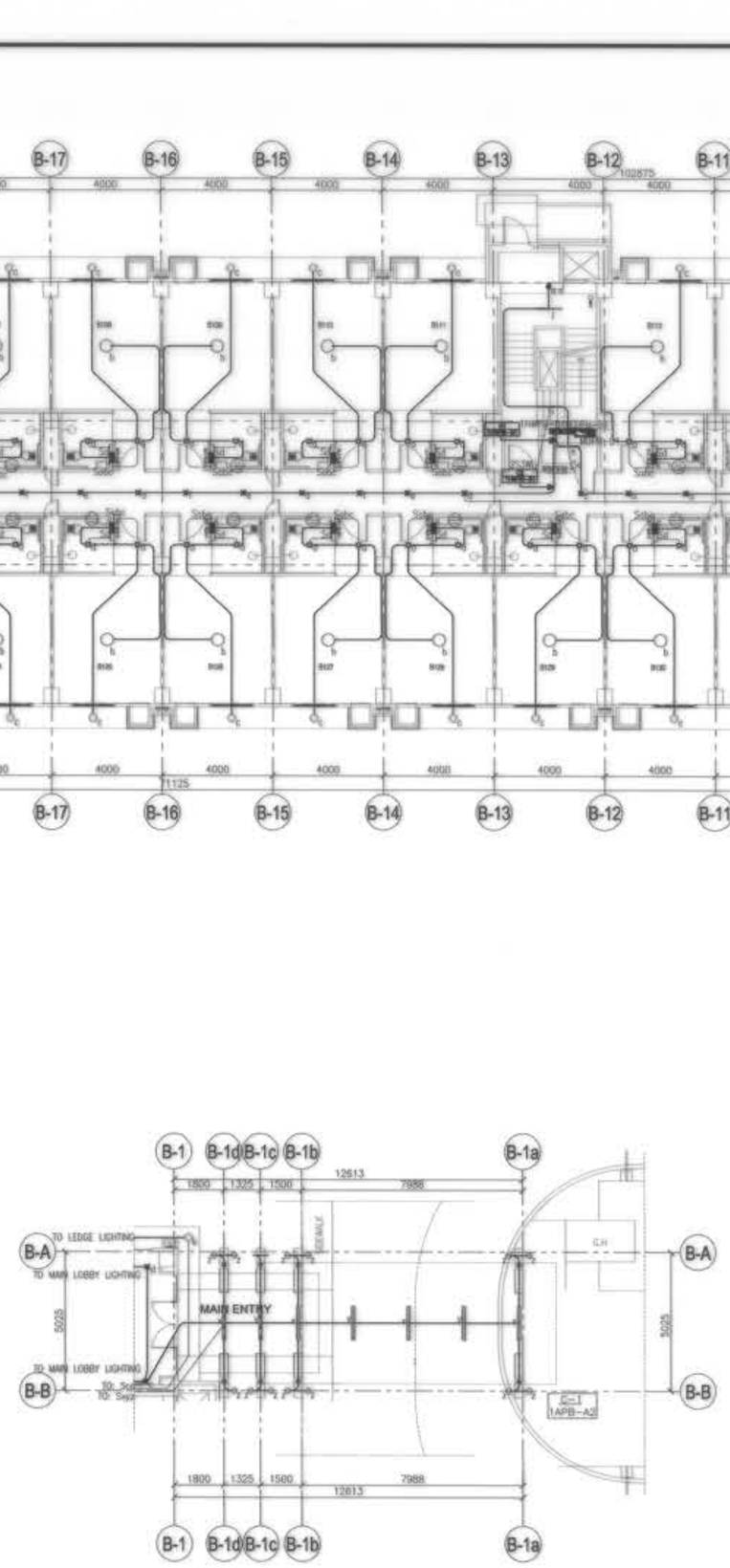
SHEET CONTENTS:	SHEET NO.
BUILDING "A"	E-25
ELECTRICAL RISER DIAGRAM	



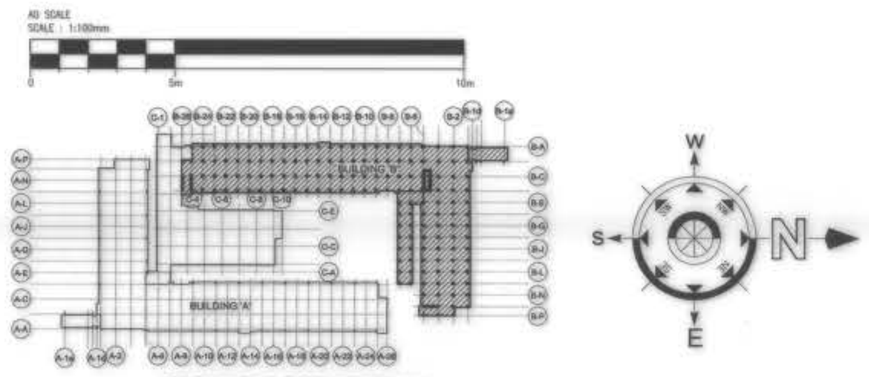
BUILDING A
1 E-26 **POWER SINGLE LINE DIAGRAM**
SCALE NTS

OWNER : NGAC PHASE I JV COMPANY BCDA / MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT AND PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT-OPERATION REG No.: 0020857 PTR No: 8116498 TIN No.: 116-426-276 PLACE: MANILA DATE: 01.30.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "A" POWER SINGLE LINE DIAGRAM	SHEET NO. E-26





BUILDING B
MAIN ENTRANCE LIGHTING LAYOUT PLAN
1 / E-24 SCALE 1" 150 M

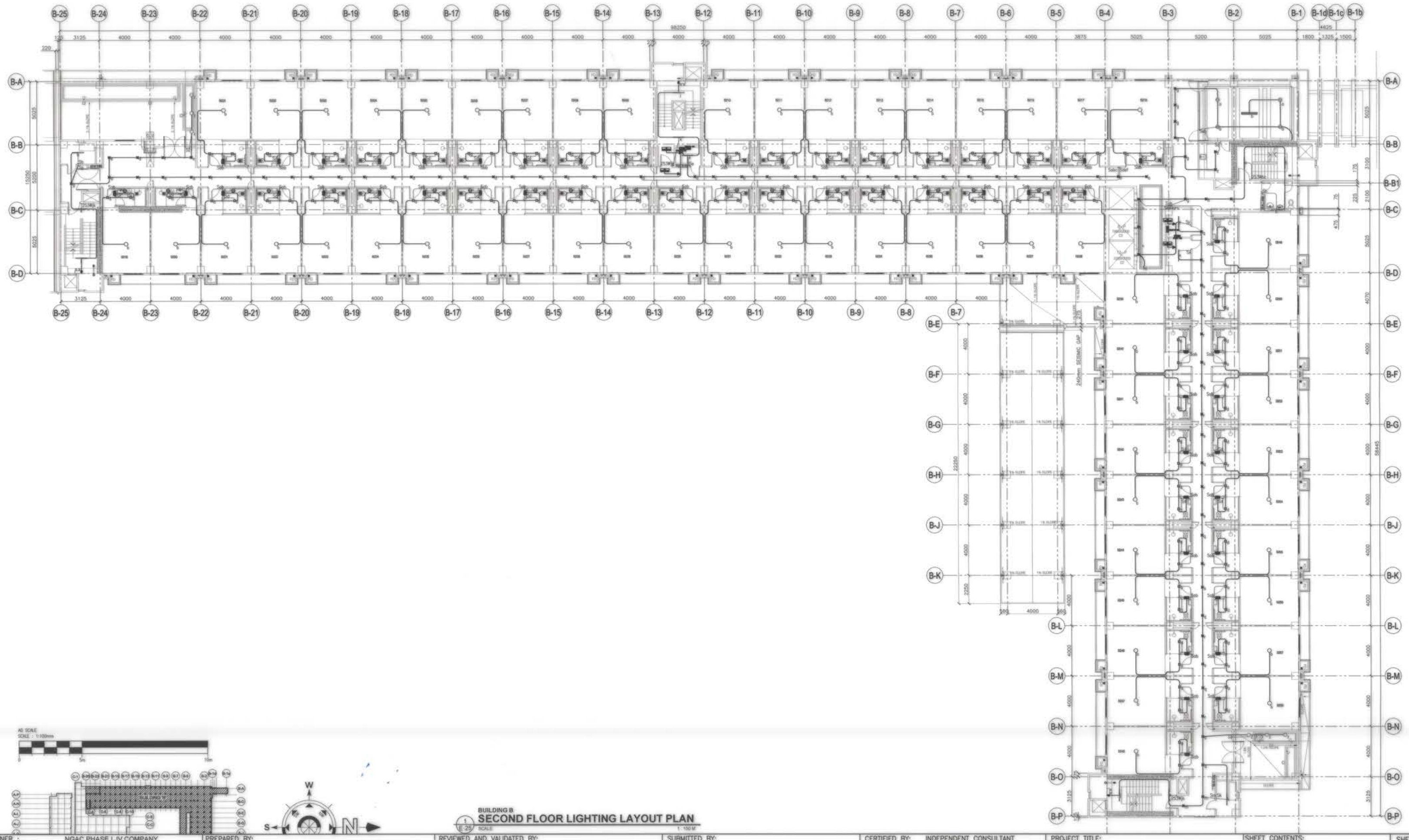


GROUND FLOOR KEYPLAN

BUILDING B
GROUND FLOOR LIGHTING LAYOUT PLAN
1 / E-24 SCALE 1" 150 M

OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA Bases Conversion and Development Authority — VIVENCIO B. DIZON, PRESIDENT — AND — MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION — MANILA - DAVAO - CEBU - ILOILO — ZOILO S. DELA CRUZ, VICE PRESIDENT - OPERATION — REG No.: 9022657 — TIN No.: 116-426-274 — DATE: 01.20.2019 — PTR No: 8118498 — PLACE: MANILA	FILIPINAS DRAVO CORPORATION — Architectural & Engineering Consultants — ALFREDO B. REVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT

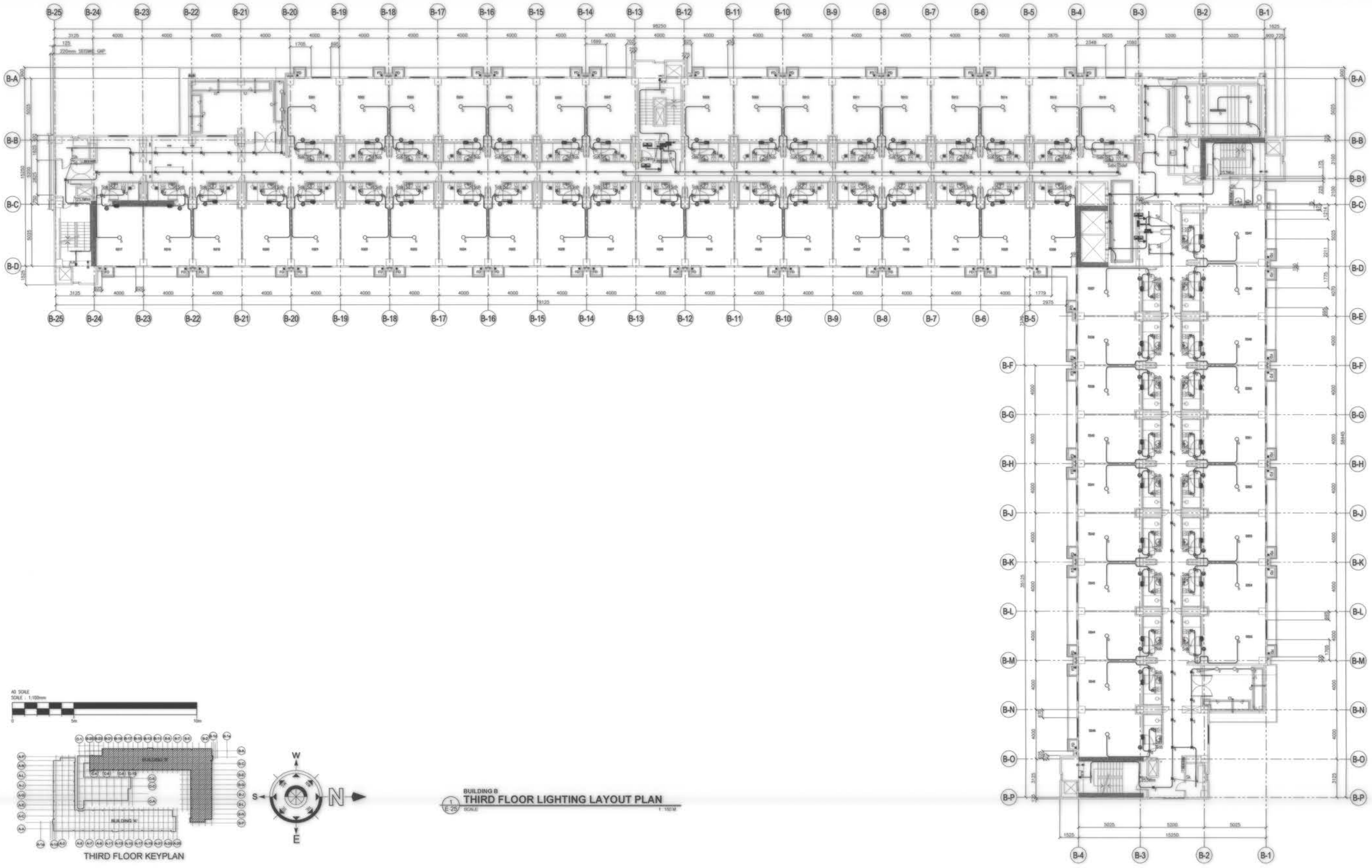
CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "B" GROUND FLOOR LIGHTING LAYOUT PLAN	E-27



BUILDING B
SECOND FLOOR LIGHTING LAYOUT PLAN
1 / E-28 SCALE 1 : 150 M

OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA — VIVENCIO B. DIZON, PRESIDENT AND MTD Clark Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022657 PTR No: 0110498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO M. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT

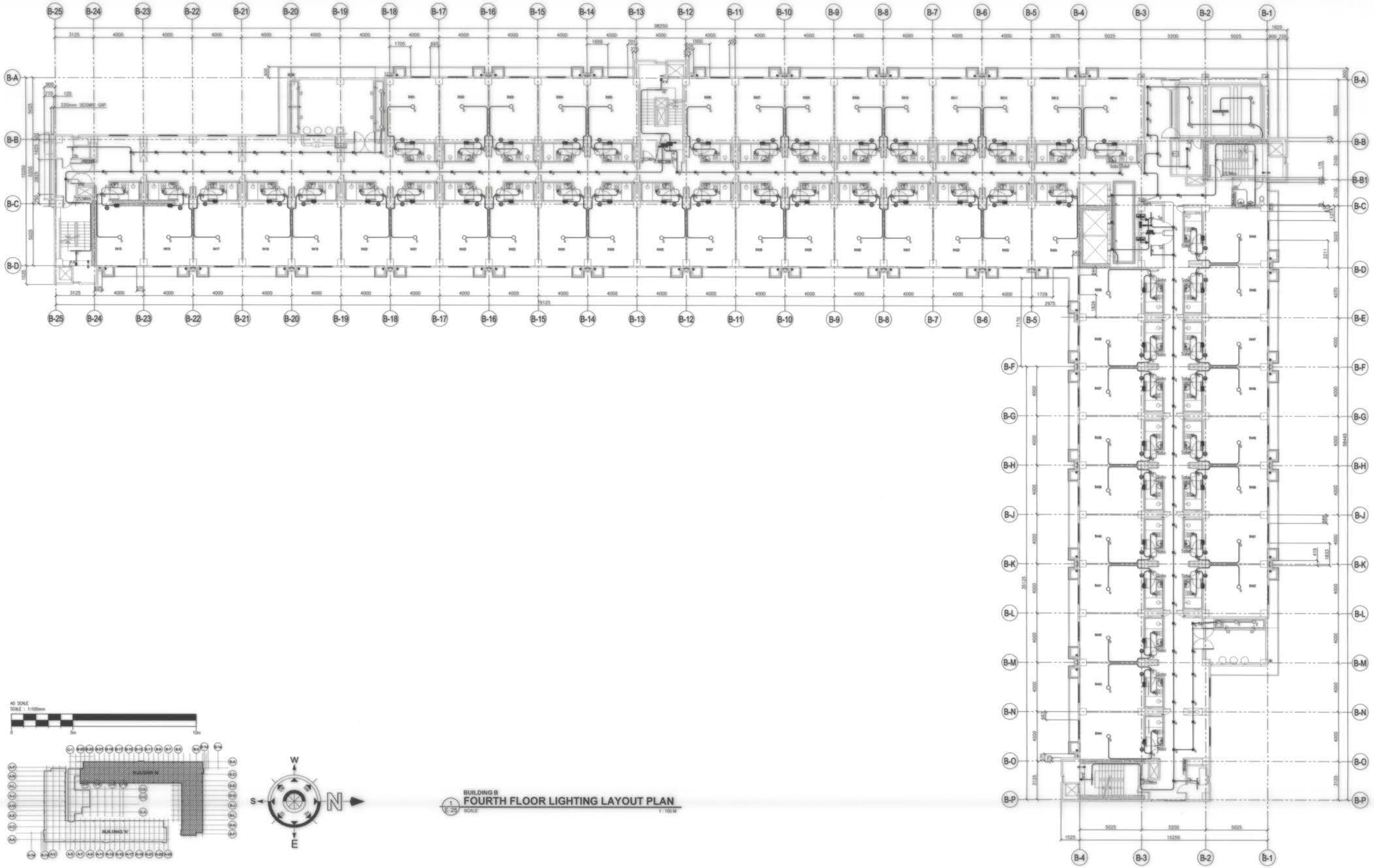
CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "B" SECOND FLOOR LIGHTING LAYOUT PLAN	E-28



THIRD FLOOR KEYPLAN

BUILDING B
1 / E 25 SCALE
THIRD FLOOR LIGHTING LAYOUT PLAN
1" = 1500 M

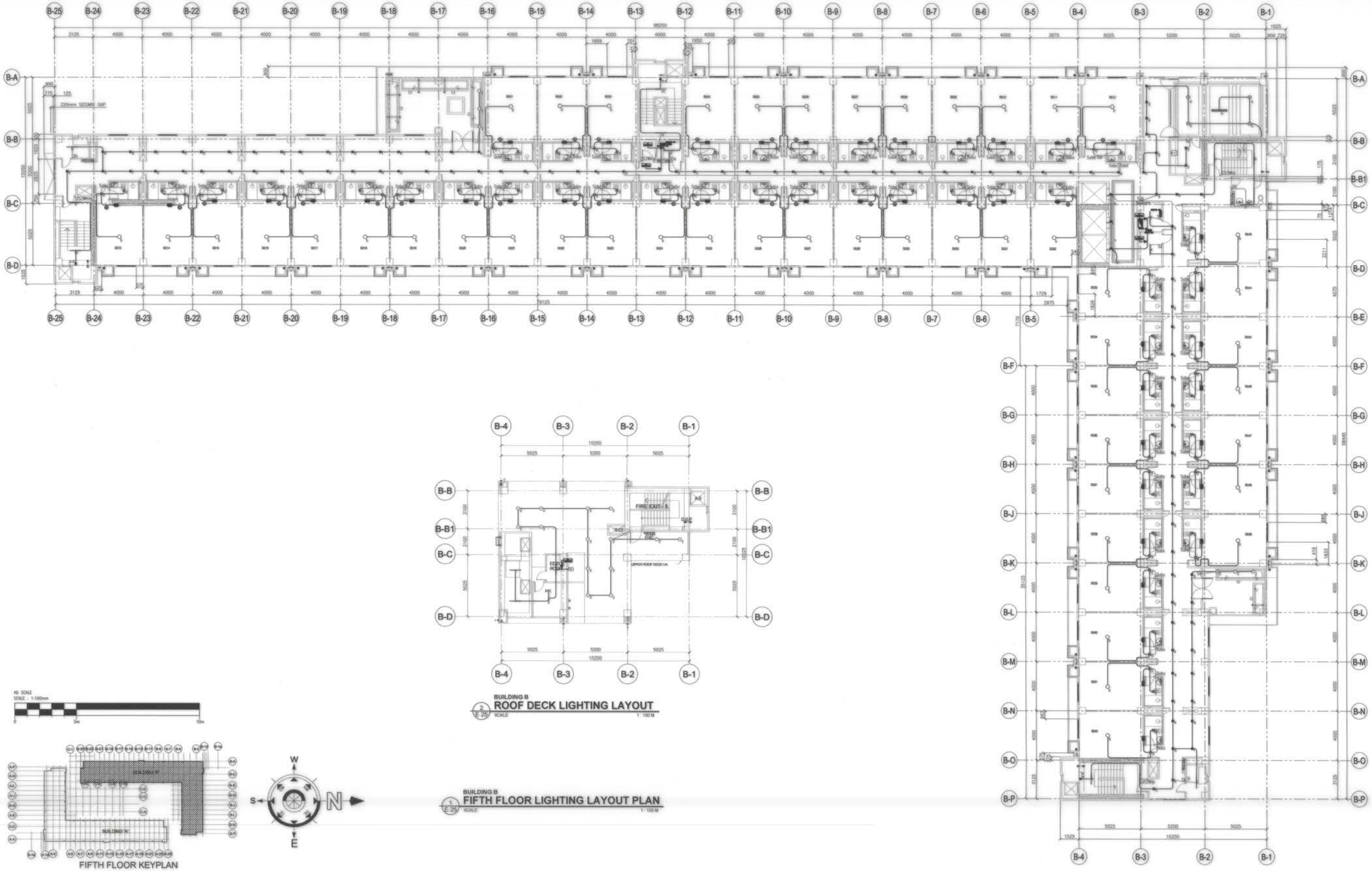
OWNER : NGAC PHASE I JV COMPANY BCDA Bases Conversion and Development Authority — AND — MTO Clark, Inc. VIVENCIO B. DIZON, PRESIDENT — PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT--OPERATION REG No.: 9922652 PTR No: 8118498 TIN No.: 116-428-274 PLACE: MINES DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" THIRD FLOOR LIGHTING LAYOUT PLAN	SHEET NO. E-29



1 E-25 BUILDING B
FOURTH FLOOR LIGHTING LAYOUT PLAN
SCALE 1:100 M

OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT
BCDA AND MTD VIVENCIO B. DIZON PRESIDENT PATRICK NICHOLAS P. DAVID PRESIDENT	FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022857 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO

PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "B" FOURTH FLOOR LIGHTING LAYOUT PLAN	E-30



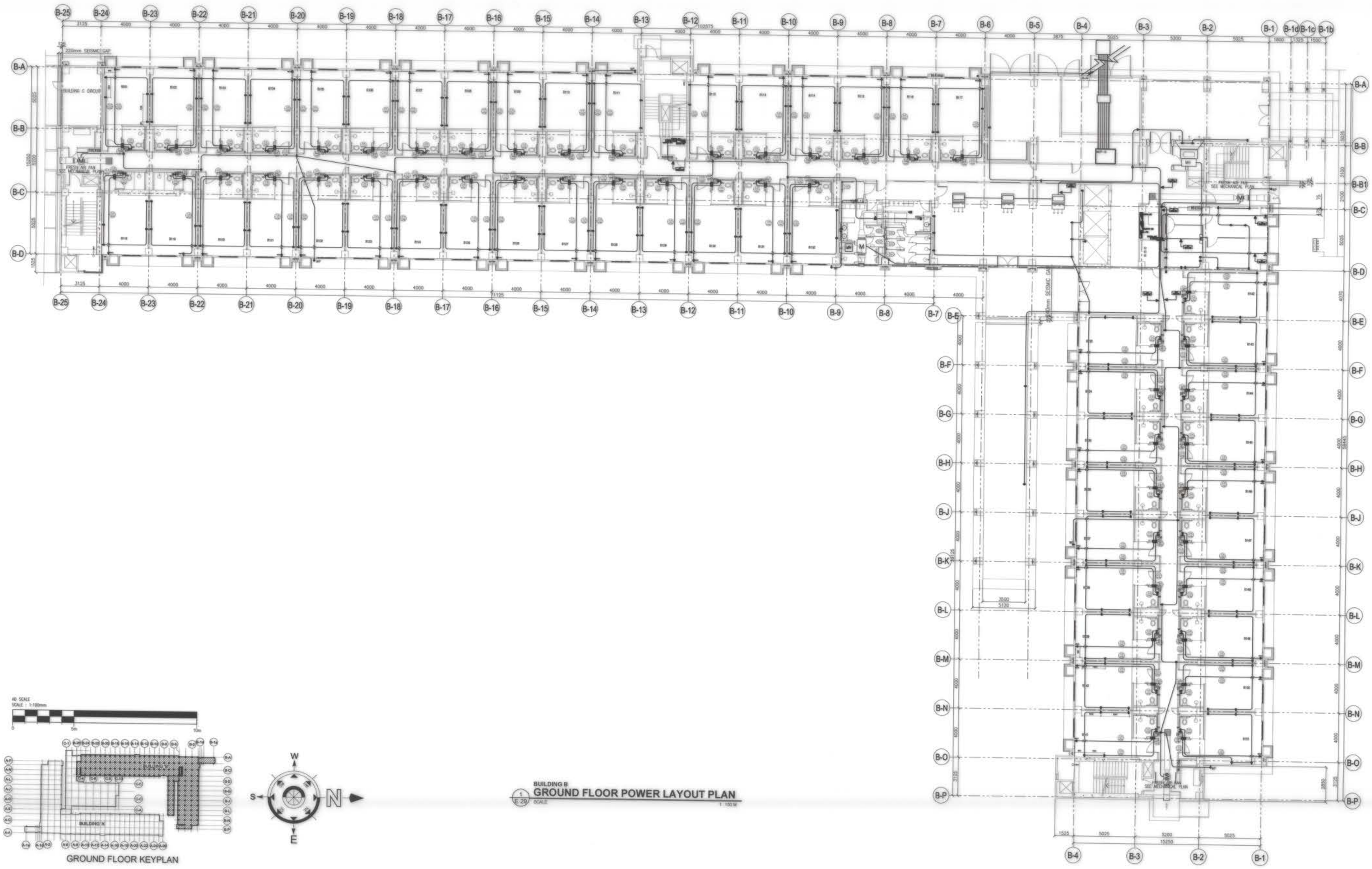
BUILDING B
2 / E-25 SCALE
ROOF DECK LIGHTING LAYOUT
1 : 150 M

A0 SCALE
SCALE 1:100mm
0 5m 10m

FIFTH FLOOR KEYPLAN

BUILDING B
1 / E-25 SCALE
FIFTH FLOOR LIGHTING LAYOUT PLAN
1 : 100 M

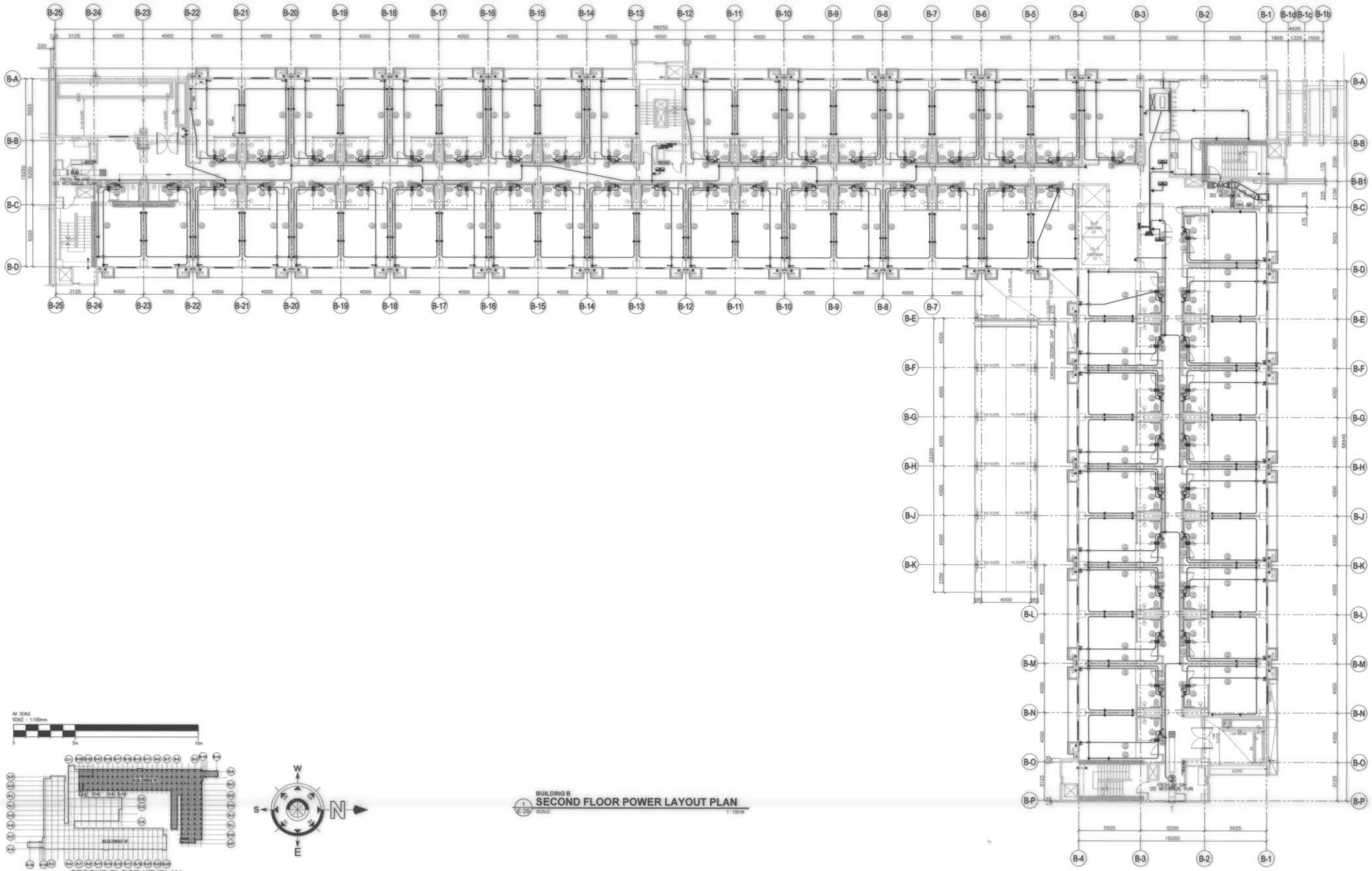
OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022657 PTR No: 0118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" FIFTH FLOOR LIGHTING LAYOUT PLAN	SHEET NO. E-31



GROUND FLOOR KEYPLAN

BUILDING B
1/E-29 SCALE
GROUND FLOOR POWER LAYOUT PLAN
1 : 150 M

OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD Clark VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0002507 PTR No: 0116498 TIN No.: 110-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" GROUND FLOOR POWER LAYOUT PLAN	SHEET NO. E-32

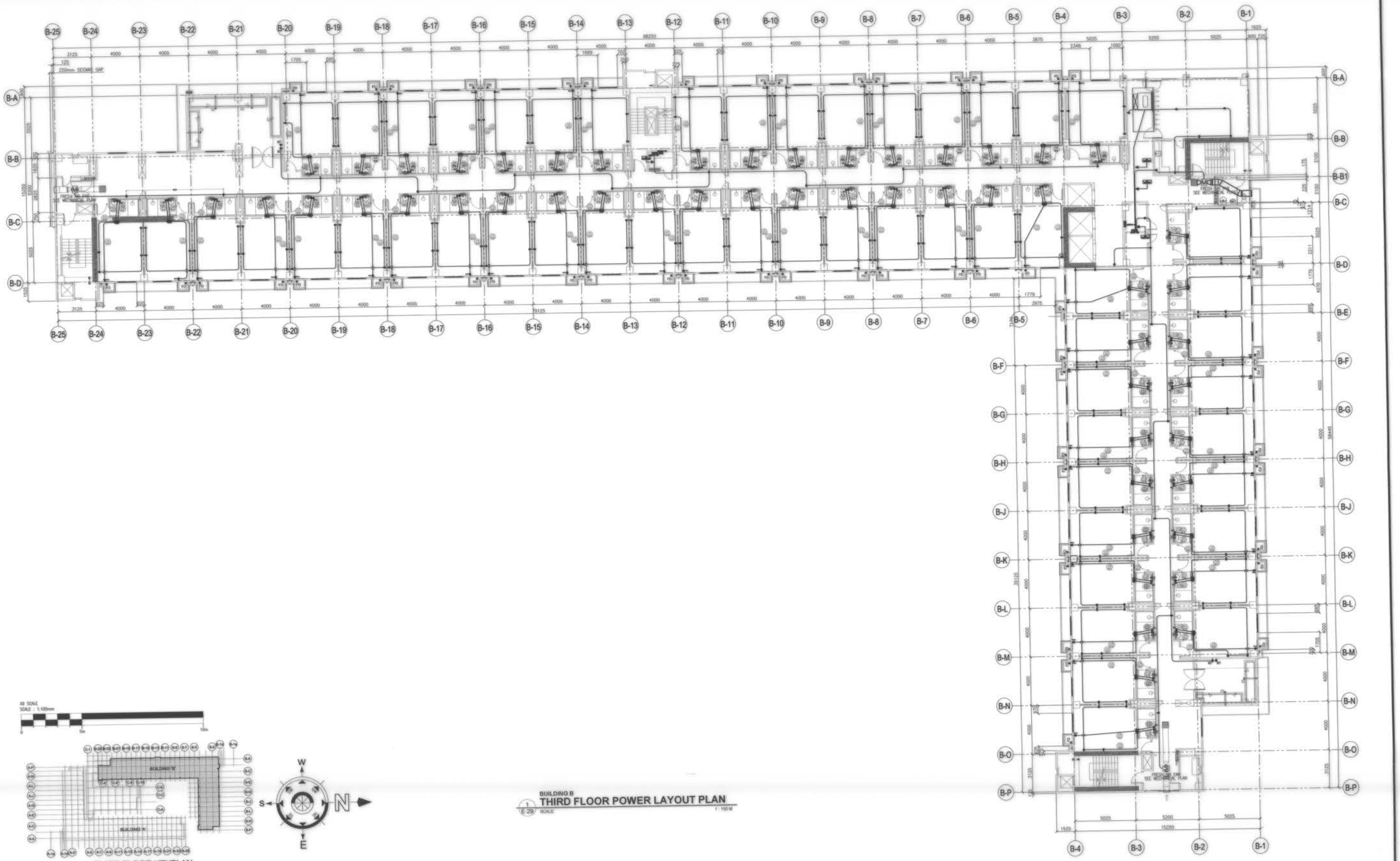


SECOND FLOOR KEYPLAN

BUILDING B
1/E-26 SCALE
SECOND FLOOR POWER LAYOUT PLAN
1 : 100 M

OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA — VIVENCIO B. DIZON, PRESIDENT AND MTD Clark — PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022657 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT

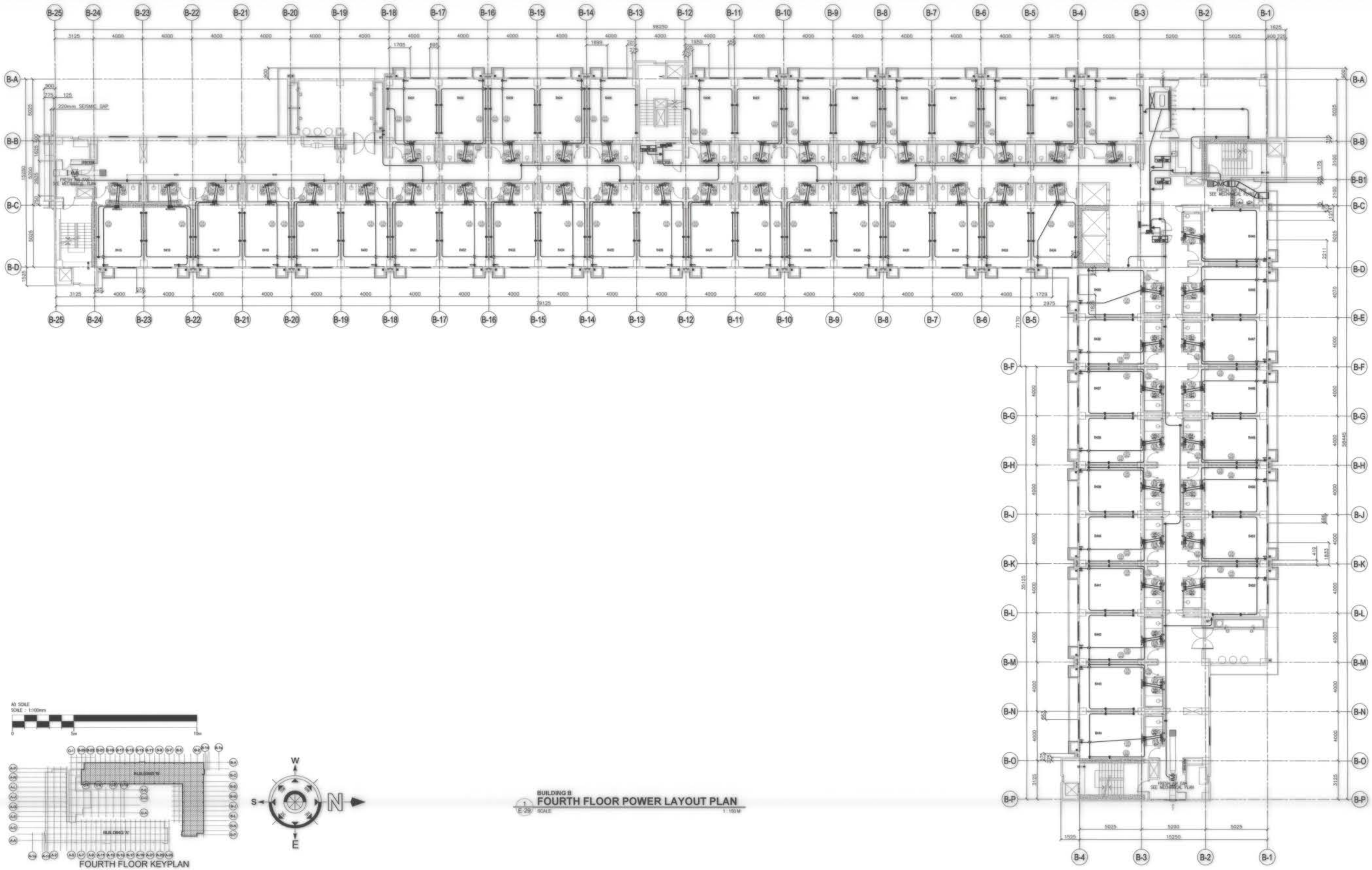
CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "B" SECOND FLOOR POWER LAYOUT PLAN	E-33



THIRD FLOOR KEYPLAN

BUILDING B
1 / E-29 SCALE
THIRD FLOOR POWER LAYOUT PLAN
1 : 150 M

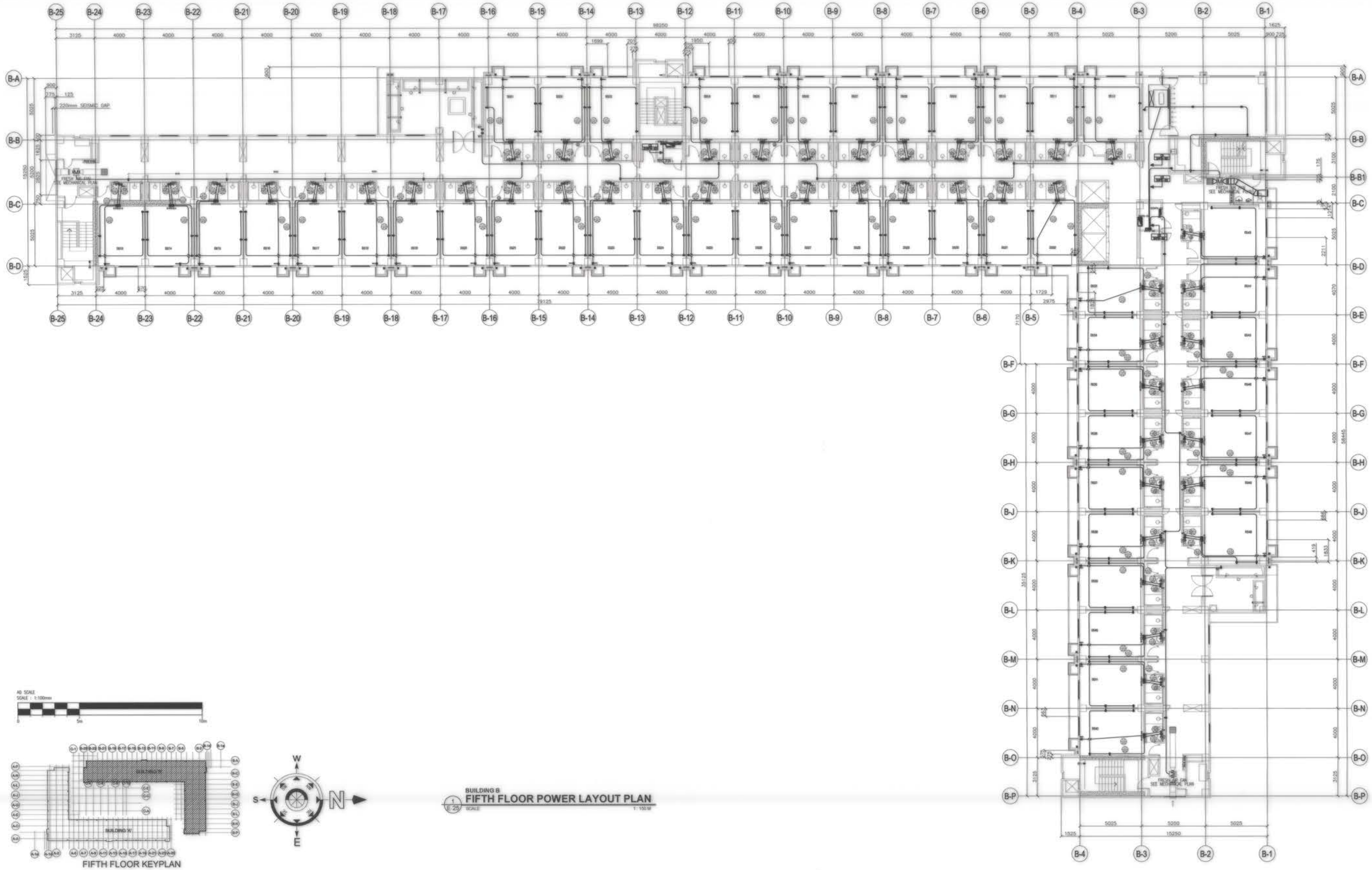
OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD Clarkinc VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION ZOILO S. DELA CRUZ VICE PRESIDENT, OPERATION REG No.: 0022857 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.30.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" THIRD FLOOR POWER LAYOUT PLAN	SHEET NO. E-34



FOURTH FLOOR KEYPLAN

BUILDING B
1 / E.29 SCALE
FOURTH FLOOR POWER LAYOUT PLAN
1 : 100 M

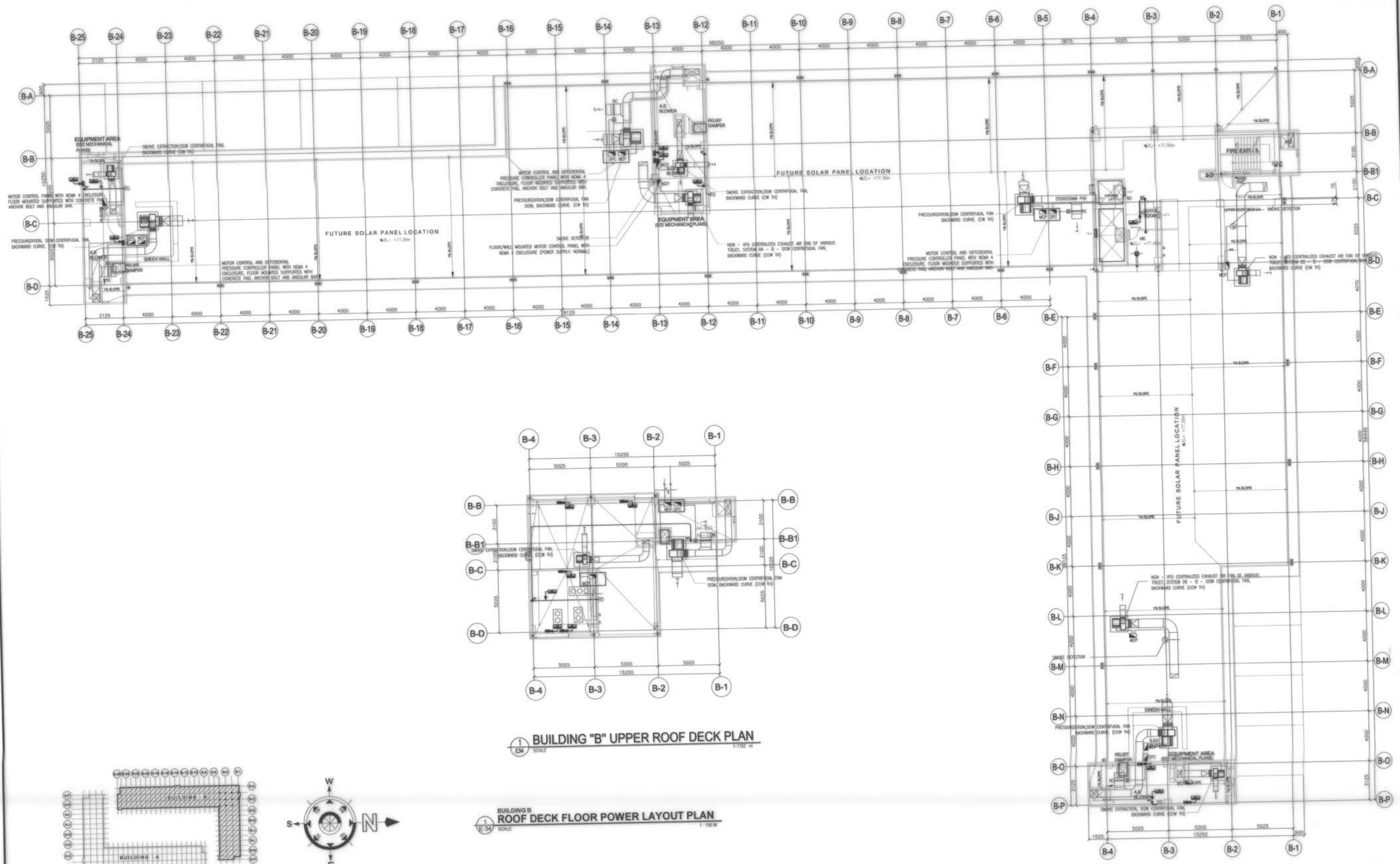
OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA – DAVAO – CEBU – ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT – OPERATION REG. No.: 0022657 PTR No: 5118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" FOURTH FLOOR POWER LAYOUT PLAN	SHEET NO. E-35
---	---	---	---	---	---	---	---



FIFTH FLOOR KEYPLAN

BUILDING B
1 E-25 FIFTH FLOOR POWER LAYOUT PLAN
SCALE 1:150 M

OWNER :	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
NGAC PHASE I JV COMPANY BCDA VIVENCIO B. DIZON PRESIDENT AND MTD Clark, Inc. PATRICK NICHOLAS P. DAVID PRESIDENT	FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022657 PTR No: 8118498 TIN No.: 118-428-274 PLACE: MANILA DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "B" FIFTH FLOOR POWER LAYOUT PLAN	E-36

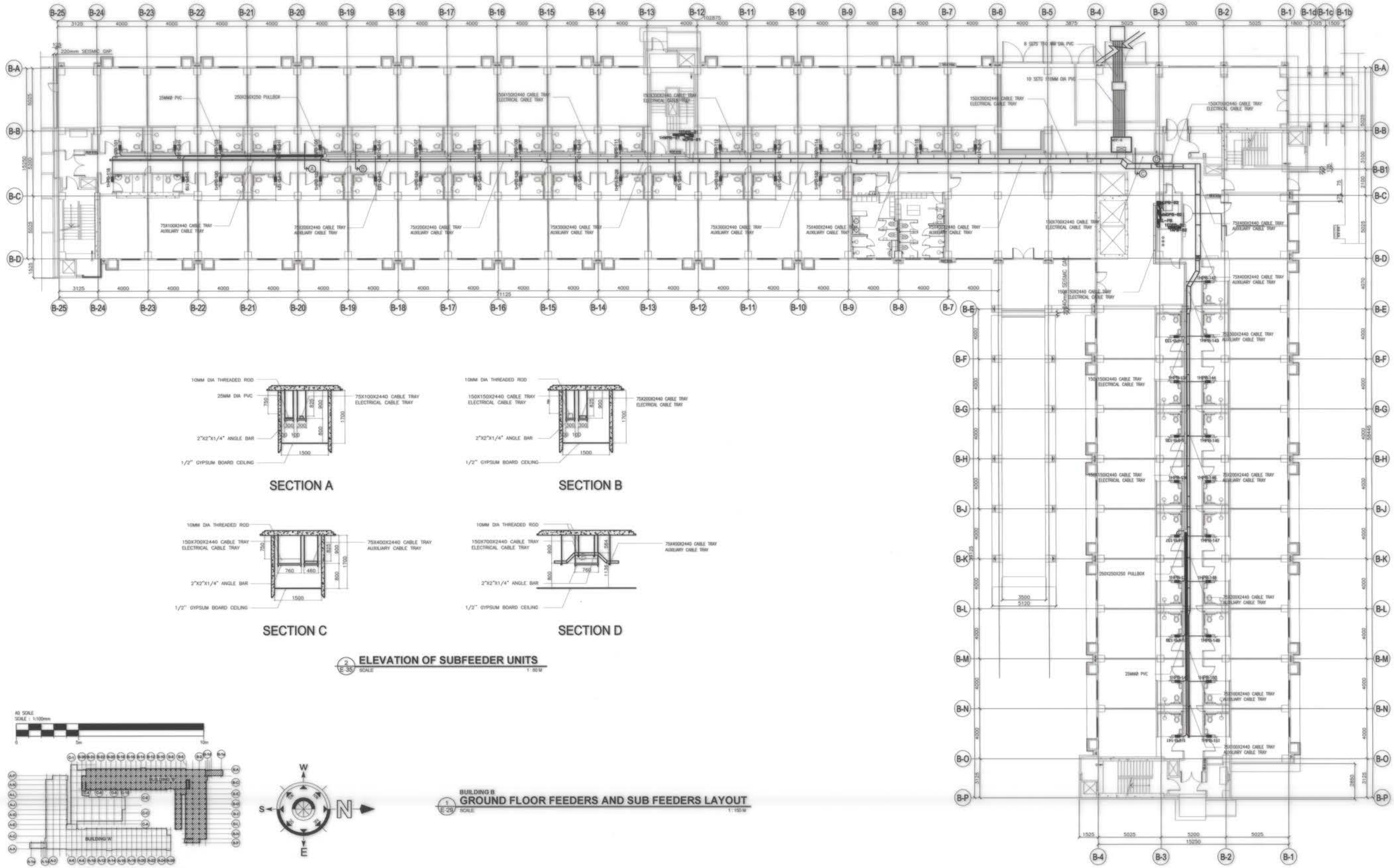


1 BUILDING "B" UPPER ROOF DECK PLAN
E34 SCALE 1:150 m

ROOF DECK KEYPLAN

BUILDING B
1 ROOF DECK FLOOR POWER LAYOUT PLAN
E 34 SCALE 1: 150 M

OWNER : NGAC PHASE I JV COMPANY AND VIVENCIO B. OZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: ZOILO B. DELA CRUZ VICE PRESIDENT - OPERATION FREY-FIL CORPORATION REG No.: 0022657 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" ROOK DECK POWER LAYOUT PLAN	SHEET NO. E-37



SECTION A

SECTION B

SECTION C

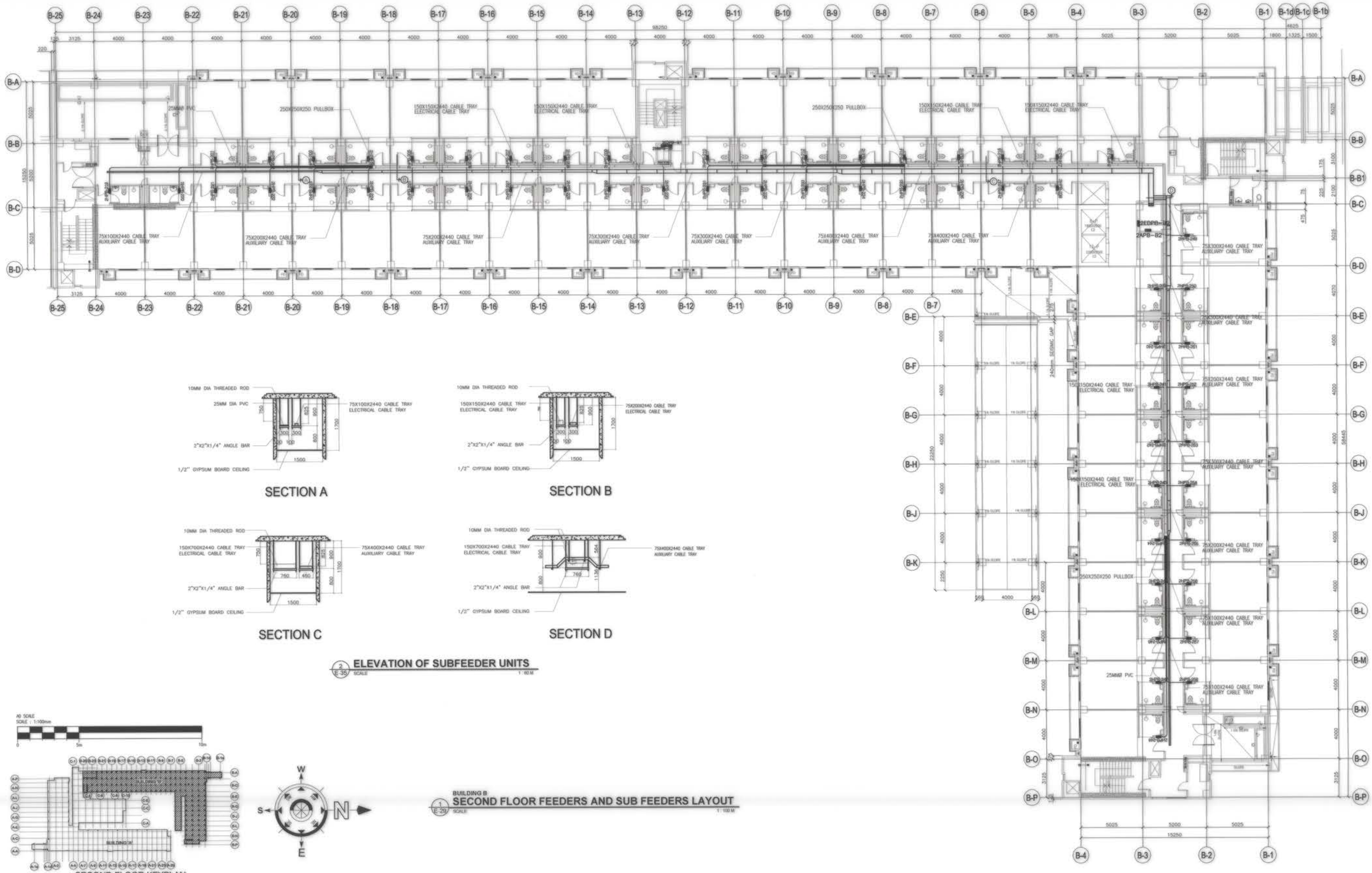
SECTION D

2 E-35 **ELEVATION OF SUBFEEDER UNITS**
SCALE 1: 60 M

GROUND FLOOR KEYPLAN

BUILDING B
1 E-29 **GROUND FLOOR FEEDERS AND SUB FEEDERS LAYOUT**
SCALE 1: 150 M

OWNER : NGAC PHASE I JV COMPANY BCDA Bases Conversion and Development Authority VIVENCIO B. DIZON PRESIDENT AND MTD Clark, Inc. PATRICK NICHOLAS P. DAVID PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0002857 PTR No: 8118498 TIN No.: 116-426-374 PLACE: MAKATI DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" GROUND FLOOR FEEDERS AND SUB FEEDERS LAYOUT PLAN	SHEET NO. E-38



SECTION A

SECTION B

SECTION C

SECTION D

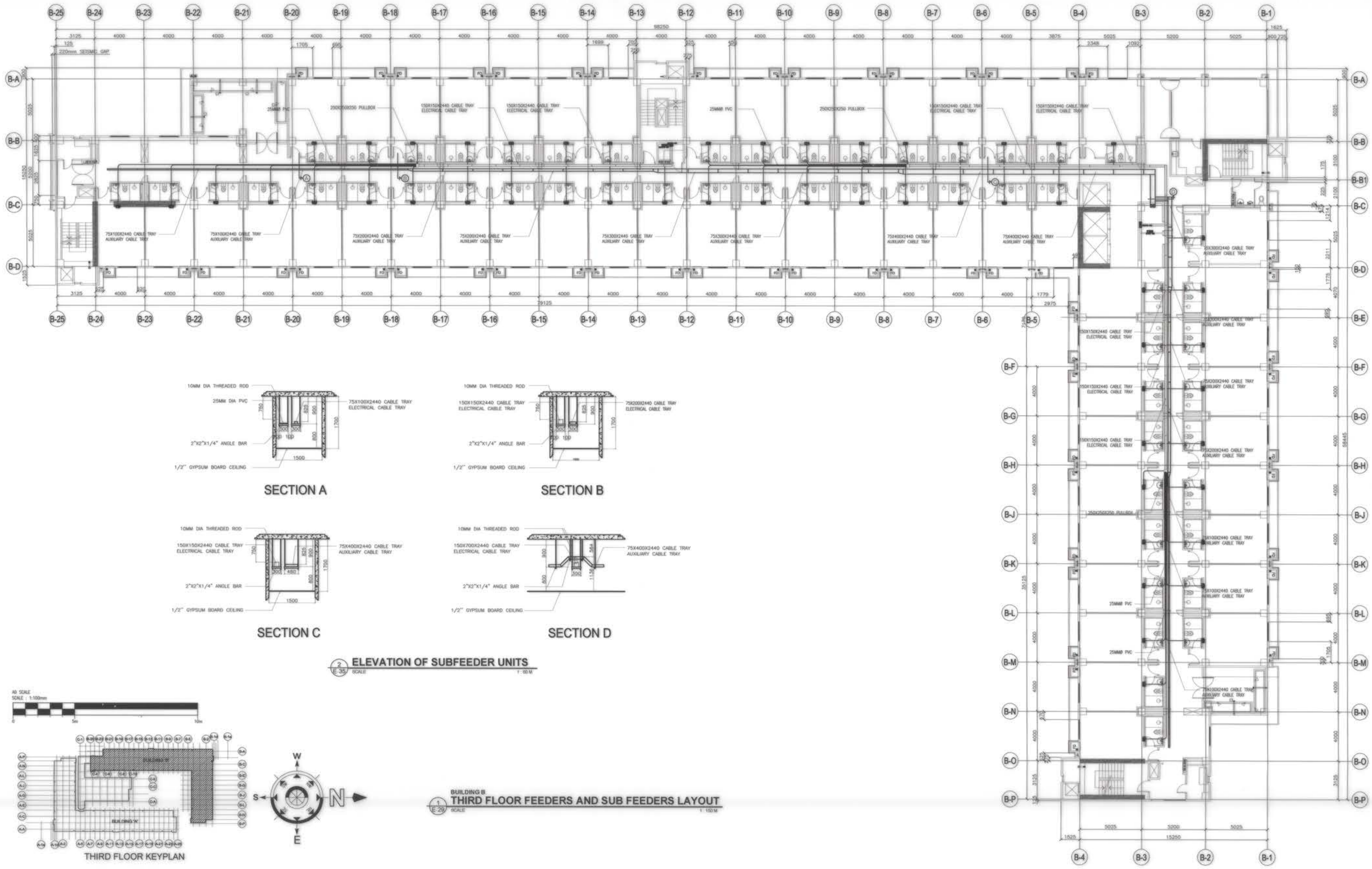
2 E-35 **ELEVATION OF SUBFEEDER UNITS**
SCALE 1 : 40 M

SECOND FLOOR KEYPLAN

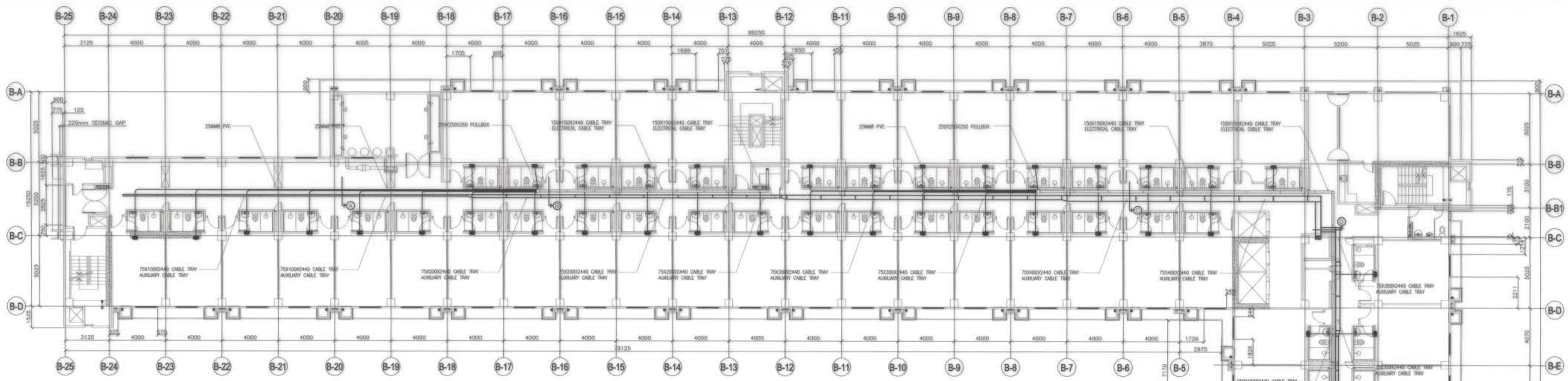
BUILDING B
1 E-29 **SECOND FLOOR FEEDERS AND SUB FEEDERS LAYOUT**
SCALE 1 : 100 M

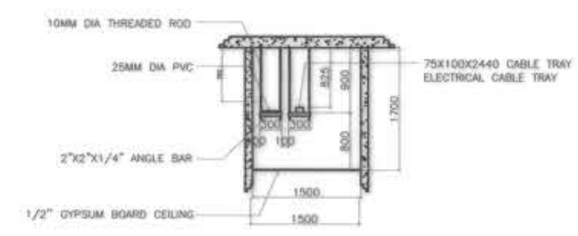
OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:
BCDA — VIVENCIO B. DIZON, PRESIDENT — AND — MTD Clark Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT	FREY-FIL CORPORATION — ZOILO S. DELA CRUZ, VICE PRESIDENT - OPERATION — REG No.: 0022057 — PTR No.: 8118498 — TIN No.: 116-426-274 — PLACE: MANILA — DATE: 01.20.2019	FILIPINAS DRAVO CORPORATION, Architectural & Engineering Consultants — ALFREDO R. AVILLA, PROJECT MANAGER	BANDAR HEBAT BUILDERS, INC. — ISAAC S. DAVID, PRESIDENT

CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
TCGI ENGINEERS — VIRGILIO A. MADRAZO, PRESIDENT/CEO	AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	BUILDING "B" SECOND FLOOR FEEDERS AND SUB FEEDERS LAYOUT PLAN	E-39

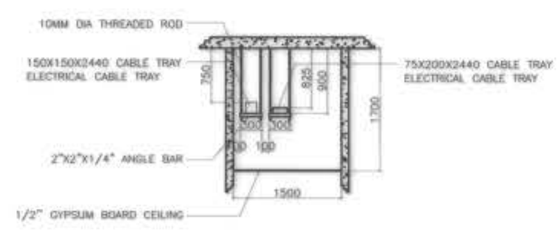


OWNER : NGAC PHASE I JV COMPANY BCDA VIVENCIO B. DIZON PRESIDENT AND MTD Clarke PATRICK NICHOLAS P. DAVID PRESIDENT	PREPARED BY: FREY-FIL CORPORATION ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022657 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" THIRD FLOOR FEEDERS AND SUB FEEDERS LAYOUT PLAN	SHEET NO. E-40

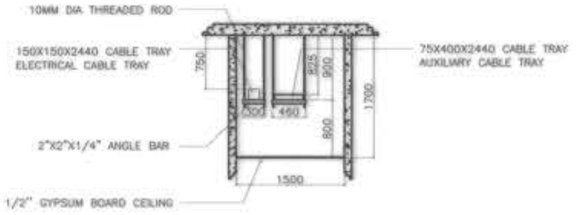




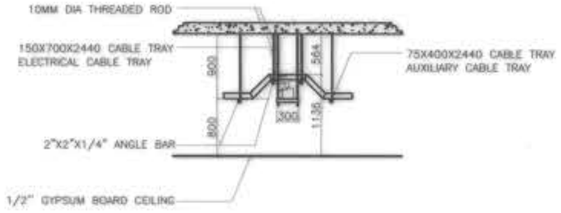
SECTION A



SECTION B

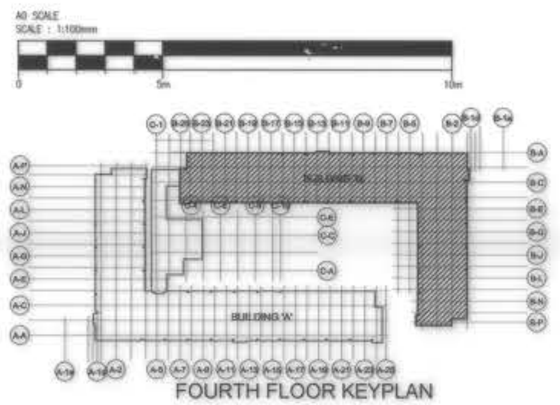


SECTION C



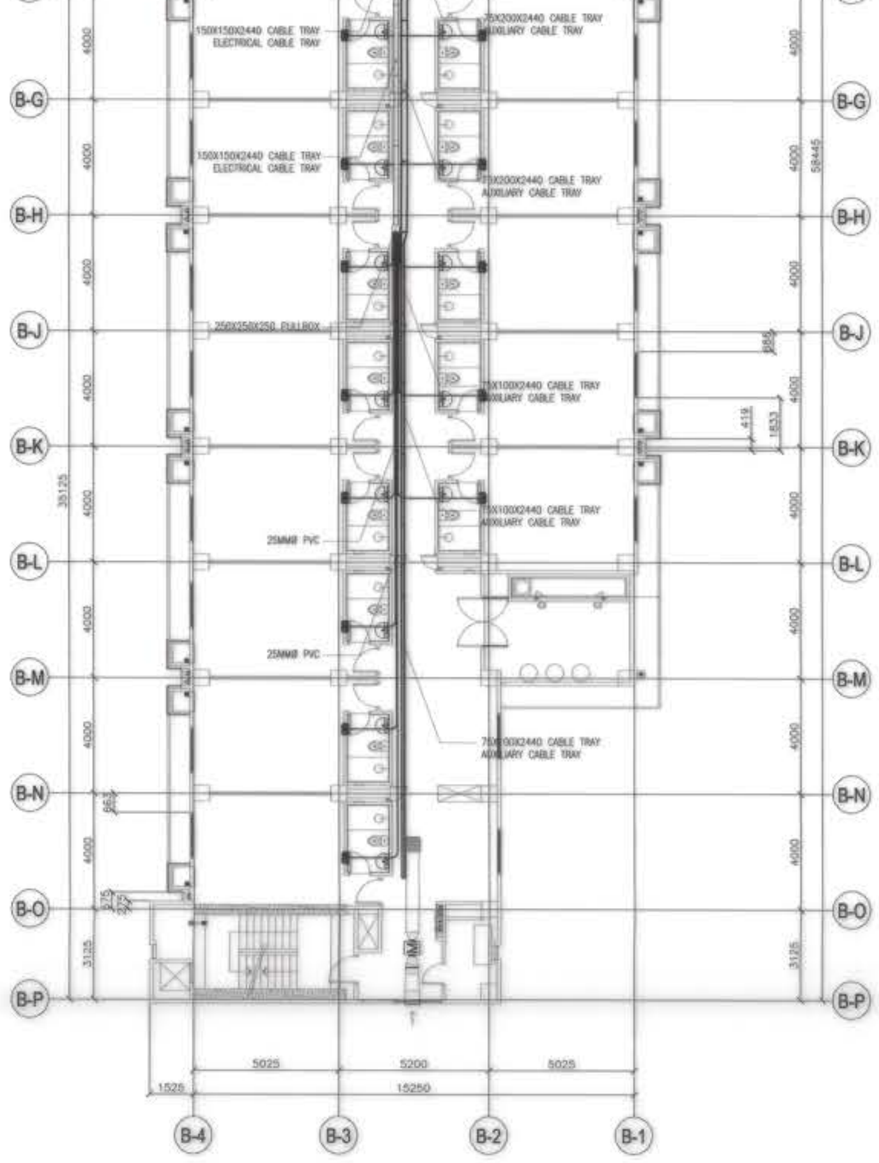
SECTION D

2 E-36 **ELEVATION OF SUBFEEDER UNITS**
SCALE 1 : 60 M

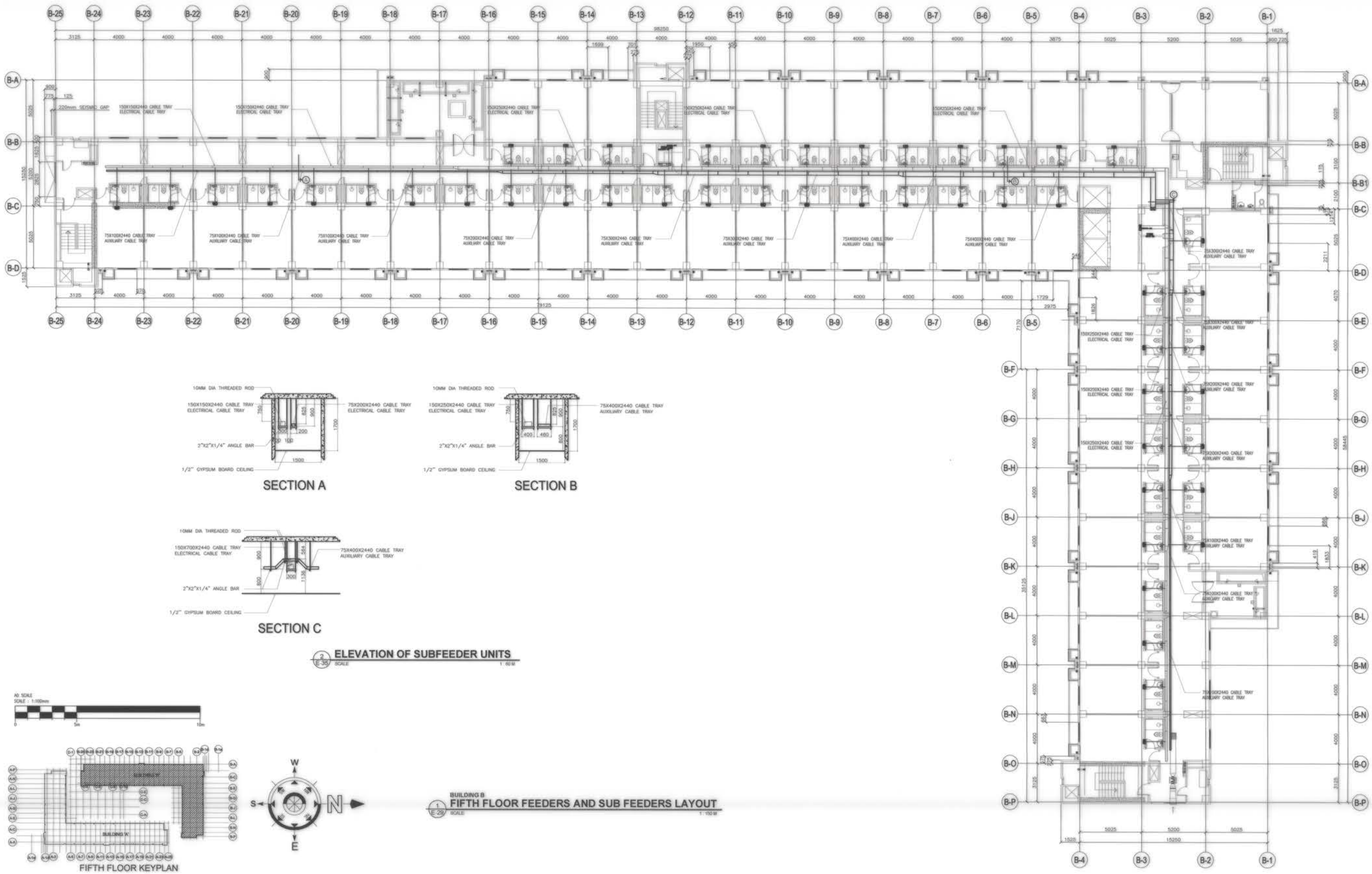


FOURTH FLOOR KEYPLAN

BUILDING B
1 E-29 **FOURTH FLOOR FEEDERS AND SUB FEEDERS LAYOUT**
SCALE 1 : 150 M



OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD Clark VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION ZOILO S. DELA CRUZ, VICE PRESIDENT - OPERATION REG No.: 0022657 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" FOURTH FLOOR FEEDERS AND SUB FEEDERS LAYOUT PLAN	SHEET NO. E-41



SECTION A

SECTION B

SECTION C

ELEVATION OF SUBFEEDER UNITS

2 / E-35 SCALE 1 : 60 M

FIFTH FLOOR KEYPLAN

BUILDING B FIFTH FLOOR FEEDERS AND SUB FEEDERS LAYOUT

1 / E-28 SCALE 1 : 150 M

OWNER : NGAC PHASE I JV COMPANY BCDA AND NTD VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION ZOILO S. DELA CRUZ VICE PRESIDENT--OPERATION REG No.: 0022657 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MMMA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" FIFTH FLOOR FEEDERS AND SUB FEEDERS LAYOUT PLAN	SHEET NO. E-42

PANEL "HPB"

HANDICAPPED UNIT PANEL BOARD IN ABS ENCLOSURE

VOLTAGE : 230V | WIRES : 2 + G | MAIN FEEDER: 2- 8.0 mm2 & 3.5 Gnd. 25mmPVC PIPE / CABLE TRAY
WIRES : 2 + G | FREQ. 60 HZ | MAIN BREAKER : 50AT, 50AF, 1P, 10 KAIC WITH MAGNETIC CONTACTOR

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
1	2X9.5W LED PINLIGHT RECESSED, 1 x 9.5W LED SURFACED MTD. AND 1x42 CEILING MOUNTED	70	0.30				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
2	5X165VA DUPLEX CONVENIENCE OUTLET	825	3.59				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
3	1X1.5HP (WACU)	1,960	8.52				1	50	30	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
4	1X3.5KW (MULTI-POINT) WATER HEATER	3,500	15.22				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
5	S P A R E		-				1	50	20	10	-	-
	TOTAL =	6,355	27.63									

TOTAL CONNECTED LOAD:
IFL = 8.52173913043478 (0.25) + 27.63
= 29.76 APPLY 80% DEMAND FACTOR
= 23.81 A

OVER CURRENT PROTECTION:
IFL= 8.52173913043478 / (1.5) + 27.63
= 40.41 A

PERCENTAGE VOLTAGE DROP COMPUTATION FOR THE MAXIMUM DISTANCE OF (SPB) PANEL BOARD TO RESPECTIVE ELECTRICAL (ROOM-1 AND ROOM-2) IN EVERY FLOOR, GROUND FLR. TO 5TH FLR ELECTRICAL ROOM. WITH THE MAXIMUM DISTANCE = 50 METERS

%Vd 23.8083478260870 IFL (10.8 RESISTIVITY OF COPPER)(50M)(3.28)(2)
= AREA IN CIRCULAR MIL OF 8mm² = 16509
= 5.11 Vd (100%) / 230
= 2.22 %Vd not more than 3%Vd

PANEL "SPB"

TYPICAL: STUDIO UNIT PANEL BOARD IN ABS ENCLOSURE

VOLTAGE :230V | WIRES : 2 + G | MAIN FEEDER: 2- 8mm2 & 3.5 Gnd. 25mmPVC PIPE / CABLE TRAY
WIRES : 2 + G | FREQ. 60 HZ | MAIN BREAKER : 50AT, 50AF, 1P, 10 KAIC WITH MAGNETIC CONTACTOR

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
1	2X9.5W LED PINLIGHT RECESSED 1X15W CEILING LAMP	34	0.15				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
2	5X165VA DUPLEX CONVENIENCE OUTLET	825	3.59				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
3	1X1.5HP (WACU)	1,960	8.52				1	50	30	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
4	1X3.5KW (MULTI-POINT) WATER HEATER	3,500	15.22				1	50	30	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
5	S P A R E						1	50	20	10	-	-
	TOTAL =	6,319	27.47									

TOTAL CONNECTED LOAD:
IFL = 8.52173913043478 (0.25) + 27.47
= 29.60 APPLY 80% DEMAND FACTOR
= 23.68 A

OVER CURRENT PROTECTION:
IFL= 8.52173913043478 / (1.5) + 27.47
= 40.25 A

PERCENTAGE VOLTAGE DROP COMPUTATION FOR THE MAXIMUM DISTANCE OF (SPB) PANEL BOARD TO RESPECTIVE ELECTRICAL (ROOM-1 AND ROOM-2) IN EVERY FLOOR, GROUND FLR. TO 5TH FLR ELECTRICAL ROOM. WITH THE MAXIMUM DISTANCE = 50 METERS

%Vd 23.6803478260870 IFL (10.8 RESISTIVITY OF COPPER)(50M)(3.28)(2)
= AREA IN CIRCULAR MIL OF 8mm² = 16509
= 5.09 Vd (100%) / 230
= 2.21 %Vd not more than 3%Vd

PANEL "1EDPB-B1"

GROUND FLOOR ELECTRICAL ROOM-1 BLDG. B

EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE : 400/230V | WIRES : 4 + G | MAIN FEEDER: 4 - 60 mm2 & 14 Gnd. 63mm PVC PIPE / CABLE TRAY
PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 150AT, 225AF, 3P + N, 18 KAIC, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	(1HPB-B101) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C2	(1HPB-B102) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C3	(1HPB-B103) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C4	(1HPB-B104) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C5	(1HPB-B105) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C6	(1HPB-B123) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C7	(1HPB-B107) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C8	(1HPB-B108) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C9	(1HPB-B109) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C10	(1HPB-B110) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C11	(1HPB-B111) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C12	(1SPB-B118) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C13	(1SPB-B119) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C14	(1HPB-B120) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C15	(1HPB-B121) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C16	(1HPB-B122) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C17	(1HPB-B106) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C18	(1HPB-B124) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C19	(1HPB-B125) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C20	(1HPB-B126) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C21	(1HPB-B127) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C22	(1HPB-B128) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C23	(1HPB-B129) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
	IDF	7,000			30.43		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C24	(1HWPB-1) PANEL BOARD	3,900	16.95				1	50	30	10	2-5.5mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C26	S P A R E						1	50	50	10	-	-
C27	S P A R E						1	50	20	10	-	-
C28	S P A R E						1	50	50	10	-	-
	TOTAL =	144,355.56	182.73	221.04	223.84							

TOTAL CONNECTED LOAD:
IFL = 10 (0.25) + 223.84
= 226.34 APPLY 35% DEMAND FACTOR *(NDF per Table 2.20.4.5 PEC)*
= 79.22 A

PANEL "1EDPB-B2"

GROUND FLOOR ELECTRICAL ROOM-2 BLDG. B

EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE : 400/230V | WIRES : 4 + G | MAIN FEEDER: 4 - 100 mm2 & 14 Gnd. 75mm PVC pipe / CABLE TRAY
PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 200AT, 225AF, 3P + N, 18 KAIC, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	1MPB - B2 PANEL BOARD	21,616	98.67	10.03	67.16		3	100	60	10	4-14mm² THHN WIRE 1-8.0mm² TW GRD. WIRE (GREEN)	40mm Ø PVC PIPE
C2	(1HPB-B113) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C3	(1HPB-B112) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C4	(1HPB-B114) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C5	(1HPB-B115) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C6	(1HPB-B117) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C7	(1HPB-B116) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C8	(1HPB-B131) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C9	(1HPB-B130) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C10	(1HPB-B133) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C11	(1HPB-B132) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C12	(1HPB-B135) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C14	(1HPB-B137) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C13	(1HPB-B134) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C15	(1HPB-B138) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C16	(1HPB-B139) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C17	(1HPB-B136) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C18	(1HPB-B141) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C19	(1HPB-B140) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C20	(1HPB-B143) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C21	(1HPB-B142) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C22	(1HPB-B145) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C23	(1HPB-B144) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C24	(1HPB-B147) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C25	(1HPB-B146) PANEL BOARD	6,355			27.63		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C26	(1HPB6149) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C27	(1HPB-B148) PANEL BOARD	6,355	27.63				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C28	(1HPB-B151) PANEL BOARD	6,355		27.63			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C29	(1HPB-150) PANEL BOARD	6,355		27.63			1	50	30	10	2-5.5mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C30	IDF	7,000			30.43		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C31	IDF	7,000	30.43				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C32	SDPB-B2	2677		11.64			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
	TOTAL =	169,198	251.47	260.31	251.47							

TOTAL CONNECTED LOAD:
IFL = 10 (0.25) + 260.31
= 262.81 APPLY 33% DEMAND FACTOR *(NDF per Table 2.20.4.5 PEC)*
= 86.73 A

PANEL "1HWPB-B1"

GROUND FLOOR ELECTRICAL ROOM-1 BLDG. B

HALLWAY PANEL BOARD

VOLTAGE : 230V | WIRES : 2 + G | MAIN FEEDER: 2- 5.5mm2 & 3.5 Gnd. 20 mmPVC pipe
PHASE : 1 P | FREQ. 60 HZ | MAIN BREAKER : 30AT, 50AF, 1P, 10 KAIC

NO	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
1	63 X 9.5W LED LIGHT	599	2.60				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
2	48 X 9.5 W LED LIGHT	456	1.98				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
3	FAF-GF-B1	700	3.04				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
4	13 DUPLEX CONVENIENCE OUTLET	2,145	9.33				1	50	20	10	-	-
	TOTAL =	3,900	16.95									

TOTAL CONNECTED LOAD:
IFL = 16.95 APPLY 80% DEMAND FACTOR
= 13.56 A

PANEL "1APB-B2"

GROUND FLOOR ELECTRICAL ROOM-2 BLDG. B

ADMINISTRATION PANEL BOARD

VOLTAGE : 400/230V | WIRES : 4 + G | MAIN FEEDER: 4- 14 mm2 & 8.0 GROUND #4 40 mm PVC PIPE / CABLE TRAY
PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 60AT, 100AF, 3P + N, 10 KAIC

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
1	75 X 9.5w Led Light	713	3.16				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
2	56 X 9.5w Led Light	532	2.31				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
3	S P A R E						1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
4	S P A R E						1	50	20	10		
5	44 X 9.5w Led Light	396			1.72		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
6	26 X 9.5w Led Light	247			1.07		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
7	FAF-GF-B2	550	2.17				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
8	1.5 HP WINDOW TYPE ACCU	2,300	10.00				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
9	Exhaust Fan	748		3.24			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
10	15 X 165 VA DUPLEX CONVENIENCE OUTLET			-			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
11	5 X 165 VA DUPLEX CONVENIENCE OUTLET	247			1.07		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
12	1.5 HP WINDOW TYPE ACCU	13,975	60.76		60.76		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
13	6 X 165 VA DUPLEX CONVENIENCE OUTLET	980	4.26				1	50	30	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
14	ELEVATOR POWER	980		4.26			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
15	1X 400 W FAN COIL, 2930 W FAN COIL	581		2.53			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
16	S P A R E				-		1	50	30	10		
17	1X 400 W FAN COIL, 2930 W FAN COIL	581			3.53		1	50	30	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
18	6 X 165 VA DUPLEX CONVENIENCE OUTLET	980	4.26				1	50	30	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
	TOTAL =	21,616	86.67	10.03	67.16							

TOTAL CONNECTED LOAD:
IFL = 10 (25%) + 86.67
= 89.37 APPLY 80% DEMAND FACTOR
= 71.50 A

BUILDING B

1 / E-43 LOAD SCHEDULE 1

SCALE NTS

PANEL "SDPB-B2"

GROUND FLOOR LEVEL- SITE DEVELOPMENT/GUARD HOUSE BLDG-A

SITE DEVELOPMENT PLAN PANEL BOARD

VOLTAGE : 230 | WIRES : 2 + G | MAIN FEEDER: 2-5.5mm2 & 5.5 Gnd. 20 mmPVC pipe
PHASE : 1 P | FREQ. 60 HZ | MAIN BREAKER : 60AT, 50AF, 1P + N, 10 KAIC MCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	SITE DEVT LIGHTING	1,569	6.82				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C2	GATE BARRIER	500	2.17				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C3	GATE BARRIER	500	2.17				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
C4	1X 12W LED LIGHT = 1X165VA CONVENIENCE OUTLET	177	0.77				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
	TOTAL =	2,677	11.64									

TOTAL CONNECTED LOAD:
IFL = 10.87 APPLY 60% DEMAND FACTOR
= 6.70 A

PANEL "2EDPB-B1"

SECOND FLOOR ELECTRICAL ROOM-1 BLDG. B

EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE : 400/230V | WIRES : 4 + G | MAIN FEEDER: 4 - 60 mm2 & 14 Gnd. 63mm PVC PIPE / CABLE TRAY
PHASE : 3 P | FREQ. 60 HZ | MAIN BREAKER : 150AT, 225AF, 3P + N, 18 KAIC, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	(2HPB-B201) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C2	(2HPB-B202) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C3	(2HPB-B203) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C4	(2HPB-B204) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C5	(2HPB-B205) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C6	(2HPB-B206) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C7	(2HPB-B207) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C8	(2HPB-B208) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C9	(2HPB-B209) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C10	(2SPB-B210) PANEL BOARD	6,319		27.47			1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C11	(2SPB-B220) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C12	(2HPB-B221) PANEL BOARD	6,319			27.47		1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C13	(2HPB-B222) PANEL BOARD	6,319	27.47				1	50	50	10	2-8.0mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE

PANEL "2HWPB-S1"
SECOND FLOOR ELECTRICAL ROOM-1 BLDG. B
HALLWAY PANEL BOARD

VOLTAGE: 230 | WIRES: 2 + G | MAIN FEEDER: 2- 5.5mm2 & 5.5 Grd. 32 mmPVC pipe
Ø: 1 | FREQ: 60 HZ | MAIN BREAKER: 30AT, 30AF, 1P + N, 10 KAIC
PHASE: 1 P

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE				CKT. BREAKER				WIRE & GND. (rev 2)	CONDUIT MM DIA.
			AN	BN	CN	3e	P	A.F	A.T	KAIC	THWN/THWN	
1	55 x 10W Led Light	672	3.50				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
2	DUPLEX CONV. OUTLET	2,160	9.00				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
3	FAP-2F-B1	696	2.17				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
4	S P A R E						1	60	20	10	-	-
	TOTAL =	3,217	14.42									

TOTAL CONNECTED LOAD:
IFL = 3.(0.25) + 14.42
= 14.42 APPLY 60% DEMAND FACTOR
= 11.54 A

PANEL "3HWPB-S1"
THIRD FLOOR ELECTRICAL ROOM-1 BLDG. B
HALLWAY PANEL BOARD

VOLTAGE: 230 | WIRES: 2 + G | MAIN FEEDER: 2- 5.5mm2 & 5.5 Grd. 20 mmPVC pipe
Ø: 1 | FREQ: 60 HZ | MAIN BREAKER: 30AT, 30AF, 1P + N, 10 KAIC
PHASE: 1 P

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE				CKT. BREAKER				WIRE & GND. (rev 2)	CONDUIT MM DIA.
			AN	BN	CN	3e	P	A.F	A.T	KAIC	THWN/THWN	
1	63 x 9.5W Led Light	598	2.60				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
2	12E 180 VA DUPLEX CONVENIENCE OUTLET	2,160	9.00				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
3	FAP-3F-B1	3,060	5.10				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
4	S P A R E						1	60	20	10	-	-
	TOTAL =	4,744	20.62									

TOTAL CONNECTED LOAD:
IFL = 0.(0.25) + 20.62
= 20.62 APPLY 80% DEMAND FACTOR
= 16.50 A

PANEL "4HWPB-S1"
FOURTH FLOOR ELECTRICAL ROOM-1 BLDG. B
HALLWAY PANEL BOARD

VOLTAGE: 230 | WIRES: 2 + G | MAIN FEEDER: 2- 5.5mm2 & 5.5 Grd. 20 mmPVC pipe
Ø: 1 | FREQ: 60 HZ | MAIN BREAKER: 30AT, 30AF, 1P + N, 10 KAIC
PHASE: 1 P

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE				CKT. BREAKER				WIRE & GND. (rev 2)	CONDUIT MM DIA.
			AN	BN	CN	3e	P	A.F	A.T	KAIC	THWN/THWN	
1	51 12 Led Light	672	3.50				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
2	WISEUA DUPLEX CONVENIENCE OUTLET	1,440	6.40				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
3	S P A R E						1	60	20	10	-	-
4	FAP-4F-B1	696	2.17				1	16	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
	TOTAL =	2,807	10.83									

TOTAL CONNECTED LOAD:
IFL = 0.(0.25) = 10.83
= 10.85 APPLY 80% DEMAND FACTOR
= 8.68 A

PANEL "2AFB-S2"
SECOND FLOOR ELECTRICAL ROOM-2 BLDG. B
ADMINISTRATION PANEL BOARD

VOLTAGE: 400 / 230 | WIRES: 4 + G | MAIN FEEDER: 4- 8.0mm2 & 8.0 Grd. 32 mmPVC pipe
Ø: 3 P | FREQ: 60 HZ | MAIN BREAKER: 30AT, 30AF, 3P + N, 10 KAIC @ 230V, MCCB
PHASE: 3 P

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE				CKT. BREAKER				WIRE & GND. (rev 2)	CONDUIT MM DIA.
			AN	BN	CN	3e	P	A.F	A.T	KAIC	THWN/THWN	
1	FAP-2F-B3	696	2.17				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
2	13 DUPLEX CONV. OUTLET	2,340	9.00				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
3	22 x13W Led Light	858		1.95			1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
4	12 x13W Led Light	264			1.15		1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
5	10 DUPLEX CONV. OUTLET	1,800				7.17	1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
6	1KB W FAN COIL, 4F 25S W FAN CO	1,764				7.40	1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
7	FAP-2F-B2	900	2.17				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
8	S P A R E				-		1	60	20	10	-	-
	TOTAL =	6,707	13.67	2.82	14.84							

TOTAL CONNECTED LOAD:
IFL = 3.41 (0.25) + 14.84
= 15.69 APPLY 85% DEMAND FACTOR
= 13.58 A

PANEL "3AFB-S2"
THIRD FLOOR ELECTRICAL ROOM-2 BLDG. B
ADMINISTRATION PANEL BOARD

VOLTAGE: 400 /230 | WIRES: 4 + G | MAIN FEEDER: 4-5.5mm2 & 5.5 Grd. 20 mmPVC pipe
Ø: 3 P | FREQ: 60 HZ | MAIN BREAKER: 30AT, 30AF, 3P + N, 10 KAIC
PHASE: 3 P

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE				CKT. BREAKER				WIRE & GND. (rev 2)	CONDUIT MM DIA.
			AN	BN	CN	3e	P	A.F	A.T	KAIC	THWN/THWN	
1	2 X28 W FAN COIL, 4X 25W W FAN COI	1,764	7.67				1	60	30	10	3-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
2	FAP-3F-B1	900	3.17				1	60	30	10	3-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
3	24 x 12W Led Light	580		1.65			1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
4	50 x 29W Led Light	1,465		8.40			1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
5	11X 180 VA DUPLEX CONVENIENCE OUTLET	1,815			7.88		1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
6	S P A R E				-		1	60	20	10	-	-
7	6X 180 VA DUPLEX CONVENIENCE OUTLET	388	1.33				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
8	FAP-2F-B2	745	3.24				1	60	20	10	2-3.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
	TOTAL =	6,664	8.84	8.11	7.88							

TOTAL CONNECTED LOAD:
IFL = 3.41 (0.25) + 8.84
= 10.69 APPLY 85% DEMAND FACTOR
= 9.08 A

PANEL "4AFB-S2"
FOURTH FLOOR ELECTRICAL ROOM-2 BLDG. B
ADMINISTRATION PANEL BOARD

VOLTAGE: 400 /230 | WIRES: 4 + G | MAIN FEEDER: 4-5.5mm2 & 5.5 Grd. 20 mmPVC pipe
Ø: 3 P | FREQ: 60 HZ | MAIN BREAKER: 30AT, 30AF, 3P + N, 10 KAIC
PHASE: 3 P

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE				CKT. BREAKER				WIRE & GND. (rev 2)	CONDUIT MM DIA.
			AN	BN	CN	3e	P	A.F	A.T	KAIC	THWN/THWN	
1	FAP-4F-B2	900	2.72				1	60	20	10	3-5.5mm² THWN WIRE	25mm Ø PVC PIPE
2	FAP-4F-B3	900	2.72				1	60	20	10	3-5.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
3	8 X 18S VA DUPLEX CONVENIENCE OUTLET	1,122		5.10			1	60	20	10	3-5.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
4	7X 18S VA DUPLEX CONVENIENCE OUTLET	1,220			7.17		1	60	20	10	3-5.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
5	10 KB W FAN COIL, 4X 25W W FAN COIL	1,764			7.67		1	60	30	10	3-5.5mm² THWN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
6	S P A R E						1	60	30	10	-	-
7	24 x 12W Led Light	288	1.32				1	56	20	10	-	-
8	54 x 12W Led Light	648	3.52				1	64	30	10	-	-
	TOTAL =	6,464	10.53	12.91	7.67							

TOTAL CONNECTED LOAD
IFL =3.41 (0.25) + 12.91
= 13.78 APPLY 85% DEMAND FACTOR
= 11.21 A

PANEL "3EDPB-S1"
THIRD FLOOR ELECTRICAL ROOM-1 BLDG. B
EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE: 400-230 | WIRES: 4 + G | MAIN FEEDER: 4- 50 mm2 & 14 Grd. 40mm PVC PIPE / CABLE TRAY
Ø: 3 P | FREQ: 60 HZ | MAIN BREAKER: 150AT, 125AF, 3P + N, 18 KAIC, MCCB
PHASE: 3 P

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE				CKT. BREAKER				WIRE & GND. (rev 2)	CONDUIT MM DIA.
			AN	BN	CN	3e	P	A.F	A.T	KAIC	THWN/THWN	
C1	(3SPB-B301) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C2	(3SPB-B302) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C3	(3SPB-B303) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C4	(3SPB-B304) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C5	(3SPB-B305) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C6	(3SPB-B306) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C7	(3SPB-B307) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C8	(3SPB-B308) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C9	(3SPB-B309) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C10	(3SPB-B310) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C11	(3SPB-B311) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C12	(3SPB-B312) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C13	(3SPB-B313) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C14	(3SPB-B314) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C15	(3SPB-B315) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C16	(3SPB-B316) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C17	(3SPB-B317) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C18	(3SPB-B318) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C19	(3SPB-B319) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C20	(3SPB-B320) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C21	(3SPB-B321) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C22	(3SPB-B322) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C23	(3SPB-B323) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C24	(3SPB-B324) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C25	(3SPB-B325) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C26	(3SPB-B326) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C30	IDF	7,000	30.43				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C31	(3HWPB-S1) PANEL BOARD	4,744		20.62			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C32	S P A R E						1	50	50	10	-	-
C33	S P A R E						1	50	50	10	-	-
C34	S P A R E						1	50	50	10	-	-
	TOTAL =	131,859	222.72	150.44	164.62							

TOTAL CONNECTED LOAD:
IFL = 10.(29%) + 222.72
= 220.22 APPLY 35% DEMAND FACTOR *(NOT per Table 2.20.4-5 PEC)*
= 66.08 A

PANEL "4EDPB-S1"
FOURTH FLOOR ELECTRICAL ROOM-1 BLDG. B
EMERGENCY DISTRIBUTION PANEL BOARD

VOLTAGE: 400-230 | WIRES: 4 + G | MAIN FEEDER: 4- 60 mm2 & 14 Grd. 40mm PVC PIPE / CABLE TRAY
Ø: 3 P | FREQ: 60 HZ | MAIN BREAKER: 150AT, 225AF, 3P + N, 18 KAIC, MCCB
PHASE: 3 P

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE				CKT. BREAKER				WIRE & GND. (rev 2)	CONDUIT MM DIA.
			AN	BN	CN	3e	P	A.F	A.T	KAIC	THWN/THWN	
C1	(4SPB-B401) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C2	(4SPB-B402) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C3	(4SPB-B403) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C4	(4SPB-B404) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C5	(4SPB-B405) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C6	(4SPB-B406) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C7	(4SPB-B407) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C8	(4SPB-B408) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C9	(4SPB-B409) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C10	(4SPB-B410) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C11	(4SPB-B411) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C12	(4SPB-B412) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C13	(4SPB-B413) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C14	(4SPB-B414) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C15	(4SPB-B415) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C16	(4SPB-B416) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C17	(4SPB-B417) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C18	(4SPB-B418) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C19	(4SPB-B419) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C20	(4SPB-B420) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C21	(4SPB-B421) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C22	(4SPB-B422) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C23	(4SPB-B423) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C24	(4SPB-B424) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C25	(4SPB-B425) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C26	(4SPB-B426) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C27	(4SPB-B427) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C28	(4SPB-B428) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C29	(4SPB-B429) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C30	(4SPB-B430) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C31	(4SPB-B431) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C32	(4SPB-B432) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C33	(4SPB-B433) PANEL BOARD	6,318	27.47				1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C34	(4SPB-B401) PANEL BOARD	6,318		27.47			1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C35	(4SPB-B435) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C36	(4SPB-B436) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C37	(4SPB-B437) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C38	(4SPB-B438) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C39	(4SPB-B439) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C40	(4SPB-B440) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C41	(4SPB-B441) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C42	(4SPB-B442) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C43	(4SPB-B443) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C44	(4SPB-B444) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C45	(4SPB-B445) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C46	(4SPB-B446) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C47	(4SPB-B447) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C48	(4SPB-B448) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C49	(4SPB-B449) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN WIRE 1-5.5mm² TW GRD. WIRE (GREEN)	25mm Ø PVC PIPE
C50	(4SPB-B450) PANEL BOARD	6,318			27.47		1	50	50	10	2-8.0mm² THWN

PANEL "SAPS-B2"
FIFTH FLOOR ELECTRICAL ROOM-2 BLDG. B
ADMINISTRATION PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 4- 5.5mm2 & 3.5 Gnd. 25 mmPVC pipe
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 50AT, 100AF, 3P + N, 10 KAIC

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
1	FAF-SF-B1	500	2.72				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
2	FAF-SF-B5	500	2.72				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
3	9-DUPLEX CONVENIENCE OUTLET	1,485		8.46			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
4	24 x12 w Led Light	288		1.25			1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
5	36 x12 w Led Light	240			1.04		1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
6	S P A R E				-		1	50	20	10	-	-
7	8-DUPLEX CONVENIENCE OUTLET	1,485	8.67				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
8	1X 628 W FAN COIL, 4X 384 W FAN COIL	1,764	9.59				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
	TOTAL =	5,262	23.59	7.71	1.04							

TOTAL CONNECTED LOAD:
IFL = 3.41 (0.25) + 23.09
= 23.94 APPLY 80% DEMAND FACTOR
= 19.15 A

PANEL "6HWPB-B1"
FIFTH FLOOR ELECTRICAL ROOM-1 BLDG. B
HALLWAY PANEL BOARD

VOLTAGE : 230 — WIRES : 2 + G — MAIN FEEDER: 2- 5.5mm2 & 5.5 Gnd. 25 mmPVC pipe
PHASE : 1 P — FREQ. 60 HZ — MAIN BREAKER : 30AT, 50AF, 1P + N, 10 KAIC

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
1	77 x12 w Led Light	924	4.02				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
2	12X165VA DUPLEX CONVENIENCE OUTLET	1,980	8.61				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
3	FAF-SF-B1	500	2.17				1	50	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	20mm Ø PVC PIPE
4	S P A R E						1	50	20	10		
	TOTAL =	3,404	14.80									

TOTAL CONNECTED LOAD:
IFL = 3.41 (0.25) + 14.8
= 15.65 APPLY 80% DEMAND FACTOR
= 12.52 A

PANEL "6DPB-B1"
GROUND FLOOR ELECTRICAL ROOM-1 BLDG. B
PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 2 SETS OF 4 - 100mm2 & 30 Gnd. 75 mm PVC pipe/Cable Tray
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 400AT, 400AF, 3P + N, 50 KAIC MAIN CB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
1	(1EDPB-B1) PANEL BOARD	-	-	-	-		3	225	175	18	4 - 60mm2 THHN WIRE, 1 - 14mm2 TW GRD.	63 mm PVC pipe/CABLE TRAY
2	(2EDPB-B1) PANEL BOARD	140,016	216.76	192.39	209.67		3	225	150	18	4 - 60mm2 THHN WIRE, 1 - 14mm2 TW GRD.	63 mm PVC pipe/CABLE TRAY
3	(3EDPB-B1) PANEL BOARD	131,805	222.72	186.44	164.62		3	225	150	18	4 - 60mm2 THHN WIRE, 1 - 14mm2 TW GRD.	63 mm PVC pipe/CABLE TRAY
4	(4EDPB-B1) PANEL BOARD	116,780	166.28	164.82	148.06		3	225	150	18	4 - 60mm2 THHN WIRE, 1 - 14mm2 TW GRD.	63 mm PVC pipe/CABLE TRAY
5	S P A R E						3	100	100	18	-	-
5	(5EDPB-B1) PANEL BOARD	105,189	164.62	167.78	124.68		3	225	150	18	4 - 30mm2 THHN WIRE, 1 - 8.0mm2 TW GRD.	50 mm PVC pipe/CABLE TRAY
	TOTAL =	496,790	802.56	710.33	647.17							

TOTAL CONNECTED LOAD:
IFL = 10 (0.25) + 802.56
= 805.06 APPLY 23% DEMAND FACTOR *(NDF per Table 2.20.4.5 PEC)*
= 185.16 A

PANEL "MDPB-B2"
GROUND FLOOR ELECTRICAL ROOM-2 BLDG. B
PANEL BOARD

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 2 SETS- 4 - 250mm2 & 50 GROUND IN 110 mm PVC pipe/Cable Tray
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 700AT, 600AF, 3P, 50 KAIC MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
1	(1EDPB-B2) PANEL BOARD	144,366	169	221	224		3	225	200	18	4 - 100mm2 THHN WIRE, 1 - 14mm2 GROUND	76 mm PVC pipe/CABLE TRAY
2	(2EDPB-B2) PANEL BOARD	247,510	370.78	362.89	344.48		3	600	200	18	4 - 100mm2 THHN WIRE, 1 - 14mm2 GROUND	76 mm PVC pipe/CABLE TRAY
3	(3EDPB-B2) PANEL BOARD	221,046	332.60	329.64	302.17		3	225	200	18	4 - 100mm2 THHN WIRE, 1 - 14mm2 GROUND	76 mm PVC pipe/CABLE TRAY
4	(4EDPB-B2) PANEL BOARD	209,308	305.13	329.64	302.17		3	225	200	18	4 - 100mm2 THHN WIRE, 1 - 14mm2 GROUND	76 mm PVC pipe/CABLE TRAY
5	(5EDPB-B2) PANEL BOARD	219,027	329.64	329.64	275.49		3	225	200	18	4 - 100mm2 THHN WIRE, 1 - 14mm2 GROUND	76 mm PVC pipe/CABLE TRAY
6	S P A R E						3	225	200	18	-	-
	TOTAL =	1,037,947	1,520.89	1,572.85	1,448.18	-						

TOTAL CONNECTED LOAD:
IFL = 10 (0.25) + 1572.85
= 1,576.35 APPLY 23% DEMAND FACTOR *(NDF per Table 2.20.4.5 PEC)*
= 362.33 A

PANEL "EMPB-B0"
FIFTH FLOOR BLDG. B

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 3 - 125mm2 & 22mm2 Gnd. 75 mmPVC pipe
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 250AT, 400AF, 3P, 30 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
1	S P A R E						3	100	100	25		
2	S P A R E						3	100	100	25		
3	SEF-RD-03, 1.5HP	1397.5				2.02	3	100	60	25	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
4	PAF-RD-03, 5HP	4,650				6.71	3	100	60	25	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
	TOTAL =	6,048	-			8.73						

TOTAL CONNECTED LOAD:
IFL = (0.25) + 8.73
= 8.73 A
OVER CURRENT PROTECTION: SOFT START
IFL = (1.5) + 8.73 A
= 9 A

PANEL "6MPB-B1"
FIFTH FLOOR ELECTRICAL ROOM-1 BLDG. B

VOLTAGE : 400 /230 — WIRES : 3 + G — MAIN FEEDER: 2SETS OF 3 - 100 mm2 & 22 Gnd. 75mm PVC PIPE / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 400AT, 400AF, 3P + N, 30 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	(5MPB-B0) PANEL BOARD	6,048	-	-	-	8.73	3	400	250	30	3-125mm² THHN WIRE 1-22mm² GROUND (GREEN)	75mm Ø PVC PIPE / CABLE TRAY
C2	SEF-RD-04, 1.5HP + EAF-S4-RD-B1, 2HP	3,261				4.71	3	100	100	25	2 SETS 3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
C3	PAF-RD-04, 1.5HP	1,398				2.02	3	100	100	25	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
C4	SPARE						3	100	60	25	-	-
C5	SPACE											
	TOTAL =	10,706	-			15.46						

TOTAL CONNECTED LOAD:
IFL = 36.08 (0.25) + 15.46
= 24.48 A
OVER CURRENT PROTECTION: SOFT START
IFL = 36.08 (1.5) + 15.46
= 69.58 A

PANEL "5MPB-B2"
FIFTH FLOOR ELECTRICAL ROOM-2 BLDG. B

VOLTAGE : 400 / 230 — WIRES : 3 + G — MAIN FEEDER: 3 SETS OF 3 - 200 mm2 & 30 Gnd. 90mm PVC PIPE / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 600AT, 800AF, 3P, 30 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	(5MPB - B1) PANEL BOARD	10,706	-	-	-	15.46	3	400	400	30	2 SETS OF 3-100mm² THHN WIRE 1-30mm² GROUND	2-75mm Ø PVC PIPE / CABLE TRAY
C2	(5MPB - B3) TYPICAL TO (5MPB-B0)	6,048	-	-	-	8.73	3	400	250	30	3-125mm² THHN WIRE 1-22mm² GROUND (GREEN)	75mm Ø PVC PIPE / CABLE TRAY
C3	PAF-F L-B, 5HP	4,650				6.71	3	100	100	30	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
C4	PAF-RD-05, 7.5HP	6,875				9.92	3	100	100	30	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
C5	ODU-2F-5F ARUN180LLS5	27,540				31.80	3	100	75	30	3-14mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	32mm Ø PVC PIPE / CABLE TRAY
C6	ODU-GF-2 ARUN160LLS5	23,642				27.30	3	100	60	30	3-14mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	32mm Ø PVC PIPE / CABLE TRAY
C7	SEF-RD-05, 1.5 HP + EAF-S5-RD-B2, 2HP	3,261				4.71	3	100	40	30	2SETS 3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE / CABLE TRAY
C8	ODU-GF-1 ARUN 080LLS5	16,714				19.30	3	100	40	30	3-8.0mm² THHN WIRE 1-5.5mm² GROUND (GREEN)	25mm Ø PVC PIPE / CABLE TRAY
	TOTAL =	99,436.39	-			123.93						

TOTAL CONNECTED LOAD:
IFL = 36.08 (0.25) + 123.93
= 132.95 A
OVER CURRENT PROTECTION: SOFT START
IFL = 36.08 (1.5) + 123.93
= 178.05 A

PANEL "EL-PB"

VOLTAGE : 400 / 230 — WIRES : 3 + G — MAIN FEEDER: 3 - 60mm2 & 14 Gnd. 63 mm PVC PIPE / CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 150AT, 225AF, 3P + N, 30 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	15 HP, 3P , 400V , 60HZ (ELEVATOR - 1)	16,731.00				24.15	3	50	50	25	3-8.0mm² THHN WIRE 1-5.5 mm² GROUND (GREEN)	32mm Ø PVC PIPE / CABLE TRAY
C2	15 HP, 3P , 400V , 60HZ (ELEVATOR - 2)	16,731.00				24.15	3	50	50	25	3-8.0mm² THHN WIRE 1-5.5 mm² GROUND (GREEN)	32mm Ø PVC PIPE / CABLE TRAY
C3	15 HP, 3P , 400V , 60HZ (ELEVATOR - 3)	16,731.00				24.15	3	50	50	25	3-8.0mm² THHN WIRE 1-5.5 mm² GROUND (GREEN)	32mm Ø PVC PIPE / CABLE TRAY
C4	S P A R E						3	50	50	25		
	TOTAL =	50,193.00	-			72.45						

TOTAL CONNECTED LOAD:
IFL = 24.15 (0.25) + 72.45
= 78.49 A
OVER CURRENT PROTECTION: SOFT START
IFL = 24.15 (1.5) + 72.45
= 108.68 A

PANEL "6MPB-B3"
FIFTH FLOOR BLDG. B

VOLTAGE : 400 / 230 — WIRES : 4 + G — MAIN FEEDER: 3 - 125mm2 & 22mm2 Gnd. 75 mmPVC pipe
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 250AT, 400AF, 3P, 30 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
1	PAF-RD-06, 5HP	4,650				6.71	3	100	100	25	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
2	S P A R E						3	100	100	25		
3	SEF-RD-06, 1.5HP	1397.5				2.02	3	100	60	25	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
4	EAF-S6-RD-B3, 2HP	1,864				2.69	3	100	60	25	3-3.5mm² THHN WIRE 1-3.5mm² GROUND (GREEN)	20mm Ø PVC PIPE
	TOTAL =	7,911	-			11.42						

TOTAL CONNECTED LOAD:
IFL = 6.71 (0.25) + 11.42
= 13.10 A
OVER CURRENT PROTECTION: SOFT START
IFL = 6.71 (1.5) + 11.42 A
= 21 A

BUILDING B
1 / E-45 **LOAD SCHEDULE 3**
SCALE NTS

OWNER : NGAC PHASE I JV COMPANY
BCDA Bases Conversion and Development Authority — AND — MTD
VIVENCIO B. DIZON, PRESIDENT
MTD Clark, Inc. — PATRICK NICHOLAS P. DAVID, PRESIDENT

PREPARED BY:
FREY-FIL CORPORATION
MANILA - DAVAO - CEBU - ILOILO
ZOILO S. DELA CRUZ, VICE PRESIDENT - OPERATION
REG No.: 0022657 — PTR No: 6118498
TIN No.: 116-426-274 — PLACE: MAKATI
DATE: 01.20.2019

REVIEWED AND VALIDATED BY:
FILIPINAS DRAVO CORPORATION
Architectural & Engineering Consultants
ALFREDO R. DEVILLA, PROJECT MANAGER

SUBMITTED BY:
BANDAR HEBAT BUILDERS, INC.
ISAAC S. DAVID, PRESIDENT

CERTIFIED BY: INDEPENDENT CONSULTANT
TCGI ENGINEERS
VIRGILIO A. MADRAZO, PRESIDENT/CEO

PROJECT TITLE:
AS-BUILT DRAWING
NGAC PHASE 1A
ATHLETES VILLAGE - BUILDING B
ELECTRICAL
New Clark City, Capas, Tarlac

SHEET CONTENTS:
BUILDING "B" LOAD SCHEDULE 3

SHEET NO.
E-45

PANEL "MDP-B/ATS-B "
GROUND FLOOR TRSNSFORMER ELECTRICAL ROOM BLDG. B
MAIN DISTRIBUTION PANEL BOARD

VOLTAGE : 400 / 230 WIRES : 4 + G MAIN FEEDER:(7 SETS- 4 - 250mm2 THHN) + 7x30 GROUND. 110 mm PVC PIPE IN CONCRETE ENCASEMENT
PHASE : 3 P FREQ. 60 HZ MAIN BREAKER : 2500AT, 2500AF, 3P + N, 65 KAIC @ 400V MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE				CKT. BREAKER				WIRE & GND. (mm 2)	CONDUIT MM DIA.
			AN	BN	CN	3ø	P	A.F	A.T	KAIC	THHN/THWN	
C1	(MMDPB-B2) PANEL BOARD	149,629	-	-	-	196.38	3	1200	1000	50	3 SETS - 3 - 250mm2 THHN WIRE, 1 - 30mm2 TW GRD.	3-110 mm PVC pipe/Cable Tray
C2	(MDPB-B2) PANEL BOARD	1,037,947	1,520.89	1,572.85	1,448.16	0	3	800	700	50	2 SETS - 4 - 250mm2 THHN WIRE, 1 -30mm2 TW GRD.	3-110 mm PVC pipe /Cable Tray
C3	(MDPB-B1) PANEL BOARD	496,790	802.56	710.33	647.17		3	400	400	50	2 SETS - 4 - 100mm2 THHN WIRE, 1 - 30mm2 TW GRD.	2-75 mm PVC pipe/Cable Tray
C4	S P A R E						3	400	400	50	-	-
	TOTAL =	1,534,736	2,323.45	2,283.19	2,095.33	-						

TOTAL CONNECTED LOAD:

IFL = 43.3 (0.25) + 2323.45 (23% D.F) + 0 (80% D.F)

= 545.22 A

TRANSFORMER REQUIREMENT:

$$KVA = \frac{545.22 \text{ X } (400V) \text{ x } (1.732)}{1000}$$

= 377.73

USE: 1-1.5 MVA PAD MOUNTED POWER TRANSFORMER
13.8KV/7968V , PRIMARY 3-PHASE, 60HZ
400Vac LINE TO LINE 230Vac LINE TO NEUTRAL, SECONDARY

PANEL "MMDPB-B2"
GROUND FLOOR ELECTRICAL ROOM-2 BLDG. B
MAIN MECHANICAL PANEL BOARD

VOLTAGE : 400 / 230 WIRES : 4 + G MAIN FEEDER: 3 SETS OF 3 - 250mm2 & 60 Gnd. 110 mm PVC pipe
PHASE : 3 P FREQ. 60 HZ MAIN BREAKER : 1000AT, 1200AF, 3P + N, 50 KAIC, 400V, MCCB

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE				CKT. BREAKER				WIRE & GND. (mm 2)	CONDUIT MM DIA.
			AN	BN	CN	3ø	P	A.F	A.T	KAIC	THHN/THWN	
C1	(SMPB - B2) PANEL BOARD	99,436	-	-	-	123.93	3	800	800	30	3 SETS OF 4-200mm² THHN WIRE & 1-38mm² GROUND	3-90mm Ø PVC PIPE/ CABLE TRAY
C2	(EL - PB) PANEL BOARD TYPICAL TO (EL-PB) BLDG-A	50,193	-	-	-	72.45	3	225	150	30	3-60mm² THHN, 1-14mm² GROUND (GREEN)	63mm Ø PVC PIPE
C3	SPARE						3	100	60	30		
C4	SPARE						3	100	60	30	-	-
	TOTAL =	149,629	-			196.38						

TOTAL CONNECTED LOAD:

IFL = 36.08 (0.25) + 196.38
= 205.40 A

OVER CURRENT PROTECTION:

IFL = (1.5) + 196.38
= 196.38 A

GENERATOR SET REQUIREMENT

IT = 2758.13 A (23% D.F) + 411.75 (75 D.F)

IT = 943.18 A

$$KVA = \frac{943.18 \text{ (} 400V \text{) X (} 1.732 \text{)}}{1,000}$$

KVA (TOTAL)= 653.44

KVA = 326.72

USE: 2 SETS OF 500 KW , 60 HZ STAND-BY GENERATOR SET
VOLTAGE : 400 Vac LINE - LINE / 230 Vac LINE - NEUTRAL
3 - PHASE , 4 WIRES , 80% PF , 60 HZ

GENERATOR (IFL) FULL LOAD CURRENT :

$$IFL = \frac{500 \text{ (} 1,000 \text{) / } 0.8}{400V \text{ (} 1.732 \text{)}}$$

IFL = 902.14

USE : GENERATOR PANEL BOARD

1.) 3 SETS OF
- 3-250mm² THW WIRE (1,125 A / 902 A) IN 100mm Ø C (4" Ø)
- 1-250mm² THW NEUTRAL WIRE (WHITE)
- 1-60mm² TW GROUND WIRE (GREEN)

2.) 1000 AT / 1200 AF , 3P , 50 KA @ 400 V MAIN CB

APPROXIMATE DIMENSION : 3000 mm LENGTH x 1,140 mm WIDTH x 1,841 mm HEIGHT (OPEN TYPE)
DRY WEIGHT (OPEN TYPE) : 2,500 KG
FREQUENCY : 60 HZ

MEDIUM VOLTAGE SWITCH GEAR

1.5 MVA , 13.8 KV , PRIMARY
400Vac LINE - LINE / 230 Vac LINE - NEUTRAL SECONDARY

SHORT CIRCUIT CAPACITY:

MVA(SC)= 100 @t=3SEC

$$(SC) = \frac{100 \text{ x } 1,000,000}{(1.732 \text{ x } 13,800)} = 4183.7 \text{ A}$$

WHERE:

A	-	*WIRE CROSS SECTONAL AREA*	50.9 sq. mm.
I(SC)	-	*CURRENT (AMPERE, rms)*	4,183.70 A
t	-	*CURRENT LET-THROUGH TIME (SEC.)*	3.00 SEC
T(f)	-	*WIRE TEMPERATURE DUE TO SHORT CIRCUIIT (°C)*	250°C
T(i)	-	*WIRE OPERATING TEMPERATURE (°C)*	90°C

$$A = \sqrt{\frac{((4183.7)^2 \text{ x } 3 \text{ sec.})}{50,500 \log(e)((234 + 250)/(234 + 90)))}}$$

A= 50.9 sq. mm.

USE: 1.) 1 SET OF (3 - 1 x 50mm²) XLPE POWER CABLE, 15 KV (SHIELDED) 133% BIL COPPER IN 110mmØ PVC PIPE SCH.40
1 SET OF 1-50mm² TW GRD WIRE IN 110mmØ PIPE

2.) 630 AT, 25 KA SHORT TIME WITHSTAND CURRENT
67.5 KA, RATED PEAK CURRENT, 13.8 KV, RATED VOLTAGE

NOTE: USE 3M MEDIUM VOLTAGE, COLD SHRINK TERMINATION KITS

BUILDING A
LOAD SCHEDULE 4
1 / E-46 SCALE: NTS

OWNER : NGAC PHASE I JV COMPANY
BCDA Bases Conversion and Development Authority
VIVENCIO B. DIZON
PRESIDENT
AND
MTD Clark, Inc.
PATRICK NICHOLAS P. DAVID
PRESIDENT

PREPARED BY:
FREY-FIL CORPORATION
MANILA - DAVAO - CEBU - ILOILO
ZOILO S. DELA CRUZ
VICE PRESIDENT - OPERATION
REG No.: 0022657 PTR No: 8118498
TIN No.: 115-426-274 PLACE: MKTI
DATE: 01.20.2018

REVIEWED AND VALIDATED BY:
FILIPINAS DRAVO CORPORATION
Architectural & Engineering Consultants
ALFREDO C. REVILLA
PROJECT MANAGER

SUBMITTED BY:
BANDAR HEBAT BUILDERS, INC.
ISAAC S. DAVID
PRESIDENT

CERTIFIED BY: INDEPENDENT CONSULTANT
TCGI ENGINEERS
VIRGILIO A. MADRAZO
PRESIDENT/CEO

PROJECT TITLE:
AS-BUILT DRAWING
NGAC PHASE 1A
ATHLETES VILLAGE - BUILDING B
ELECTRICAL
New Clark City, Capas, Tarlac

SHEET CONTENTS:
BUILDING "B" LOAD SCHEDULE 4

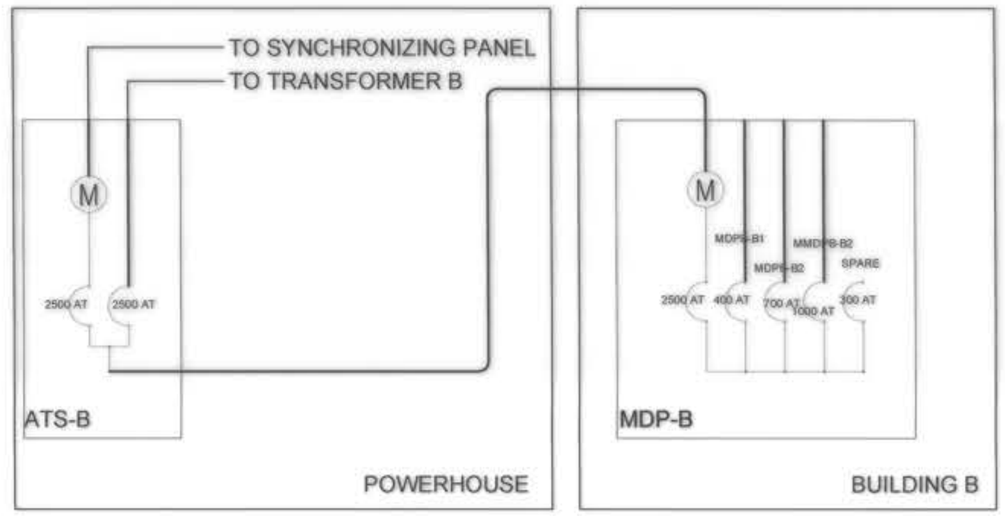
SHEET NO.
E-46

LEGEND:

x1 = 1-3.5mm² THW WIRE IN 20Ømm PVC PIPE
x2 = 2-3.5mm² THW WIRE IN 20Ømm PVC PIPE
x3 = 3-3.5mm² THW WIRE IN 20Ømm PVC PIPE
x4 = 4-3.5mm² THW WIRE IN 20Ømm PVC PIPE
x5 = 5-3.5mm² THW WIRE IN 20Ømm PVC PIPE

LEGEND FOR ROOF DECK:

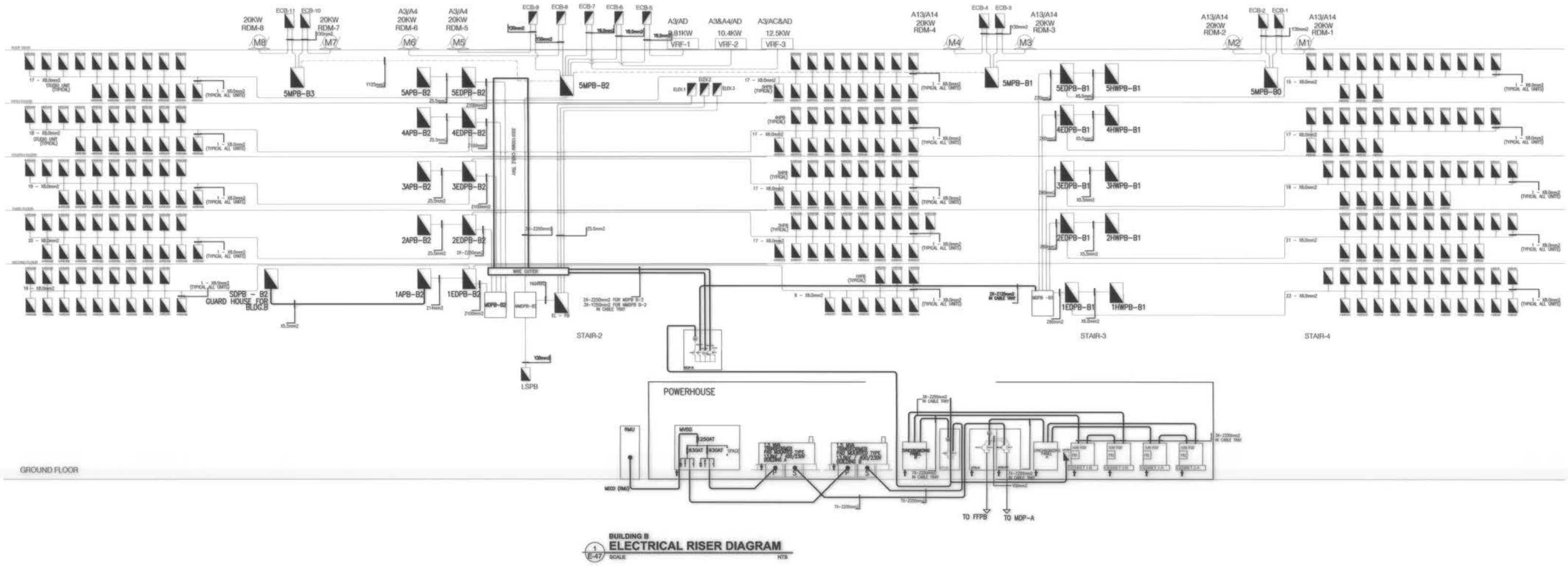
1.) RDM-1 = FRESH AIR BLOWER (M-1)
1.) RDM-2 = EXHAUST BLOWER (M-2)
1.) RDM-3 = FRESH AIR BLOWER (M-3)
1.) RDM-4 = EXHAUST BLOWER (M-4)
1.) RDM-5 = FRESH AIR BLOWER (M-5)
1.) RDM-6 = EXHAUST BLOWER (M-6)
1.) RDM-7 = FRESH AIR BLOWER (M-7)
1.) RDM-8 = FRESH AIR BLOWER (M-8)



Z3.5mm2	4 – 3.5mm2THWN + 1 – 2.0mm2THWN in 20mm PVC PIPE
Z5.5mm2	4 – 5.5mm2THWN + 1 – 3.5mm2THWN in 25mm PVC PIPE
Z8.0mm2	4 – 8.0mm2THWN + 1 – 3.5mm2THWN in 32mm PVC PIPE
Z14mm2	4 – 14mm2THWN + 1 – 5.5mm2THWN in 32mm PVC PIPE
Z22mm2	4 – 22mm2THWN + 1 – 8.0mm2THWN in 40mm PVC PIPE
Z30mm2	4 – 30mm2THWN + 1 – 14mm2THWN in 40mm PVC PIPE
Z38mm2	4 – 38mm2THWN + 1 – 14mm2THWN in 50mm PVC PIPE
Z50mm2	4 – 50mm2THWN + 1 – 14mm2THWN in 50mm PVC PIPE
Z60mm2	4 – 60mm2THWN + 1 – 22mm2THWN in 65mm PVC PIPE
Z80mm2	4 – 80mm2THWN + 1 – 22mm2THWN in 65mm PVC PIPE
Z100mm2	4 – 100mm2THWN + 1 – 22mm2THWN in 80mm PVC PIPE
Z125mm2	4 – 125mm2THWN + 1 – 30mm2THWN in 80mm PVC PIPE
Z150mm2	4 – 150mm2THWN + 1 – 30mm2THWN in 90mm PVC PIPE
Z200mm2	4 – 200mm2THWN + 1 – 30mm2THWN in 110mm PVC PIPE
Z250mm2	4 – 250mm2THWN + 1 – 30mm2THWN in 110mm PVC PIPE
Y3.5mm2	3 – 3.5mm2THWN + 1 – 2.0mm2THWN in 20mm PVC PIPE
Y5.5mm2	3 – 5.5mm2THWN + 1 – 3.5mm2THWN in 25mm PVC PIPE
Y8.0mm2	3 – 8.0mm2THWN + 1 – 3.5mm2THWN in 32mm PVC PIPE
Y13mm2	3 – 13mm2THWN + 1 – 5.5mm2THWN in 32mm PVC PIPE
Y22mm2	3 – 22mm2THWN + 1 – 8.0mm2THWN in 40mm PVC PIPE
Y30mm2	3 – 30mm2THWN + 1 – 14mm2THWN in 40mm PVC PIPE
Y38mm2	3 – 38mm2THWN + 1 – 14mm2THWN in 50mm PVC PIPE
Y50mm2	3 – 50mm2THWN + 1 – 14mm2THWN in 50mm PVC PIPE
Y60mm2	3 – 60mm2THWN + 1 – 22mm2THWN in 65mm PVC PIPE
Y80mm2	3 – 80mm2THWN + 1 – 22mm2THWN in 65mm PVC PIPE
Y100mm2	3 – 100mm2THWN + 1 – 22mm2THWN in 80mm PVC PIPE
Y125mm2	3 – 125mm2THWN + 1 – 30mm2THWN in 80mm PVC PIPE
Y150mm2	3 – 150mm2THWN + 1 – 30mm2THWN in 90mm PVC PIPE
Y200mm2	3 – 200mm2THWN + 1 – 30mm2THWN in 110mm PVC PIPE
Y250mm2	3 – 250mm2THWN + 1 – 30mm2THWN in 110mm PVC PIPE
X3.5mm2	2 – 3.5mm2THWN + 1 – 2.0mm2THWN in 20mm PVC PIPE
X5.5mm2	2 – 5.5mm2THWN + 1 – 3.5mm2THWN in 20mm PVC PIPE
X8.0mm2	2 – 8.0mm2THWN + 1 – 3.5mm2THWN in 25mm PVC PIPE
X14mm2	2 – 14mm2THWN + 1 – 5.5mm2THWN in 25mm PVC PIPE
X22mm2	2 – 22mm2THWN + 1 – 8.0mm2THWN in 32mm PVC PIPE

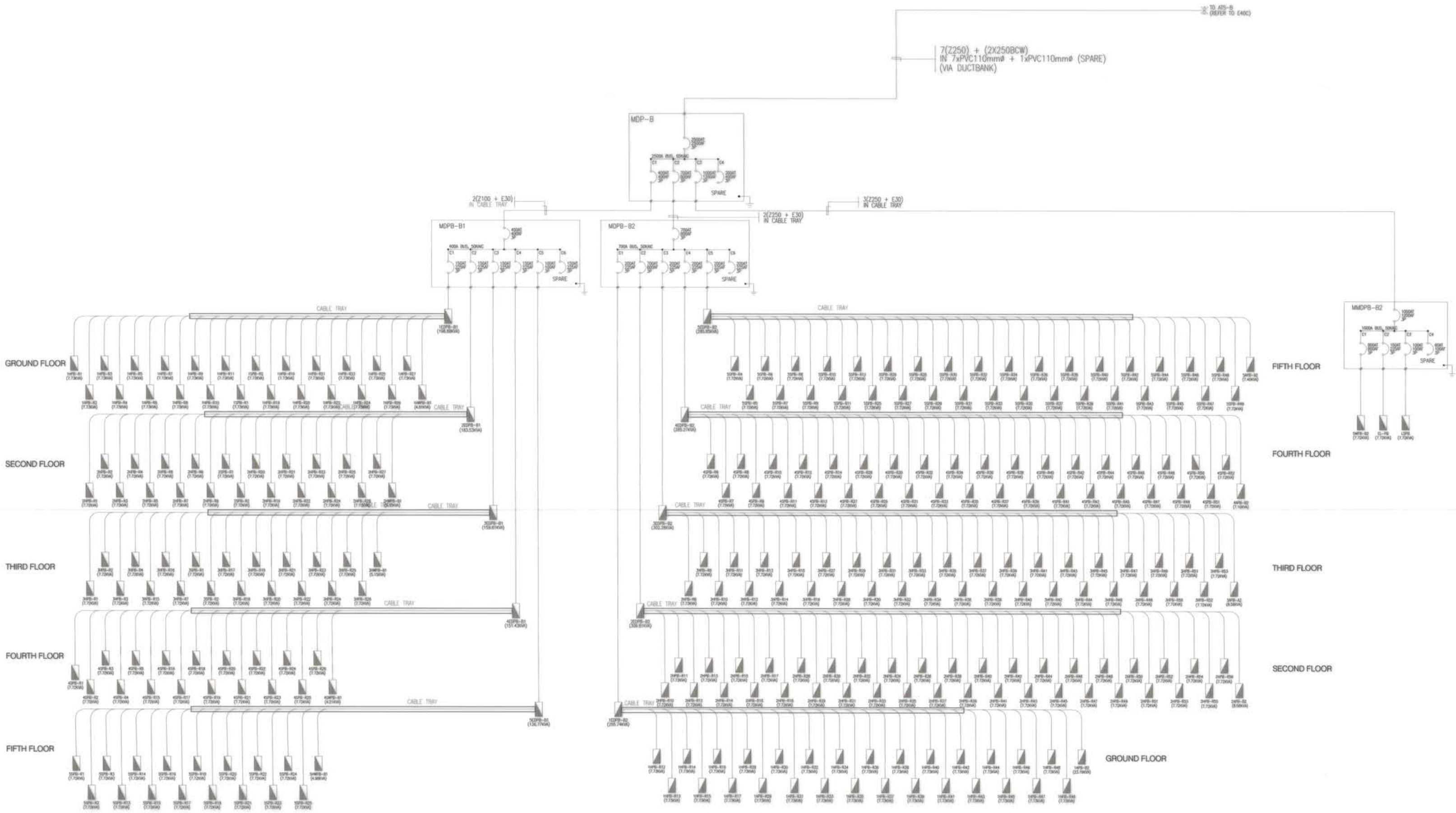
WIRE CODE

BUILDING B
2 / E-47 **BLOW-UP ATS-B AND MDP-B**
SCALE NTS



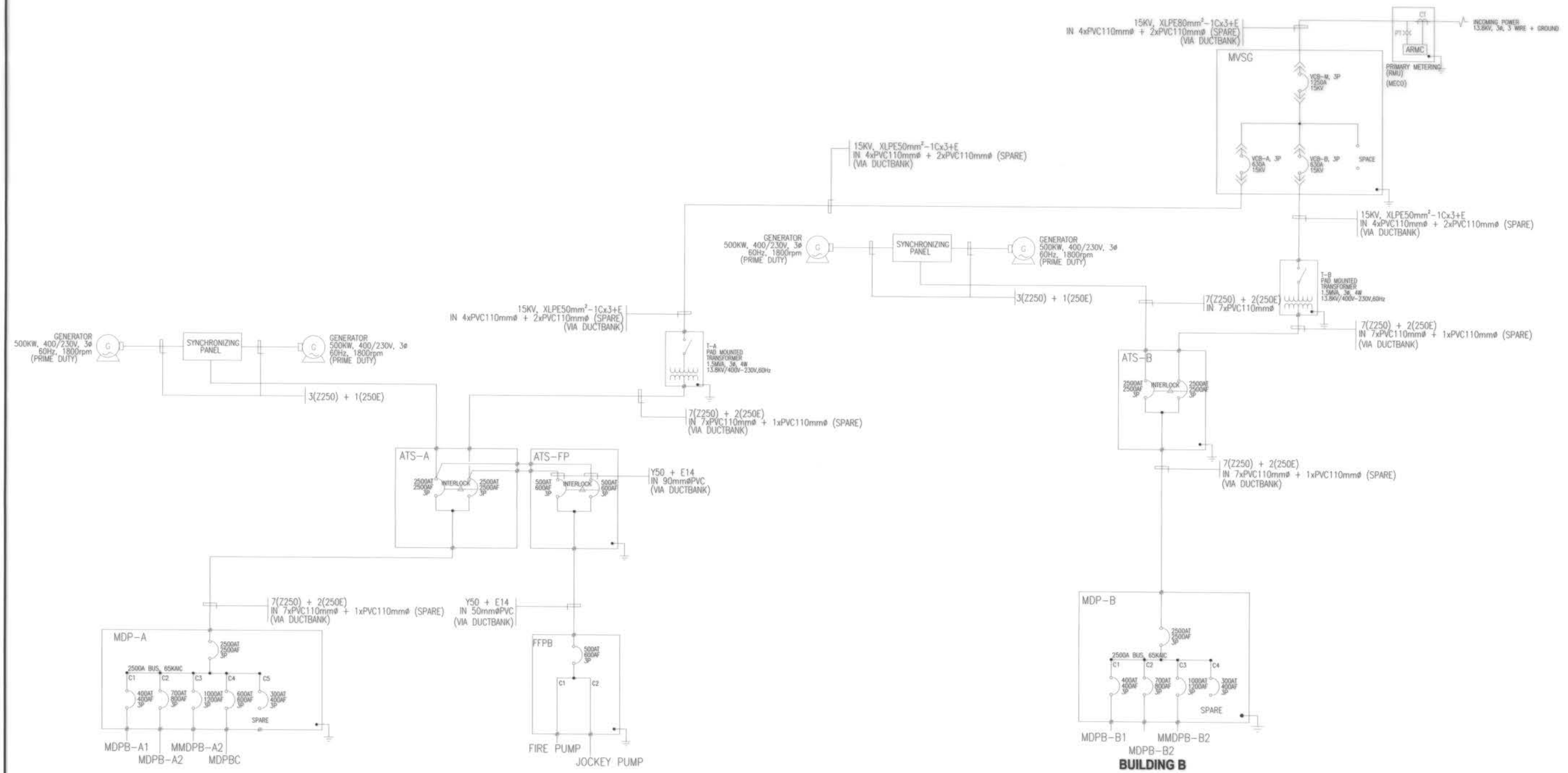
BUILDING B
1 / E-47 **ELECTRICAL RISER DIAGRAM**
SCALE NTS

OWNER : NGAC PHASE I JV COMPANY BCDA and MTD VIVENCIO B. DIZON, PRESIDENT AND PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022657 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" ELECTRICAL RISER DIAGRAM	SHEET NO. E-47



BUILDING B
POWER SINGLE LINE DIAGRAM
1/E-48 SCALE NTS

OWNER : NGAC PHASE I JV COMPANY BCDA Bases Conversion and Development Authority VIVENCIO B. DIZON PRESIDENT AND MTO Clark, Inc. PATRICK NICHOLAS P. DAVID PRESIDENT	PREPARED BY: FREY-FIL CORPORATION ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022607 PTR No: 8118498 TIN No.: 116-426-224 PLACE: MANILA DATE: 01.20.2015	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO B. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" POWER SINGLE LINE DIAGRAM	SHEET NO. E-48

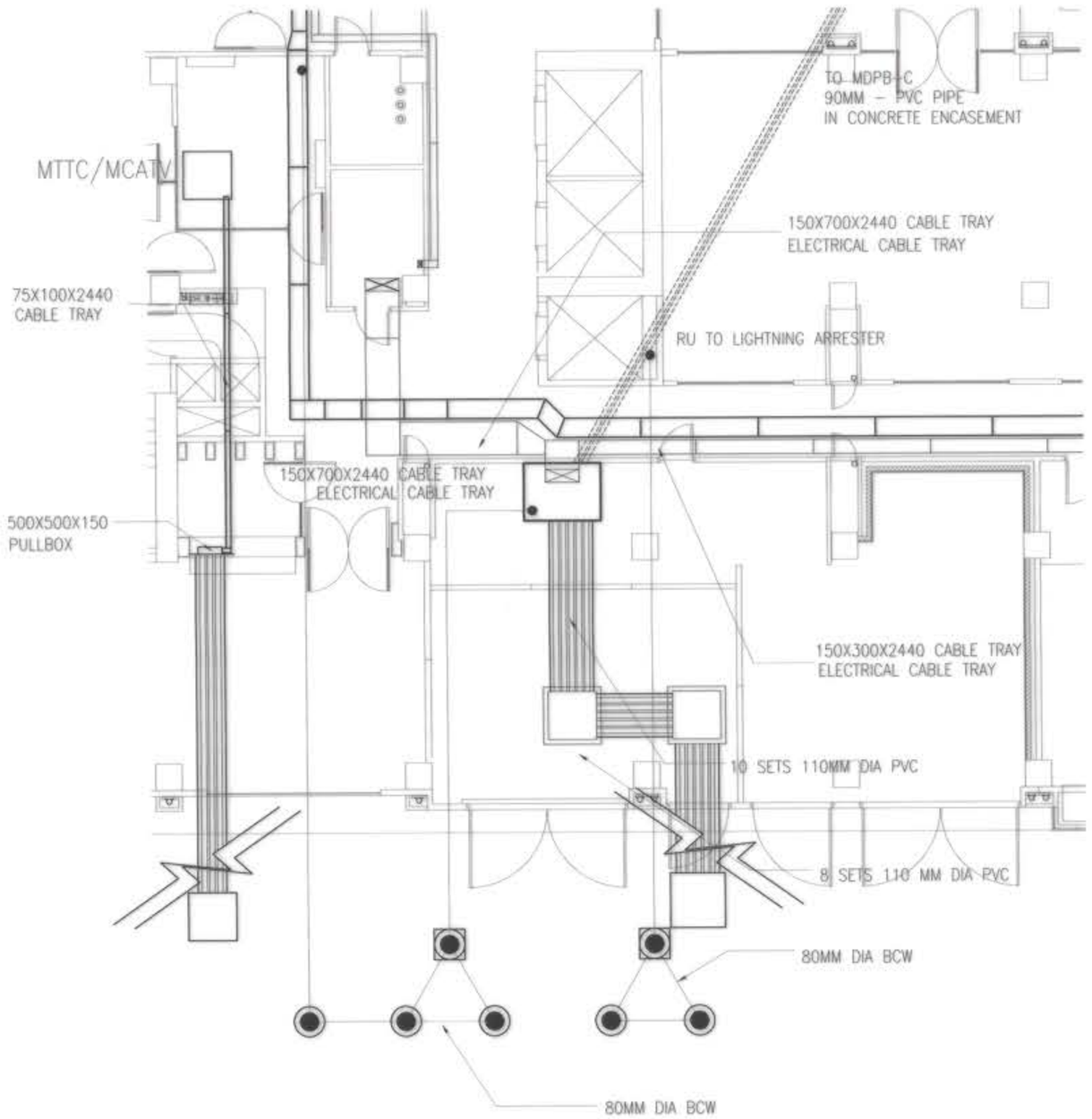


BUILDING A

BUILDING B

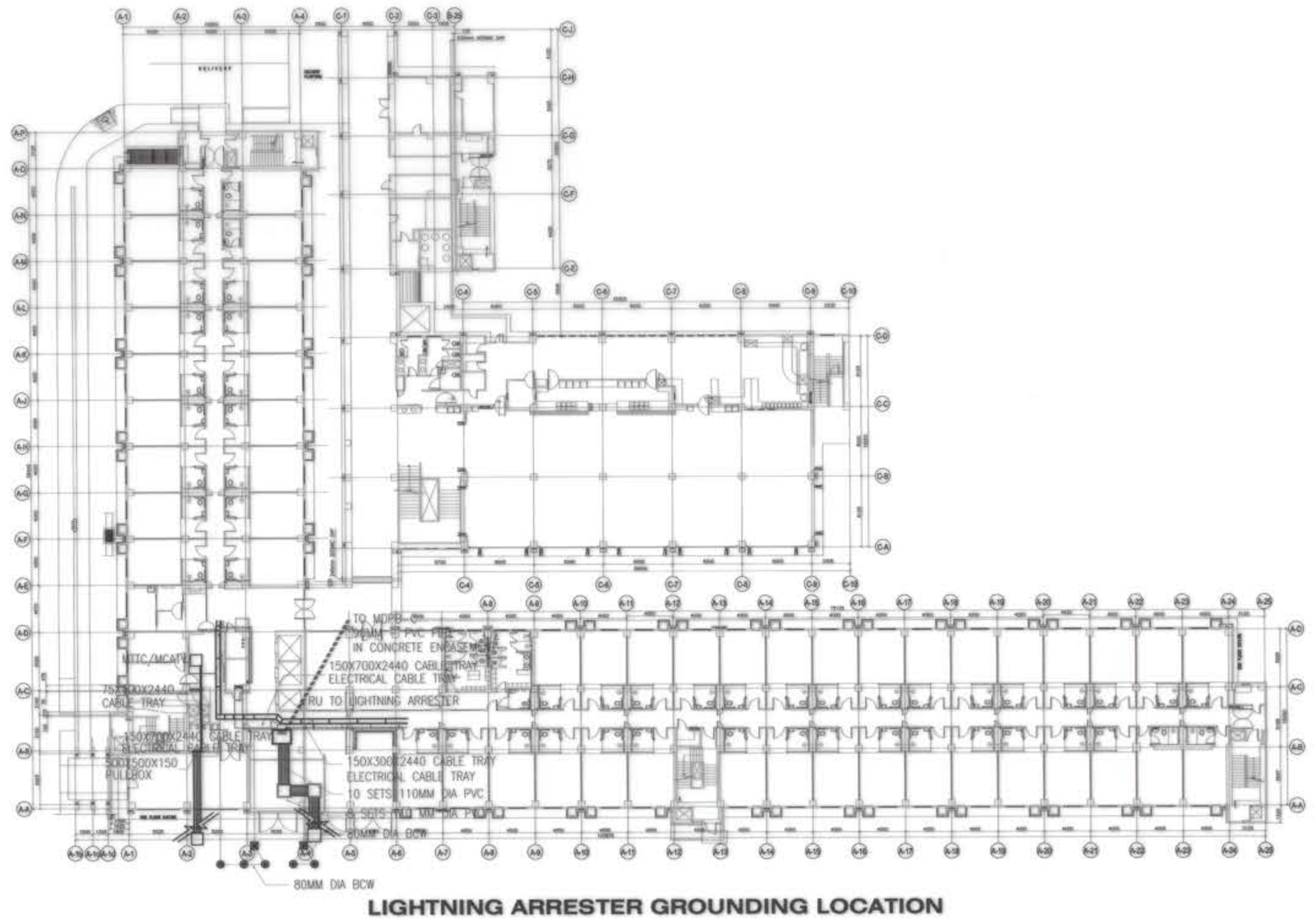
1 E-49 **POWER SINGLE LINE DIAGRAM**
SCALE NTS

OWNER : NGAC PHASE I JV COMPANY	PREPARED BY:	REVIEWED AND VALIDATED BY:	SUBMITTED BY:	CERTIFIED BY: INDEPENDENT CONSULTANT	PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
BCDA AND MTD Clark Inc.	FREY-FIL CORPORATION	FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants	BANDAR HEBAT BUILDERS, INC.	TCGI ENGINEERS	AS-BUILT DRAWING	BUILDING "B"	E-49
VIVENCIO B. DIZON, PRESIDENT	ZOILO S. DELA CRUZ, VICE PRESIDENT-OPERATION	ALFREDO R. REVILLA, PROJECT MANAGER	ISAAC S. DAVID, PRESIDENT	VIRGILIO A. MADRAZO, PRESIDENT/CEO	NGAC PHASE 1A ATHLETES VILLAGE - BUILDING B ELECTRICAL	POWER SINGLE LINE DIAGRAM	
PATRICK NICHOLAS P. DAVID, PRESIDENT	REG No.: 0022657 PTR No.: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.30.2019				New Clark City, Capas, Tarlac		

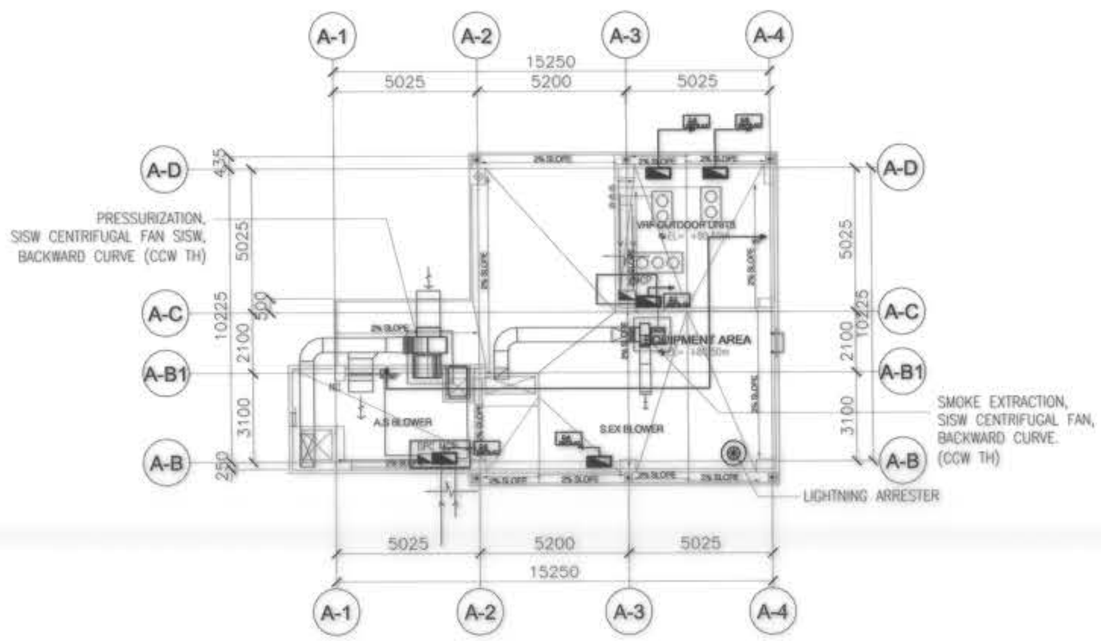


Grounding well

Grounding rod , 20mm x3000mm long



LIGHTNING ARRESTER GROUNDING LOCATION



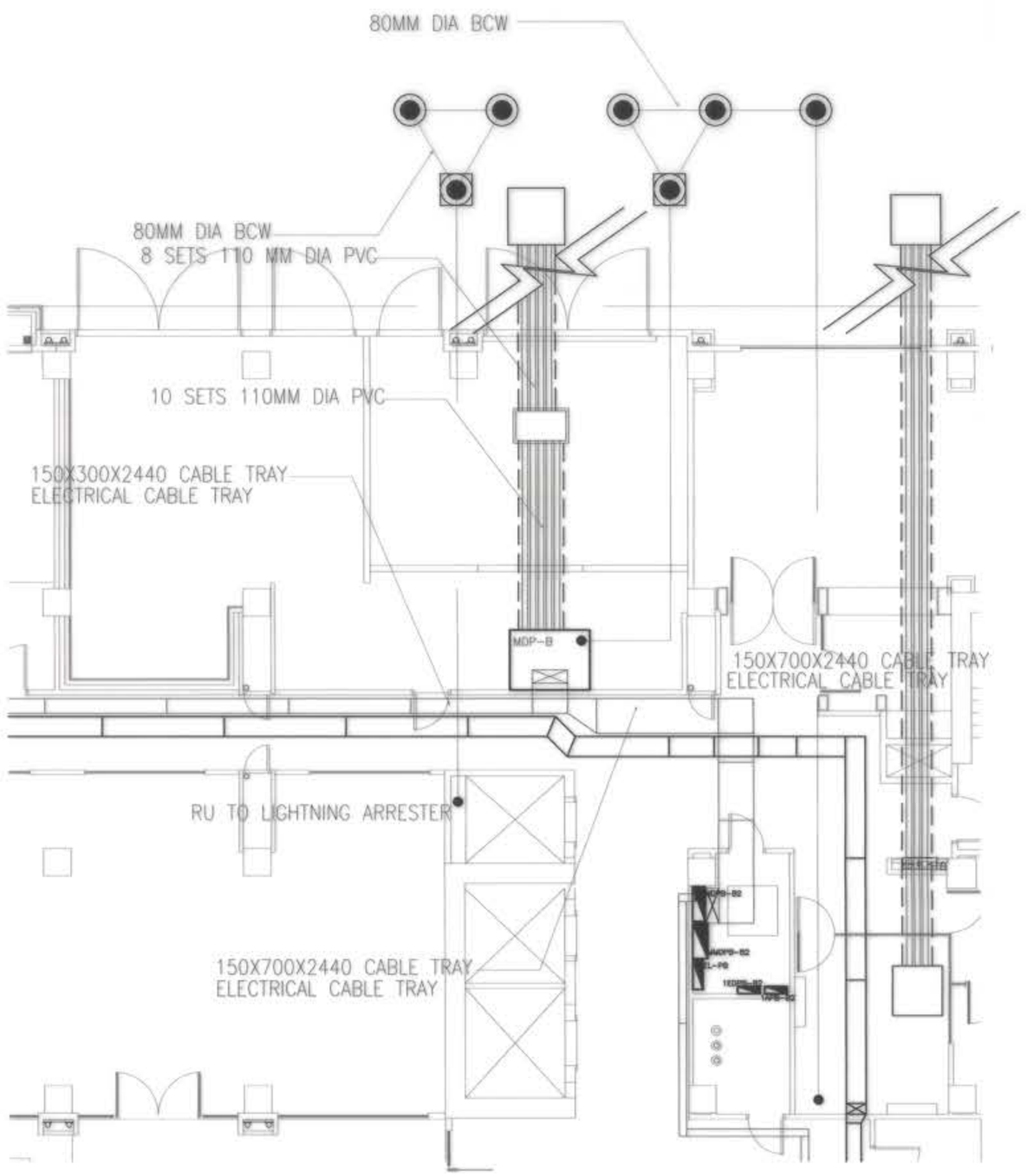
LIGHTNING ARRESTER LOCATION

BUILDING A

1 / E-50 ELECTRICAL ROOM GROUNDING LAYOUT

SCALE NTS

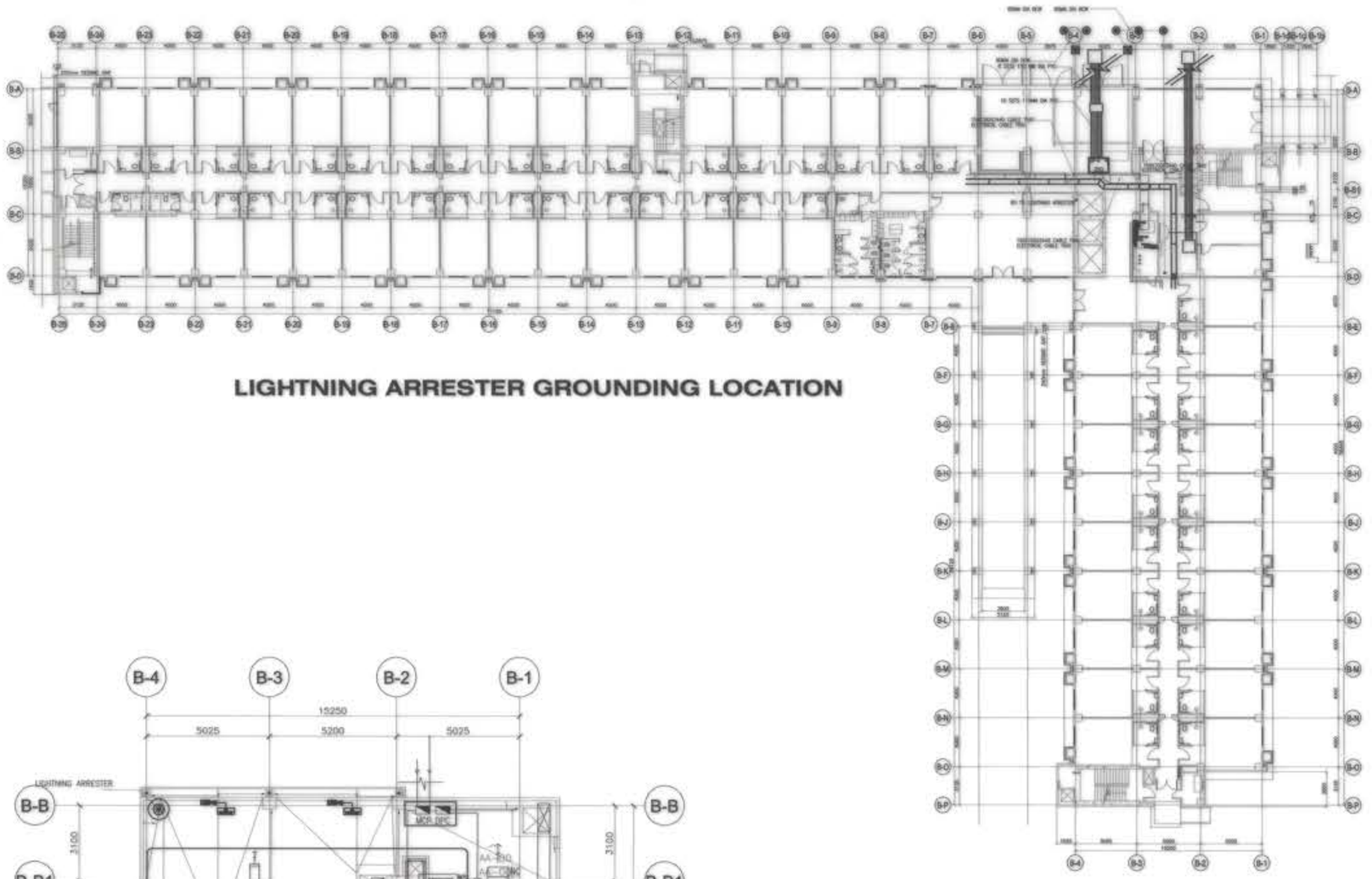
OWNER : NGAC PHASE I JV COMPANY BCDA AND NTC VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT / OPERATION REG No.: 0022857 PTR No.: 8118498 TIN No.: 118-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO B. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - BUILDING A ELECTRICAL New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "A" ELECTRICAL ROOM GROUNDING LAYOUT	SHEET NO. E-50
---	---	---	---	---	---	---	---



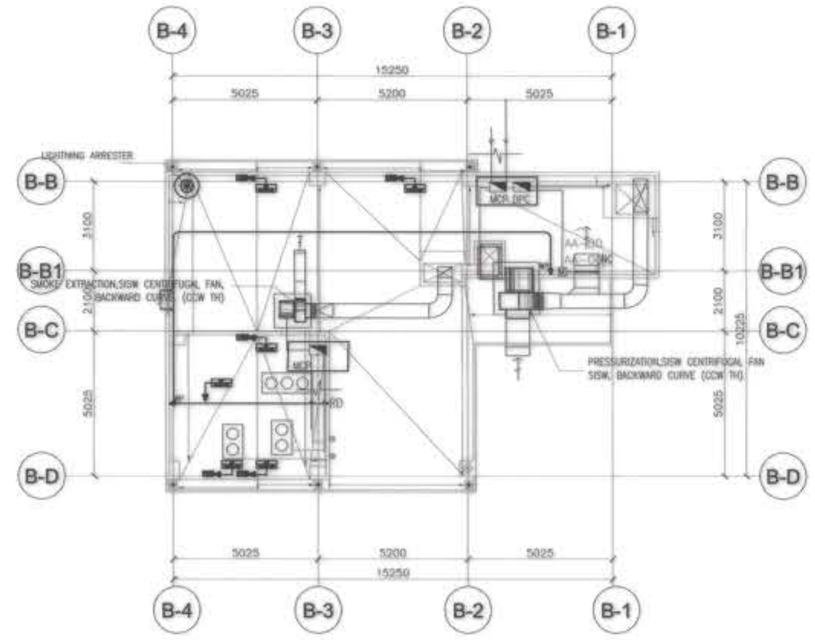
Grounding well

Grounding rod , 20mm x3000mm long

BUILDING B
1 / E-51 **ELECTRICAL ROOM GROUNDING LAYOUT**
SCALE NTS

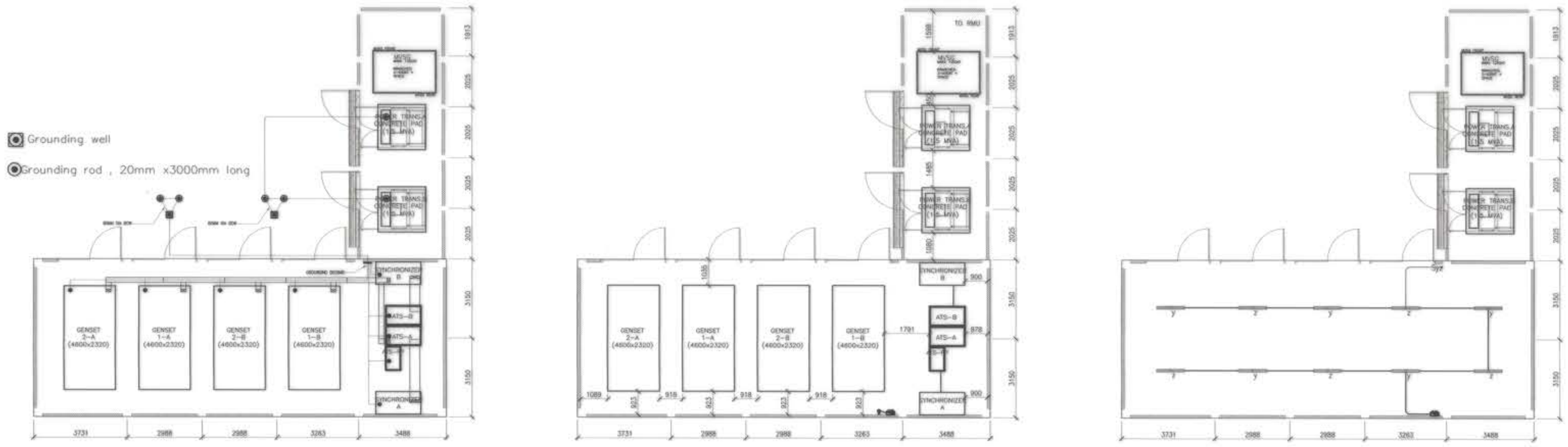


LIGHTNING ARRESTER GROUNDING LOCATION

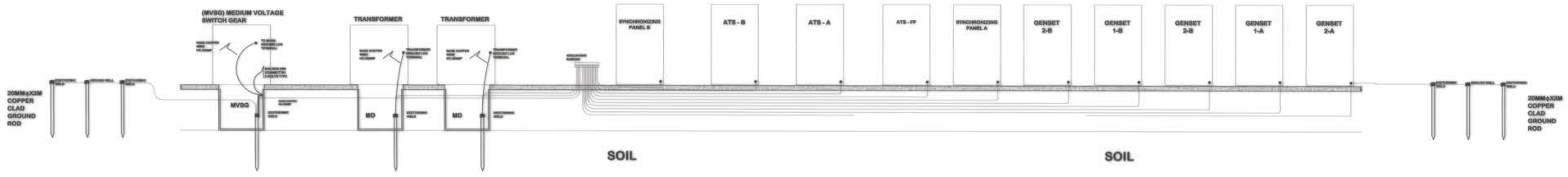


LIGHTNING ARRESTER LOCATION

OWNER : NGAC PHASE I JV COMPANY BCDA Bases Conversion and Development Authority AND MTD Group VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT--OPERATION REG No.: 0022657 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MAKATI DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - (ELECTRICAL) New Clark City, Capas, Tarlac	SHEET CONTENTS: BUILDING "B" ELECTRICAL ROOM GROUNDING LAYOUT	SHEET NO. E-51

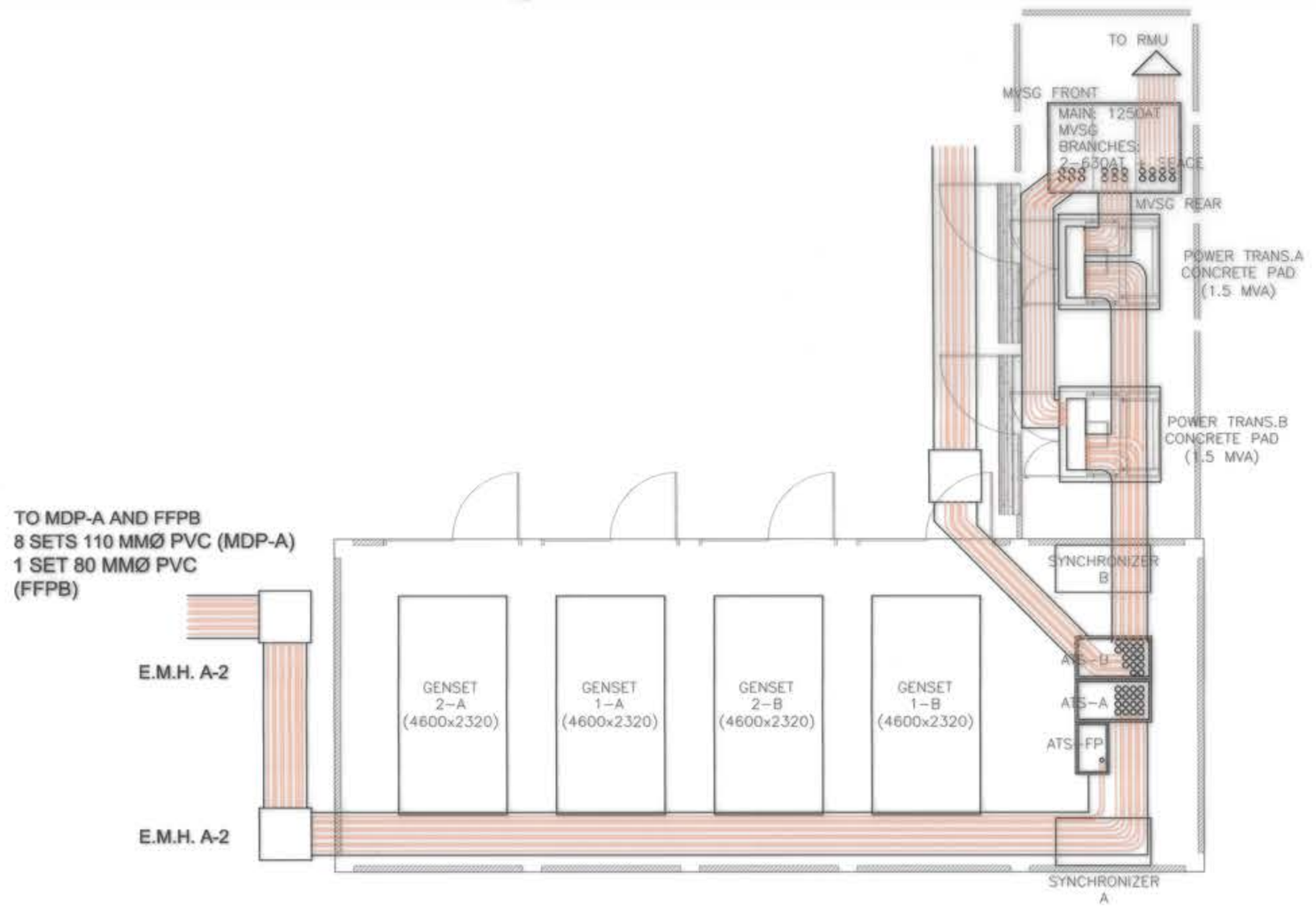


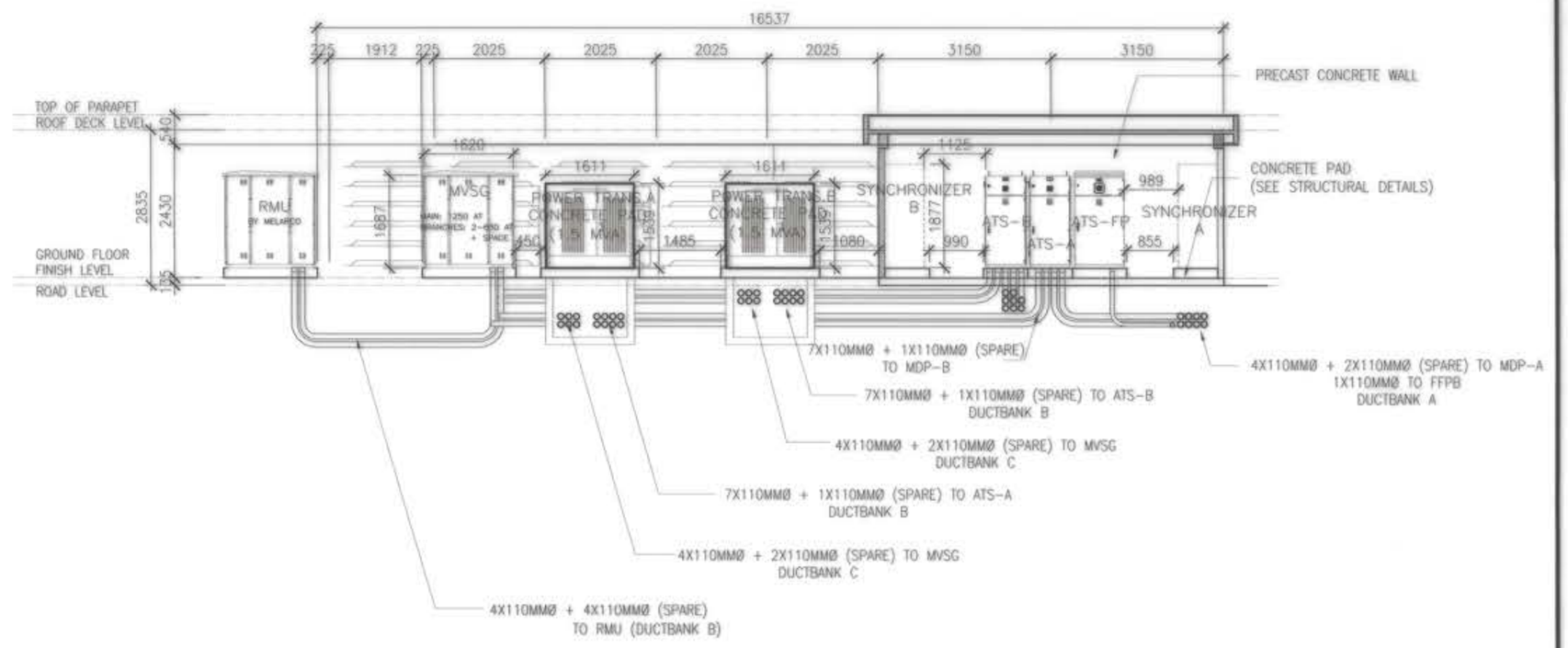
POWERHOUSE CABLE TRAY, GROUNDING LAYOUT, LIGHTING LAYOUT AND POWER LAYOUT

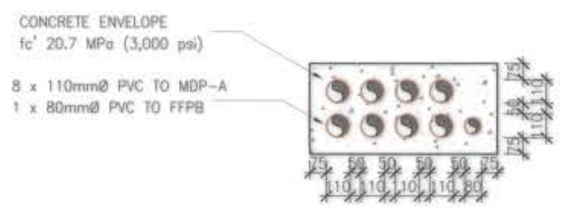


1 E-52 POWERHOUSE
POWERHOUSE CABLE TRAY, GROUNDING LAYOUT, LIGHTING LAYOUT AND POWER LAYOUT
SCALE NTS

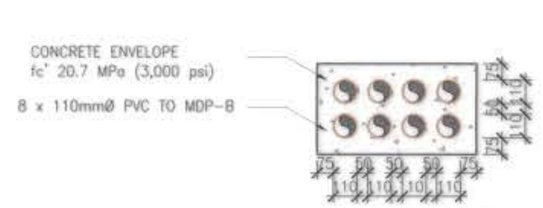
OWNER : NGAC PHASE I JV COMPANY BCDA AND MTD Clark Inc. VIVENCIO B. DIZON, PRESIDENT / PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT–OPERATION REG No.: 0022657 PTR No: 5118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.30.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - (ELECTRICAL) New Clark City, Capas, Tarlac	SHEET CONTENTS: POWERHOUSE LIGHTING LAYOUT, POWER LAYOUT CABLE TRAY AND GROUNDING LAYOUT	SHEET NO. E-52



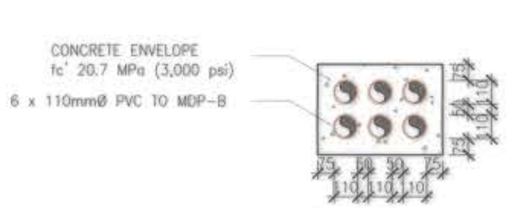




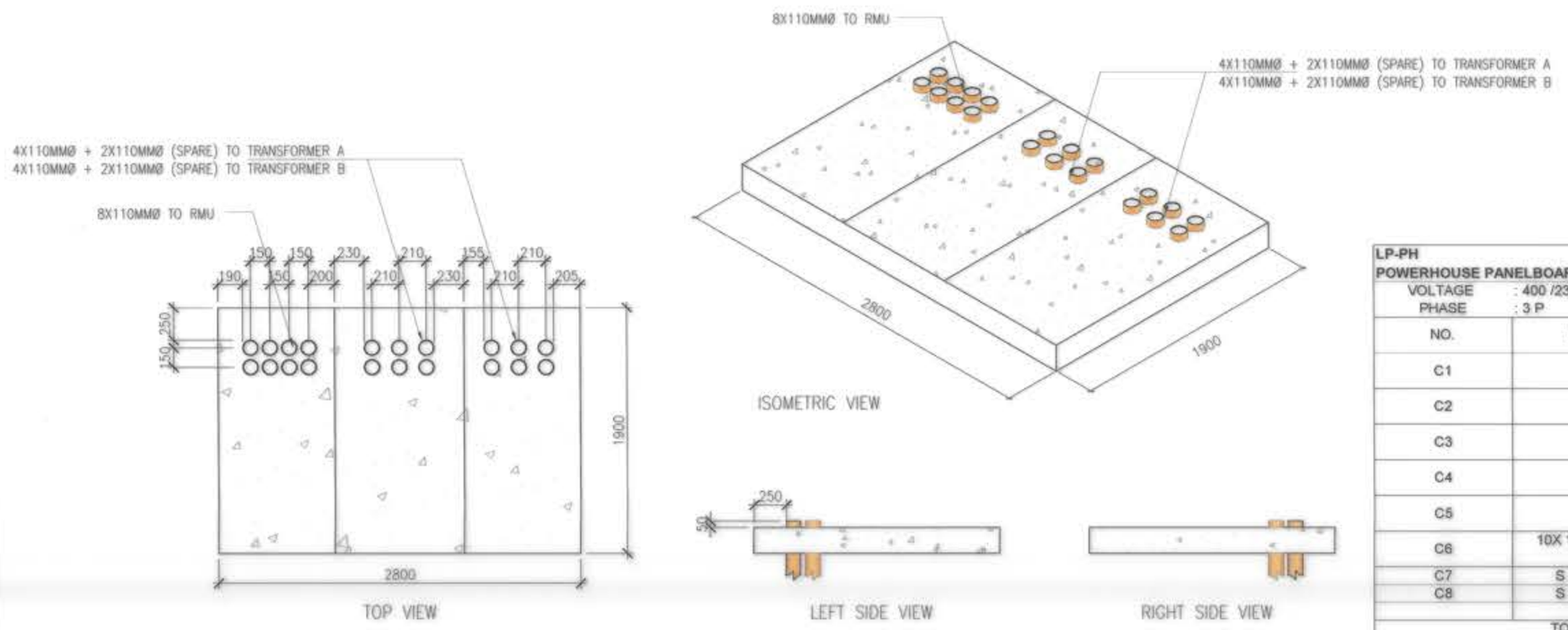
DUCTBANK A
DETAILS



DUCTBANK B
DETAILS



DUCTBANK C
DETAILS



LP-PH
POWERHOUSE PANELBOARD

VOLTAGE : 400 /230 — WIRES : 3 + G — MAIN FEEDER: 4 - 14mm2 THHN 8.0 mm2 GND mm CABLE TRAY
PHASE : 3 P — FREQ. 60 HZ — MAIN BREAKER : 70AT, 100AF, 3P + N, 30 KAIC, 400V, M

NO.	LOAD DESCRIPTION	LOAD	AMPS PER PHASE AN	BN	CN	3ø	CKT. BREAKER P	A.F	A.T	KAIC	WIRE & GND. (mm 2) THHN/THWN	CONDUIT MM DIA.
C1	500 VA OUTLET	500	0.72				1	100	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	CABLE TRAY
C2	3HP EXHAUST FAN		17.00				1	100	30	10	2-5.5mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	CABLE TRAY
C3	3HP EXHAUST FAN			17.00		-	1	100	30	10	2-5.5mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	CABLE TRAY
C4	3HP EXHAUST FAN			17.00			1	100	30	10	2-5.5mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	CABLE TRAY
C5	3HP EXHAUST FAN				17.00		1	100	30	10	2-5.5mm² THHN WIRE 1-3.5mm² TW GRD. WIRE (GREEN)	CABLE TRAY
C6	10X 1200MM T5 TUBULAR LED LIGHT WITH CASE	240			0.35		1	100	20	10	2-3.5mm² THHN WIRE 1-2.0mm² TW GRD. WIRE (GREEN)	CABLE TRAY
C7	S P A R E											
C8	S P A R E											
	TOTAL =	740	17.72	34.00	17.35	-						

TOTAL CONNECTED LOAD:
IFL = 17 (0.25) + 34
= 38.25 A
OVER CURRENT PROTECTION: SOFT START
IFL = 17 (1.5) + 34
= 59.50

POWERHOUSE
TRANSFORMER LAYOUT, SECTION DETAILS AND LOAD SCHEDULE
1 / E-53 SCALE NTS

OWNER : NGAC PHASE I JV COMPANY
BCDA — VIVENCIO B. DIZON, PRESIDENT
AND
MTD Clark — PATRICK NICHOLAS P. DAVID, PRESIDENT

PREPARED BY:
FREY-FIL CORPORATION
MANILA - DAVAO - CEBU - ILOILO
ZOILO S. DELA CRUZ
VICE PRESIDENT—OPERATION
REG No.: 0022957 — PTR No: 5115498
TIN No.: 115-426-274 — PLACE: MANILA
DATE: 01.20.2019

REVIEWED AND VALIDATED BY:
FILIPINAS DRAVO CORPORATION
Architectural & Engineering Consultants
ALFREDO R. REVILLA, PROJECT MANAGER

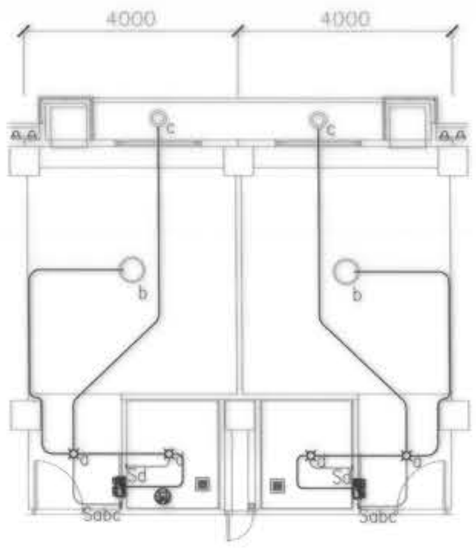
SUBMITTED BY:
BANDAR HEBAT BUILDERS, INC.
ISAAC S. DAVID, PRESIDENT

CERTIFIED BY: INDEPENDENT CONSULTANT
TCGI ENGINEERS
VIRGILIO A. MADRAZO, PRESIDENT/CEO

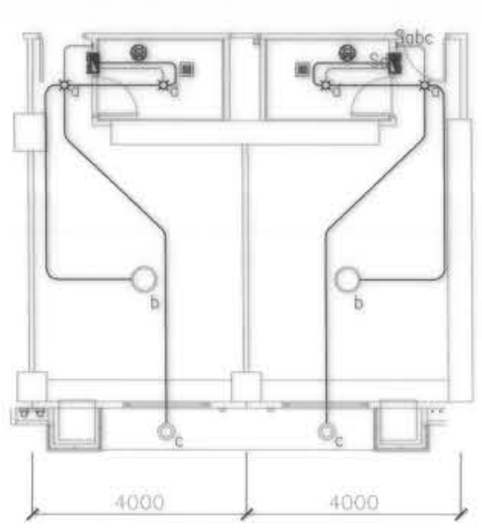
PROJECT TITLE:
AS-BUILT DRAWING
NGAC PHASE 1A
ATHLETES VILLAGE -
(ELECTRICAL)
New Clark City, Capas, Tarlac

SHEET CONTENTS:
POWERHOUSE TRANSFORMER LAYOUT SECTION
DETAILS AND LOAD SCHEDULE

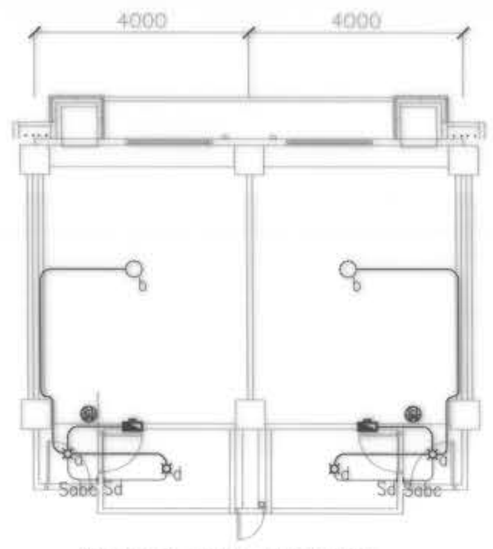
SHEET NO.
E-53



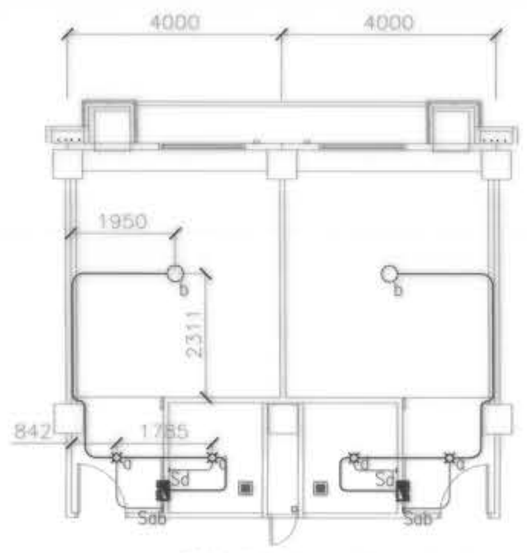
HANDICAPPED STUDIO UNIT LIGHTING LAYOUT GROUND FLOOR



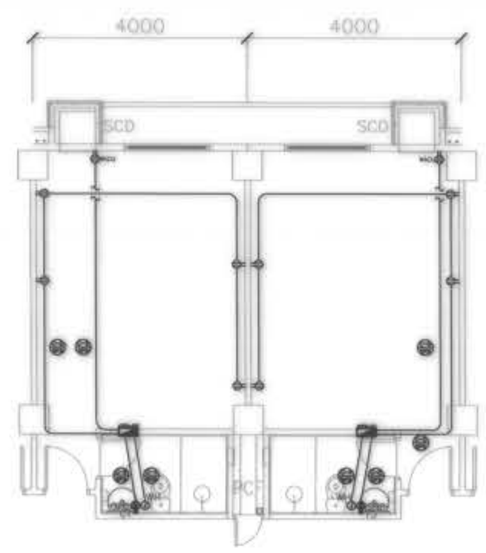
STUDIO UNIT LIGHTING LAYOUT GROUND FLOOR



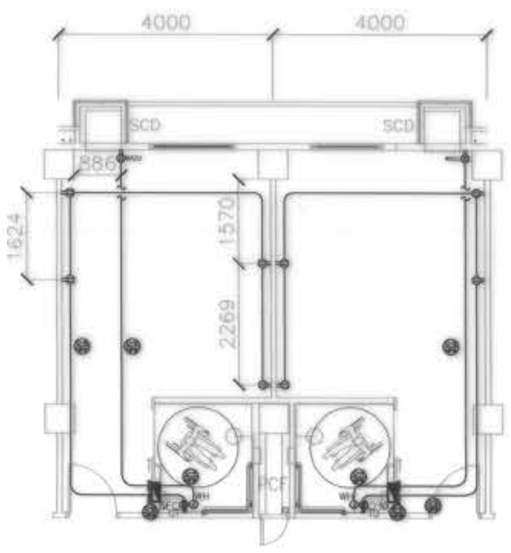
STUDIO UNIT LIGHTING LAYOUT THIRD FLOOR TYPICAL TO FIFTH FLOOR



HANDICAPPED UNIT LIGHTING LAYOUT SECOND FLOOR

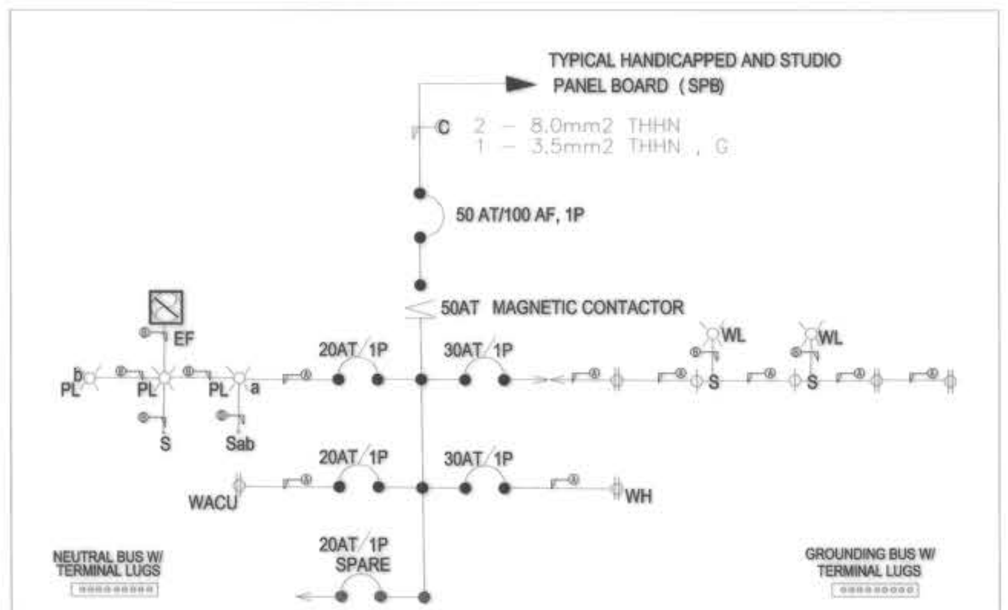


TYPICAL STUDIO UNIT POWER LAYOUT



TYPICAL HANDICAPPED STUDIO UNIT POWER LAYOUT

BLOW-UP PLANS FOR
STUDIO/HANDICAPPED UNIT
2 / E-54 SCALE NTS

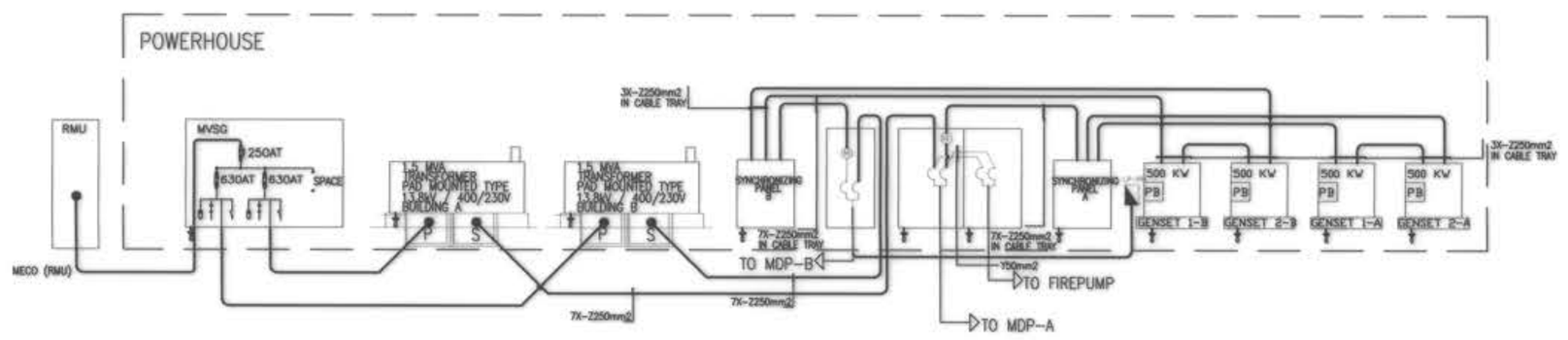


8 - WAYS ABS ENCLOSURE

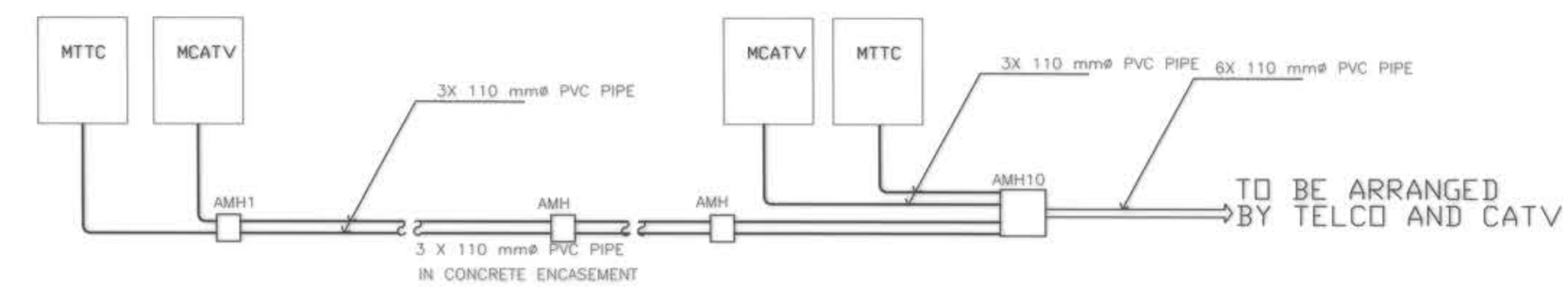
LEGEND:

	ELECTRICAL
A	2 – 3.5mm2 THHN 1 – 2.0mm2 THHN , G 20mm Pvc Pipe
B	2 – 2.0mm2 THHN 20mm Pvc Pipe
C	2 – 8.0mm2 THHN 1 – 3.5mm2 THHN , G 25mm Pvc Pipe

TYPICAL SCHEMATIC DIAGRAM FOR
STUDIO/HANDICAPPED UNIT PANEL BOARD
1 / E-54 SCALE NTS



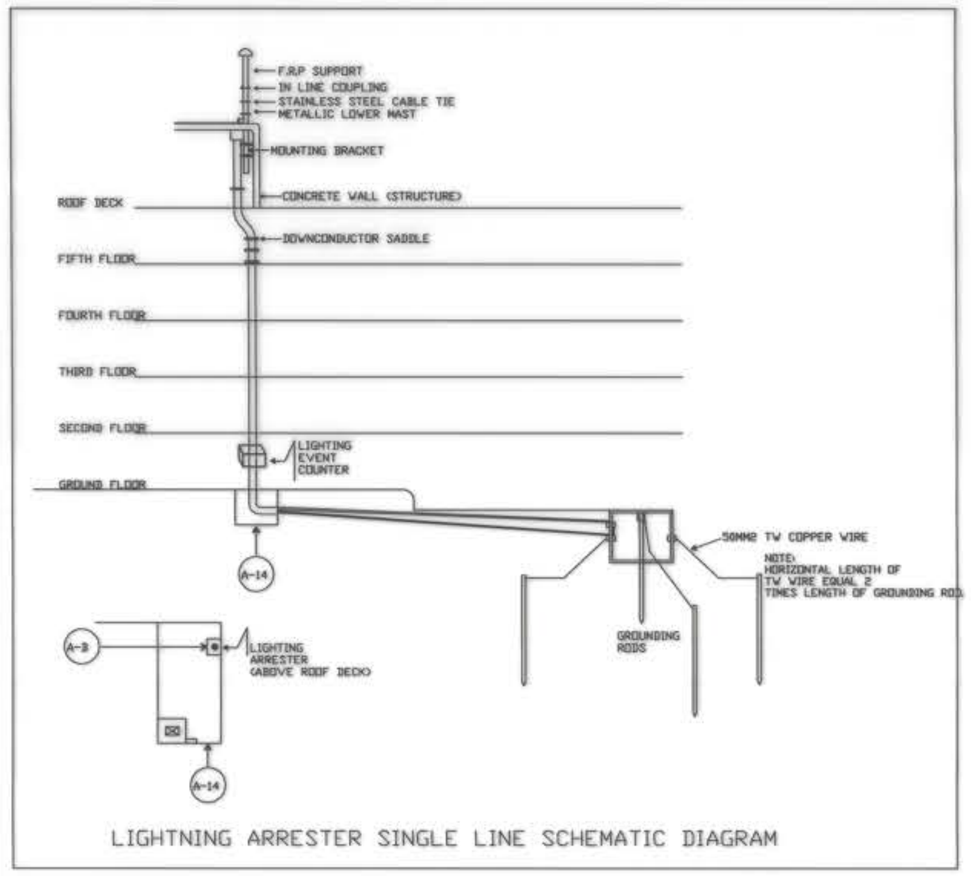
POWERHOUSE BLOW-UP SCHEMATIC DIAGRAM



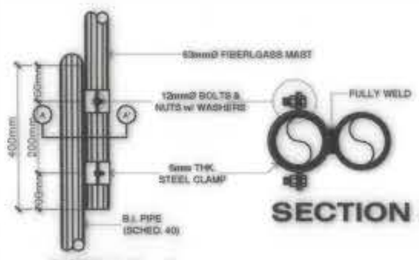
SINGLE LINE SCHEMATIC DIAGRAM FOR TELCO AND CATV

SINGLE LINE SCHEMATIC DIAGRAM
FOR ELECTRICAL, TELCO AND CATV
3 / E-54 SCALE NTS

OWNER : NGAC PHASE I JV COMPANY BCDA AND NTD Corporation VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION ZOILO S. DELA CRUZ, VICE PRESIDENT - OPERATION REG No.: 093857 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA, PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID, PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO, PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - (ELECTRICAL) New Clark City, Capas, Tarlac	SHEET CONTENTS: TYPICAL SCHEMATIC LINE DIAGRAM, BLOW UP PLANS FOR STUDIO/HANDICAPPED PANEL BOARD AND SINGLE LINE SCHEMATIC DIAGRAM FOR ELECTRICAL, TELCO AND CATV	SHEET NO. E-54

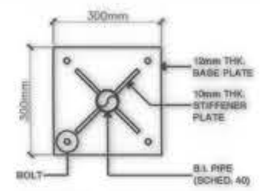


LIGHTNING ARRESTER SINGLE LINE SCHEMATIC DIAGRAM

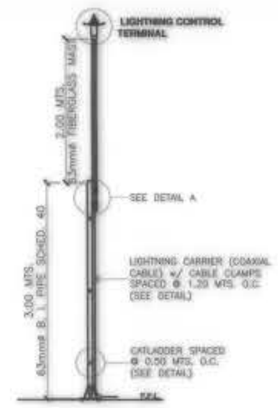


SECTION A-A'

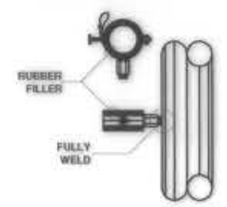
DETAIL A



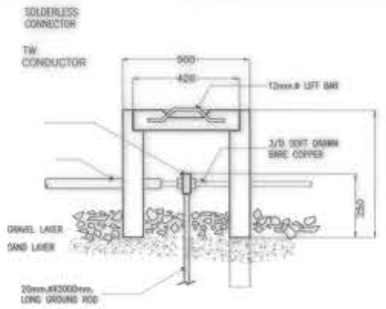
BASE PLATE DETAIL



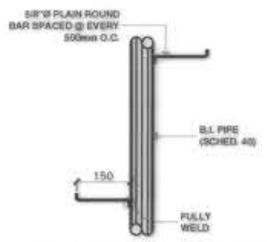
LIGHTNING CONTROL TERMINAL



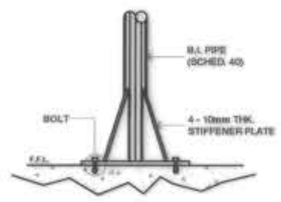
CLAMP DETAIL

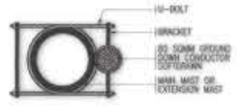


GROUND PIT DETAIL

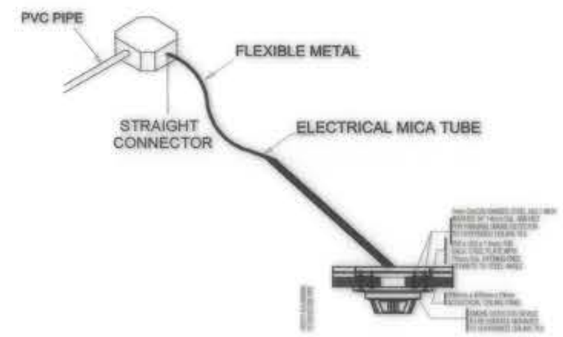


CAT LADDER DETAIL

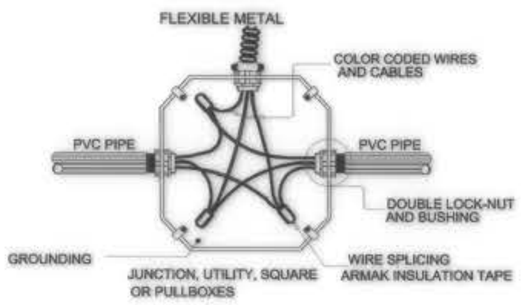




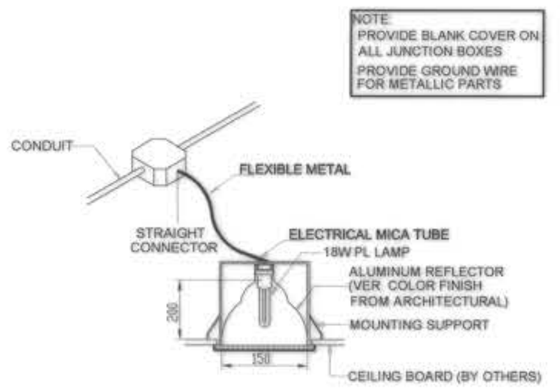
DOWN CONDUCTOR SUPPORT DETAILS



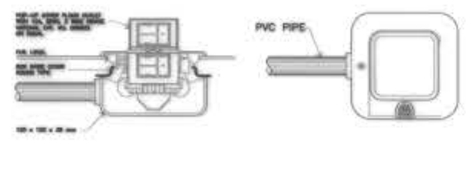
SMOKE DETECTOR MOUNTING DETAIL (TYPICAL TO SPEAKER AND CCTV)



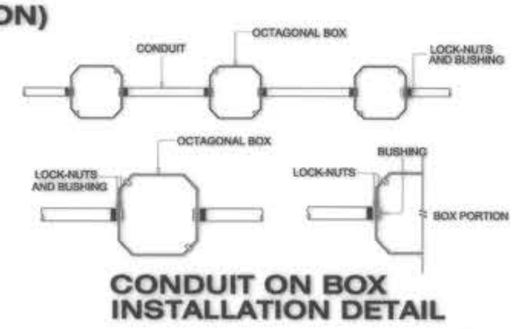
BOX CONNECTION DETAIL



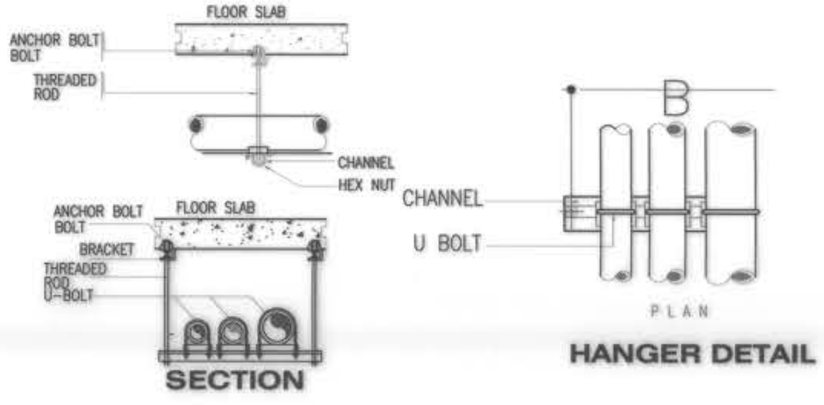
CONDUIT RUN FOR LIGHTING DISTRIBUTION (FOR EXPOSED OR INSIDE DROP-CEILING INSTALLATION)



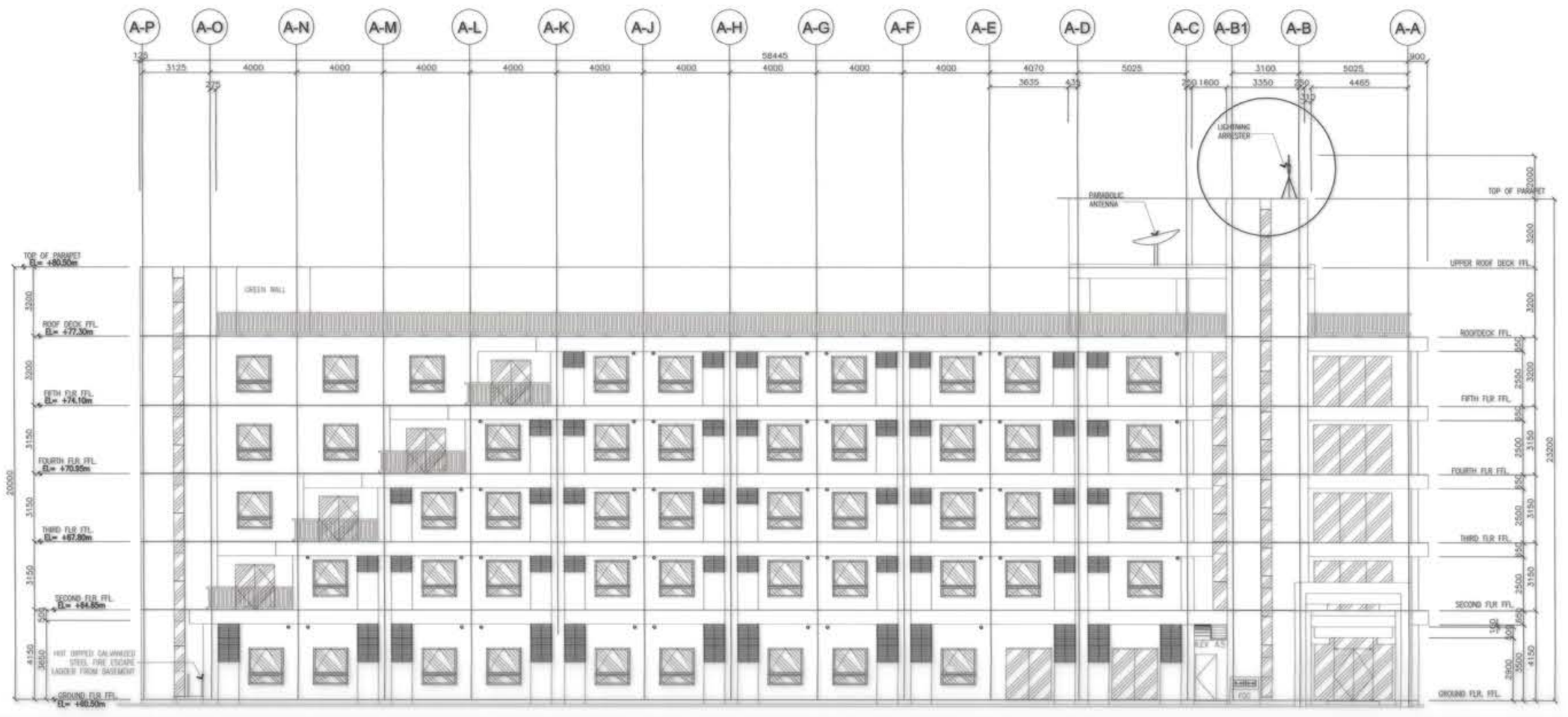
FLOOR POWER OUTLET DETAIL



CONDUIT ON BOX INSTALLATION DETAIL



HANGER DETAIL

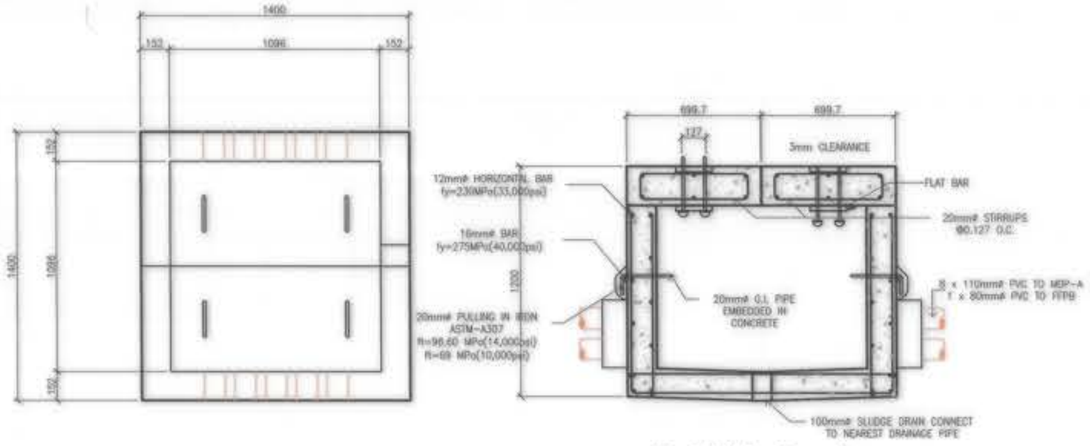


1 E-55 LIGHTNING ARRESTER DETAILS
SCALE NTS

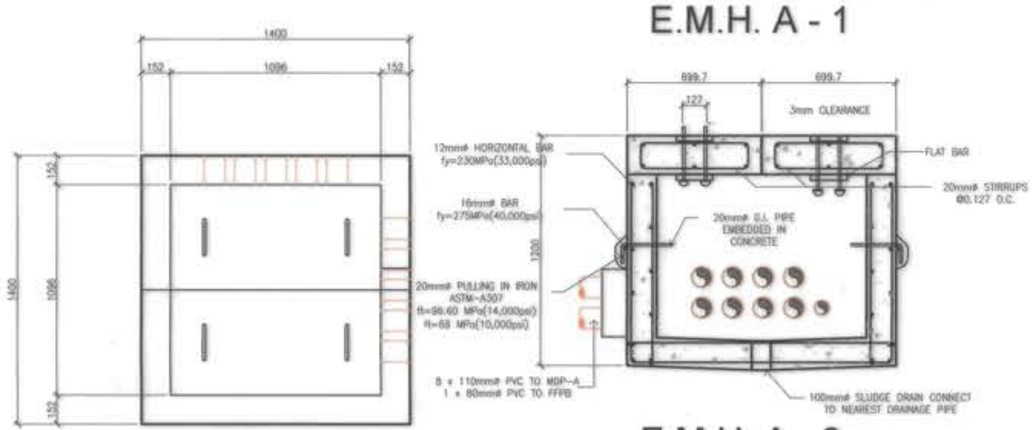
2 E-55 MISCELLANEOUS DETAILS
SCALE NTS

OWNER : NGAC PHASE I JV COMPANY BCDA and MTD Clark, Inc. VIVENCIO B. DIZON, PRESIDENT PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT--OPERATION REG No.: 092657 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2018	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT	CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO

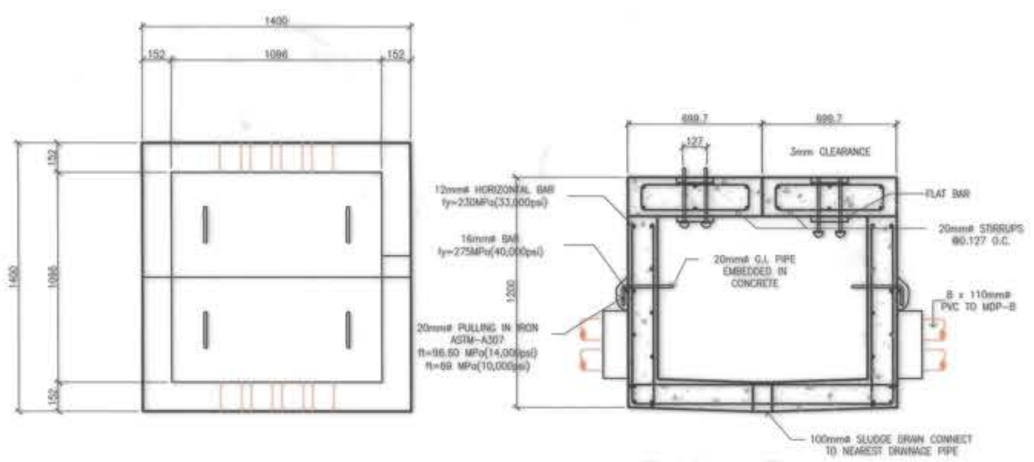
PROJECT TITLE:	SHEET CONTENTS:	SHEET NO.
AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - (ELECTRICAL) New Clark City, Capas, Tarlac	LIGHTNING ARRESTER AND MISCELLANEOUS DETAILS	E-55



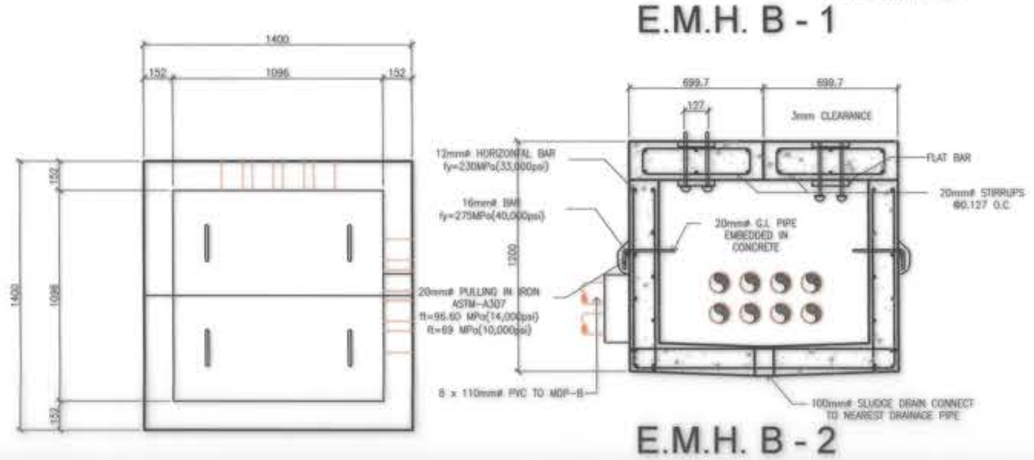
E.M.H. A - 1



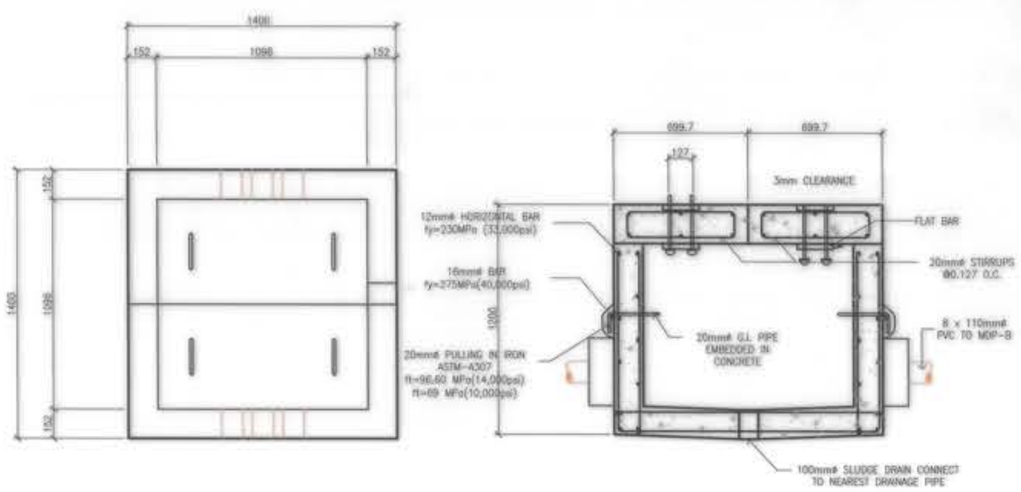
E.M.H. A - 2

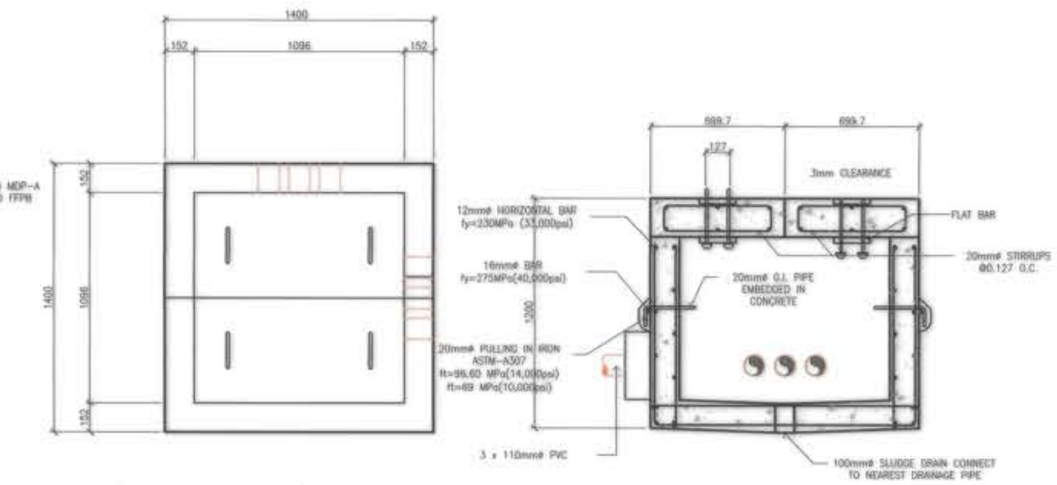


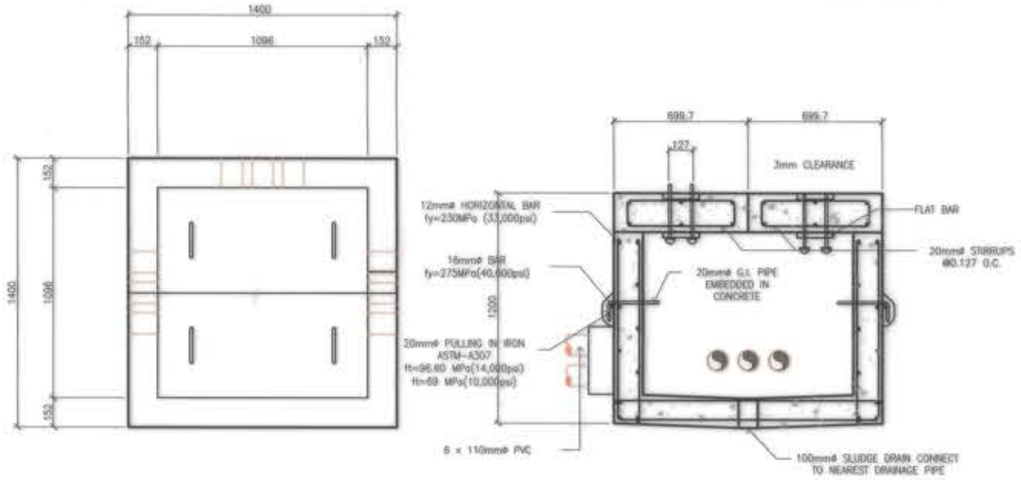
E.M.H. B - 1



E.M.H. B - 2



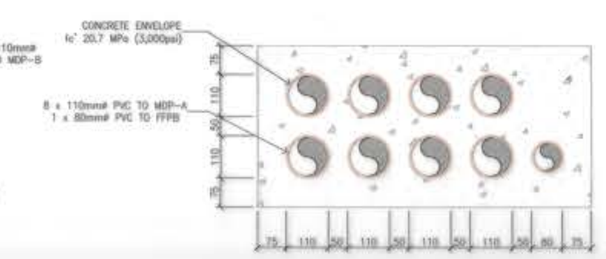




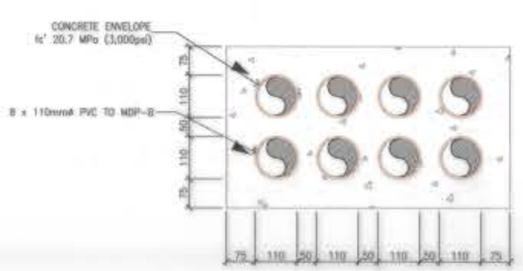
3 E-56 **AUXILIARY MANHOLE DETAILS** SCALE NTS

2 E-56 **ELECTRICAL MANHOLE DETAILS** SCALE NTS

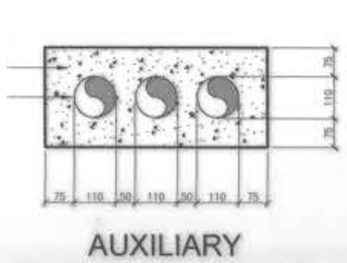
1 E-56 **MANHOLE DETAILS** SCALE NTS



DUCTBANK A DETAILS



DUCTBANK B DETAILS



AUXILIARY DUCTBANK DETAILS

OWNER : NGAC PHASE I JV COMPANY BCDA Bases Conversion and Development Authority VIVENCIO B. DIZON, PRESIDENT AND MTD Clark, Inc. PATRICK NICHOLAS P. DAVID, PRESIDENT	PREPARED BY: FREY-FIL CORPORATION MANILA - DAVAO - CEBU - ILOILO ZOILO S. DELA CRUZ VICE PRESIDENT - OPERATION REG No.: 0022657 PTR No: 8118498 TIN No.: 116-426-274 PLACE: MANILA DATE: 01.20.2019	REVIEWED AND VALIDATED BY: FILIPINAS DRAVO CORPORATION Architectural & Engineering Consultants ALFREDO R. REVILLA PROJECT MANAGER	SUBMITTED BY: BANDAR HEBAT BUILDERS, INC. ISAAC S. DAVID PRESIDENT
CERTIFIED BY: INDEPENDENT CONSULTANT TCGI ENGINEERS VIRGILIO A. MADRAZO PRESIDENT/CEO	PROJECT TITLE: AS-BUILT DRAWING NGAC PHASE 1A ATHLETES VILLAGE - (ELECTRICAL) New Clark City, Capas, Tarlac	SHEET CONTENTS: MANHOLE DETAILS	SHEET NO. E-56