Employee Name: Jake Ryan Suzon Mallillin
Position: Automation Lead Engineer

"I am an Automation Engineer with hands-on experience in industrial automation systems, building automation, and home automation particularly in PLC-based motor control and multi system data integration projects."

Passion & Values

- Strong belief in solid fundamentals over memorization.
- Passionate about sharing practical knowledge with beginners.
- Values safety, clarity, and proper control logic design.
- Encourages a mindset of continuous learning in automation.

Expertise & Experiences

- Practical experience in PLC programming and motor control logic.
- Hands-on exposure to HMI & SCADA development, SCADA system monitoring, and BMS data mapping and monitoring systems.
- Involved in real automation projects including:

A. PLC-Based Motor Control Systems

- Design and implementation of Direct-On-Line, Star-Delta Control and Forward–Reverse Control. Integration of multiple switching methods for multiple directional controls.
- Motor protection logic using timers, interlocks, and fault stop conditions.

B. Siemens PLC Profibus/Profinet/Modbus Integration Projects

- Configuration of Siemens S7-1500 series and S7-1200 series with Profibus devices. Verification of control, status, and speed reference signals.

C. Power Meter Communication & Data Mapping

- Profibus integration of Carlo Gavazzi power meters. Decoding and mapping of multi-word input data. Scaling of electrical values (voltage, current, power) inside PLC logic.

D. HMI Development & Operator Interface

- Creation of basic HMI screens for motor control and monitoring. Implementation of Start/Stop commands, status indicators, and alarms. Operator-friendly screen layout for operation and troubleshooting.

E. SCADA & BMS System Monitoring Exposure

- Understanding of real-time monitoring concepts. Alarm handling and system status visualization. Linking PLC process data to higher-level monitoring systems.
- Multiple Servers and Clients PC interconnected with separate control and monitoring system.

F. Allen-Bradley PLC & FactoryTalk HMI Projects

- Programming of Allen-Bradley PLCs for basic machine and motor control logic.
- Development of operator interfaces using FactoryTalk Machine Edition.
- Implementation of motor control commands, status indication, and fault feedback. Basic PLC-to-HMI tag mapping and testing.

G. Schneider Modicon PLC System Projects

- Programming and I/O configuration of Modicon TM V2 and V3 Series PLC.
- Integration of digital and analog input and output modules.
- HMI operation using HMIDT series panels.

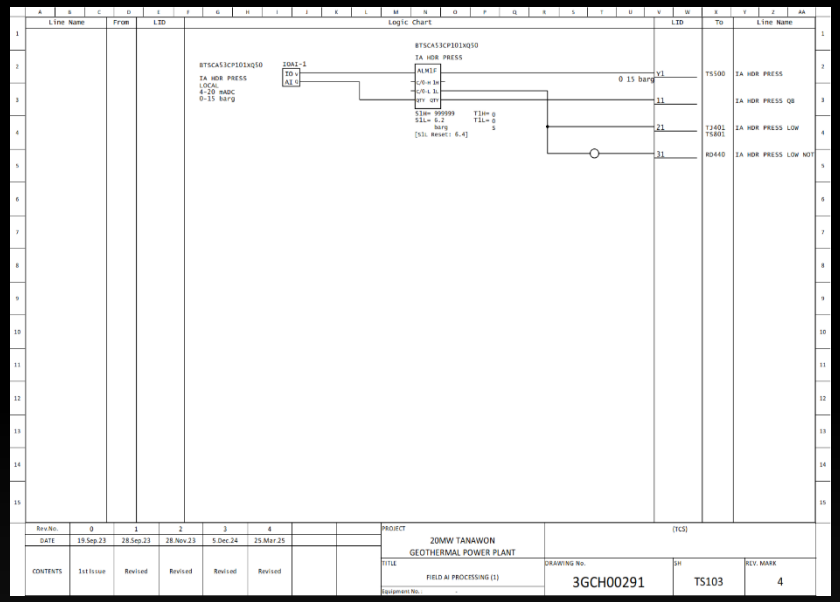
H. PLC–VFD Configuration & Industrial Communication

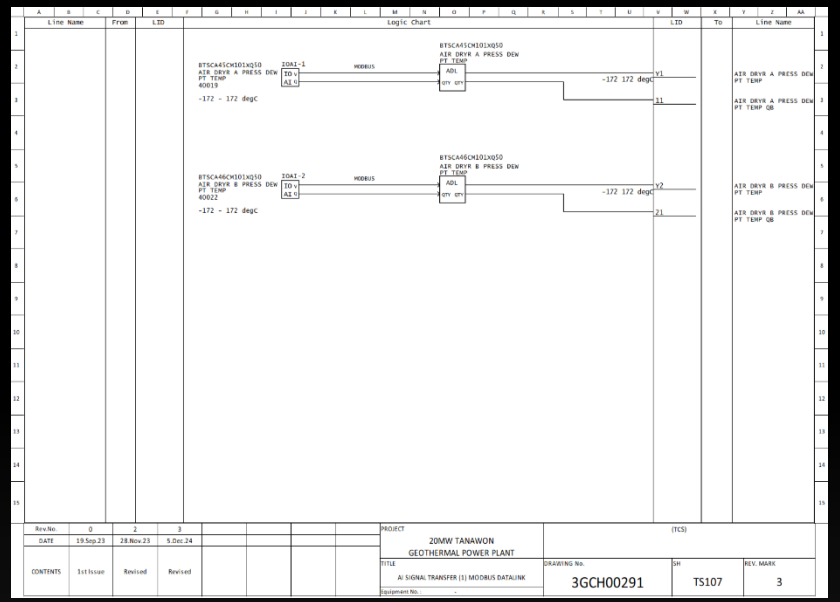
- **Vacoon VFD Integration (Profibus & Profinet)** = PLC communication setup using Profibus DP and Profinet, Configuration of drive parameters and network addressing, Mapping of control words, status words, and speed reference, Verification of motor operation, direction control, and fault feedback.
- **Danfoss VFD Integration (Profibus & Profinet)** = PLC-based control and monitoring of Danfoss drives, Assignment of cyclic data for run command, speed setpoint, and drive status, Fault monitoring and integration with motor interlock logic.
- **Altivar 320 VFD (Modbus TCP/IP)** = Configuration of Modbus TCP/IP communication between PLC and VFD, Writing of speed references and run commands via Modbus registers, Reading of operating status, fault bits, and feedback signals, Validation of reliable PLC–VFD communication during operation.
- **Fuji Electric FRENIC-Ace VFD** = Integration of FRENIC-Ace VFD using OPC-PDP3 Profibus communication card, Configuration of Profibus node address and parameter settings, PLC mapping of control commands, speed reference, and drive status, Testing of start/stop control, direction logic, and fault response via PLC, Verification of stable Profibus data exchange between PLC and VFD.
- **Siemens SINAMICS G120 & G220 VFD Integration** = PLC integration of SINAMICS G120 and G220 drives, Configuration of drive parameters for motor operation, Control of run command and speed reference from PLC, Monitoring of drive status, alarms, and fault conditions, Coordination of VFD logic with PLC motor safety and interlocks.
- **Gateway Devices** = Atlas Copco Electronicon, ADF Web Devices, Moxa Gateway Converter.
- **Communication Protocol Used** = Profinet, Profibus, Modbus TCP/IP, Modbus BACnet/IP, OmniCon GEA.

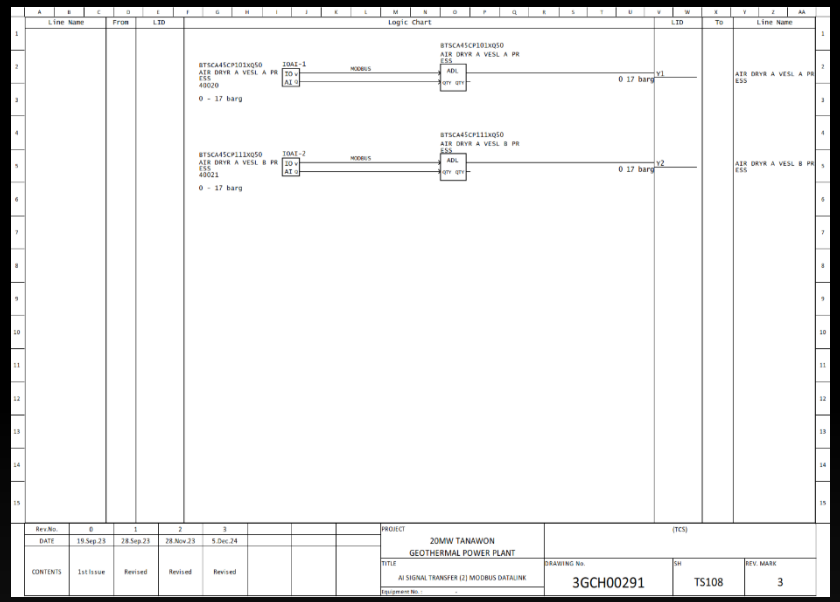
I. Project Documentation & As-Built Preparation

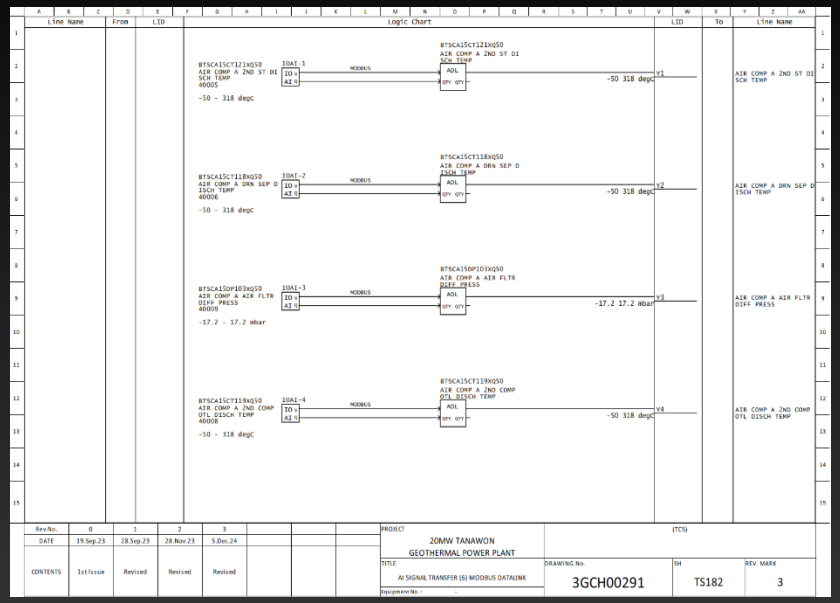
- Preparation of AS-built Shop Drawing Design, PLC diagram and Control System documentation.
- Communication settings, signal mapping, Control Philosophy and Sequence Operation.
- Structured documentation for maintenance and future upgrades references.

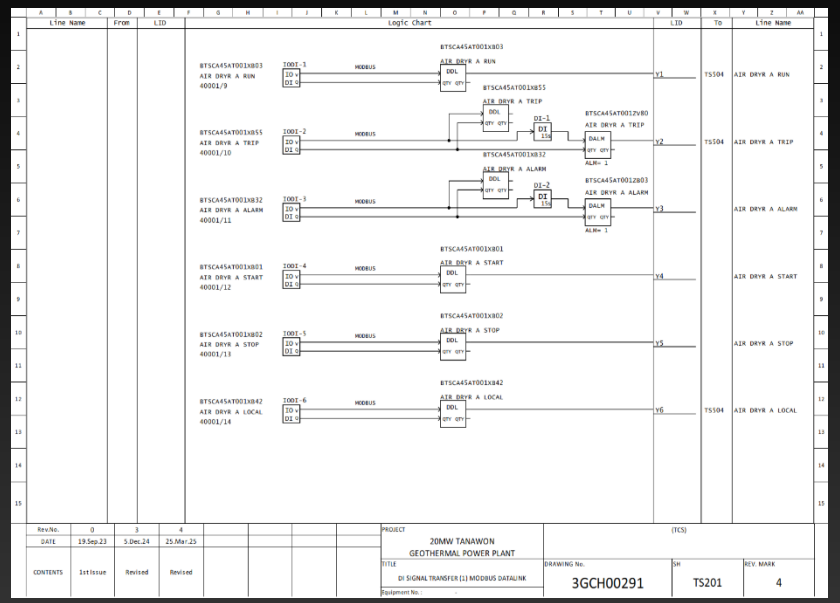
Sample Approved PLC & MCC Control Panel Designs & Diagrams

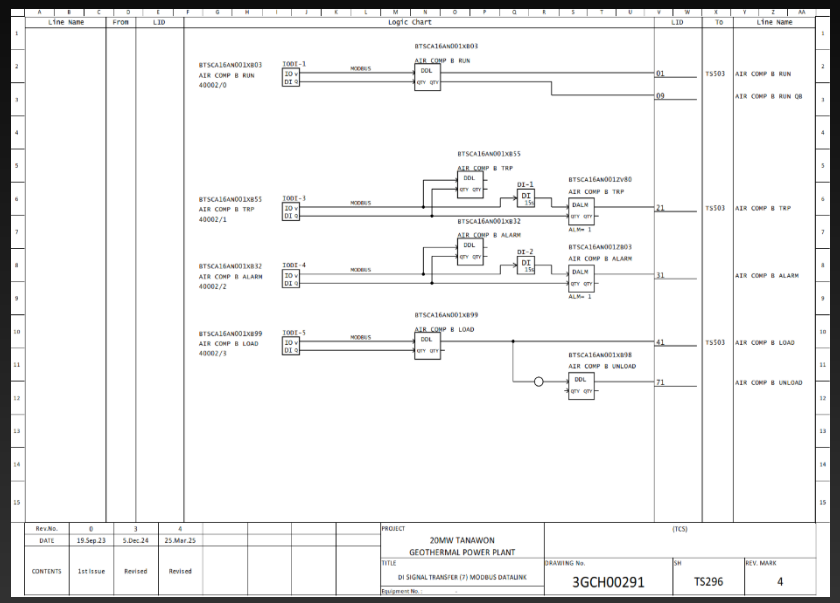












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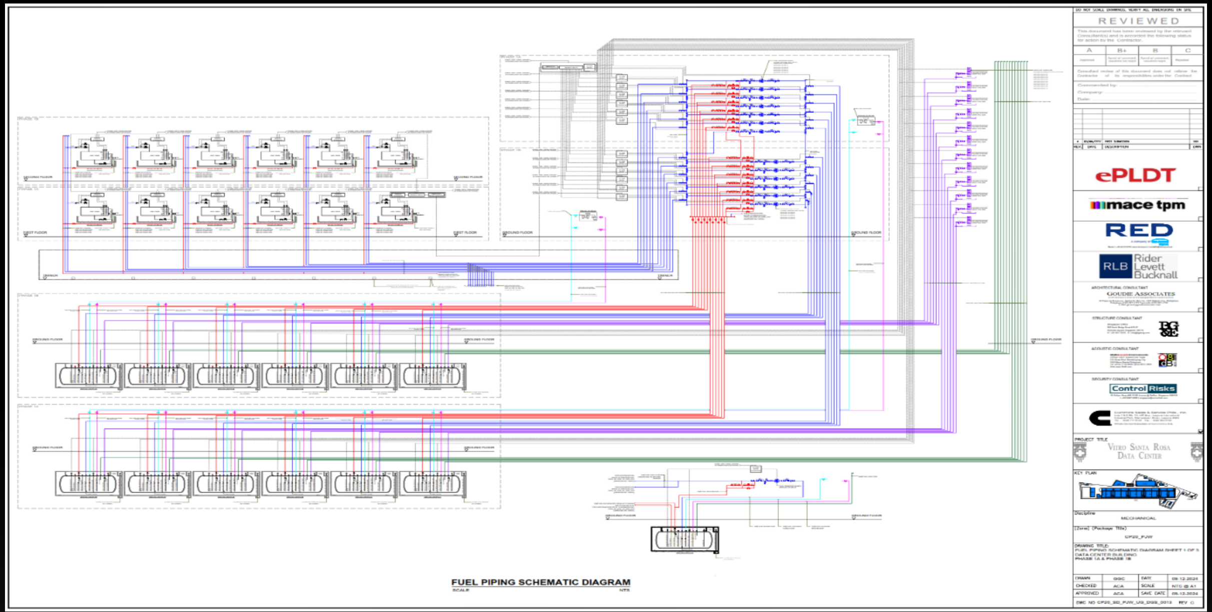

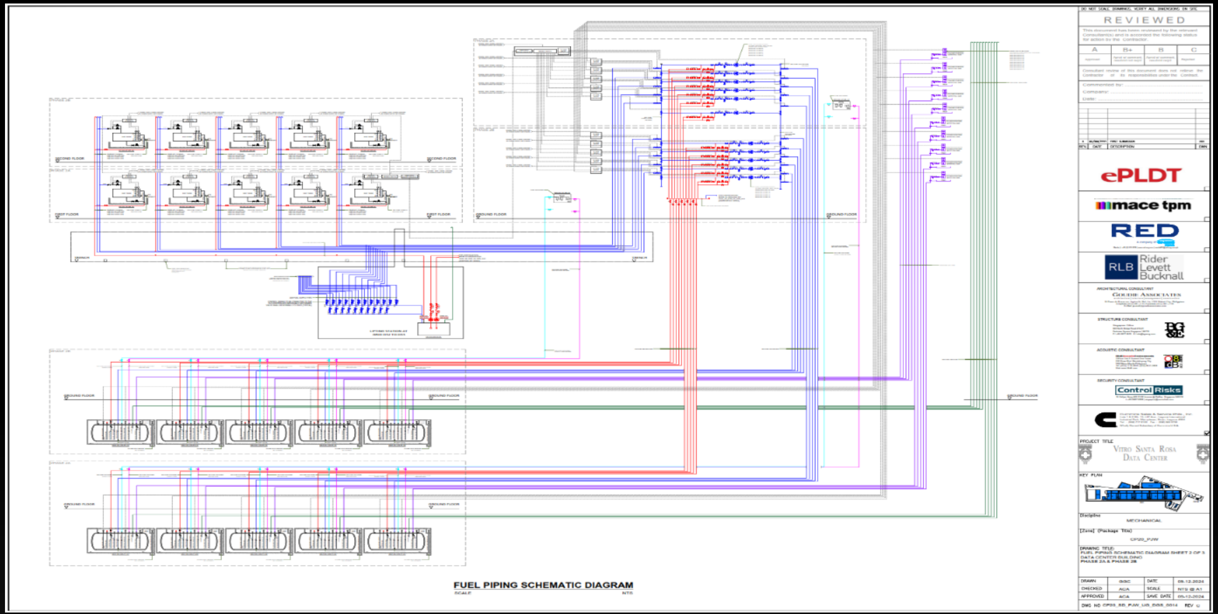

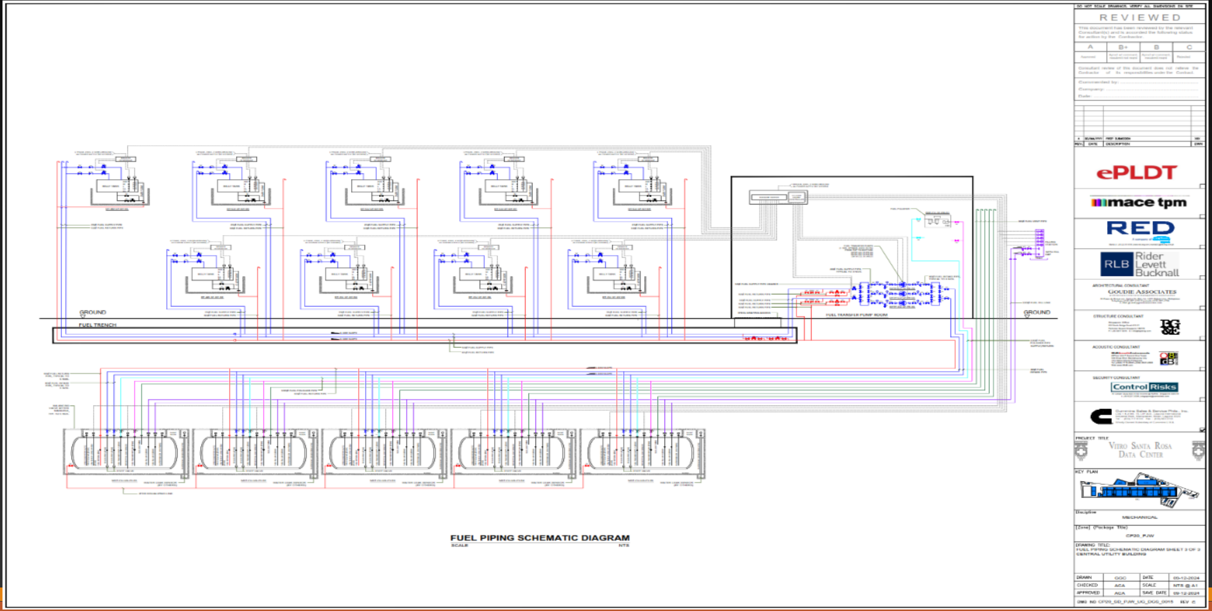

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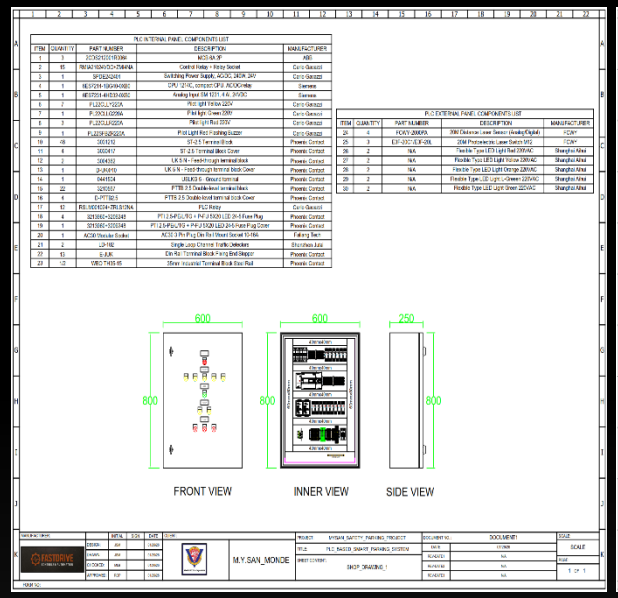

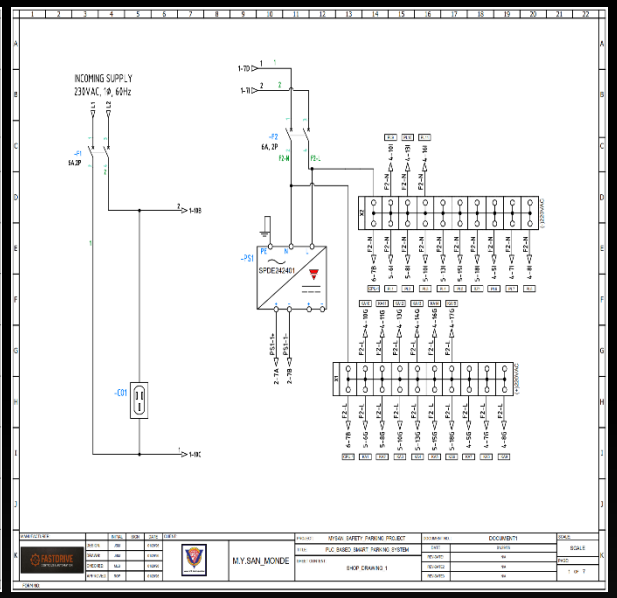

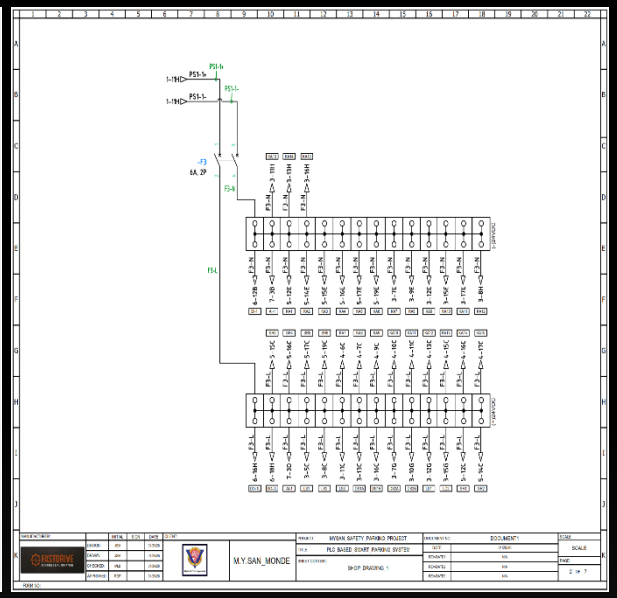

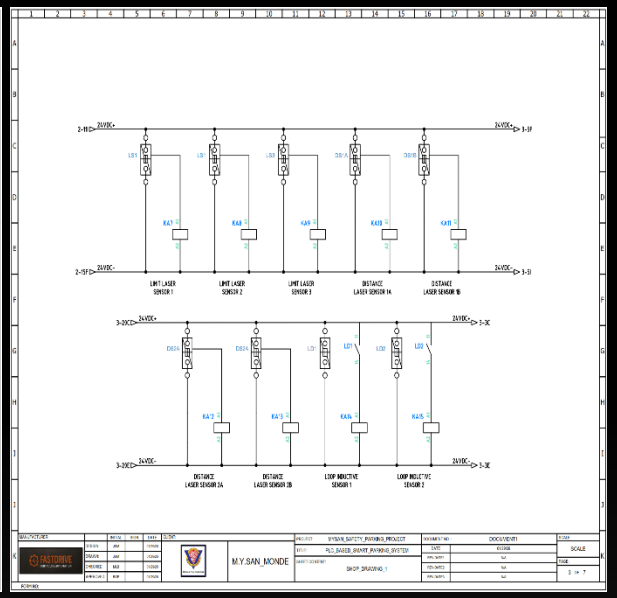

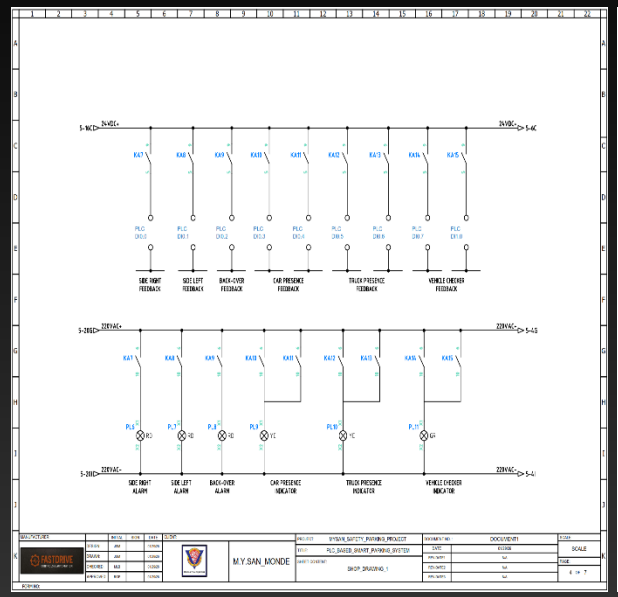

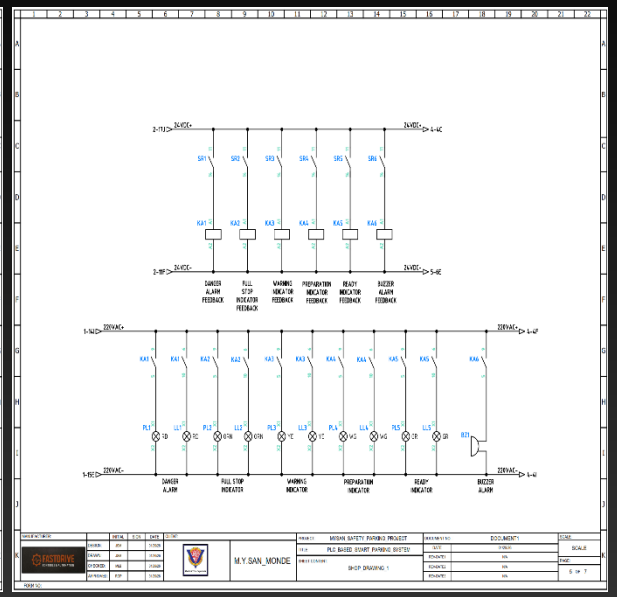

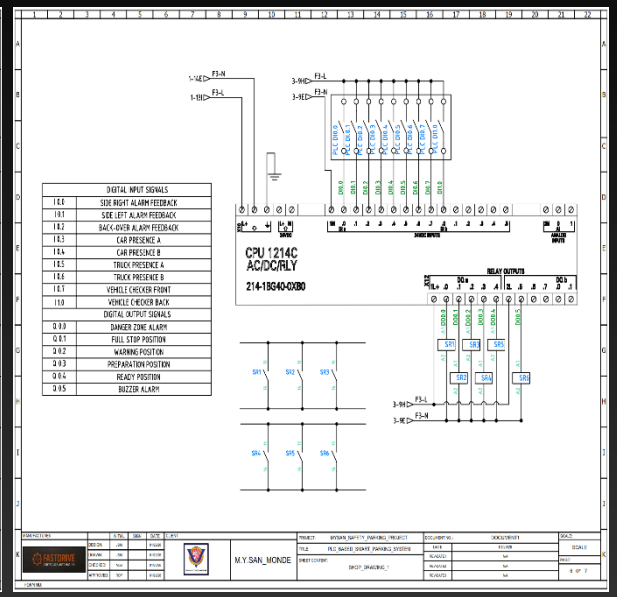

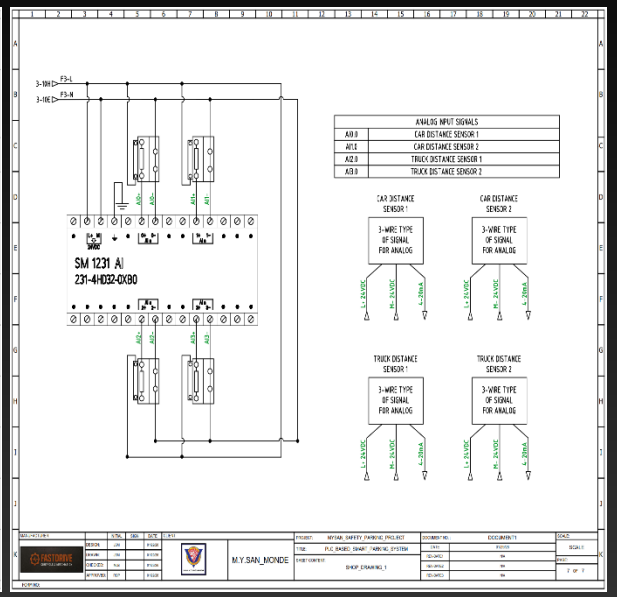

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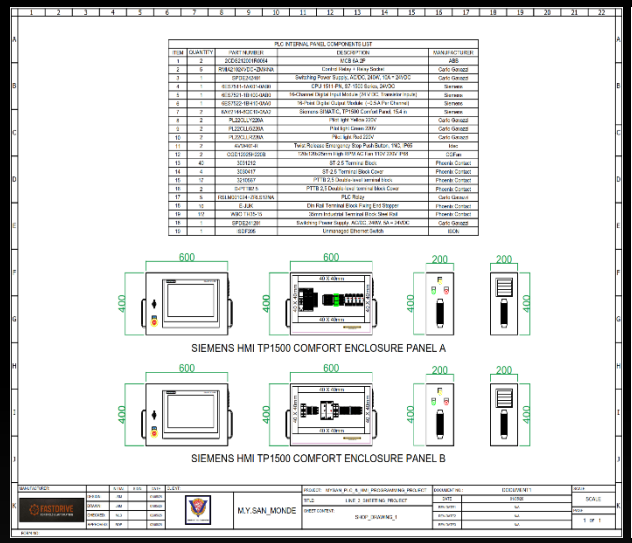

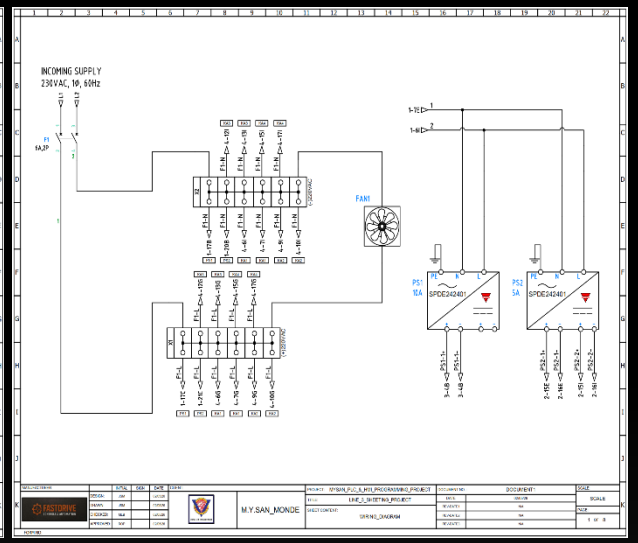

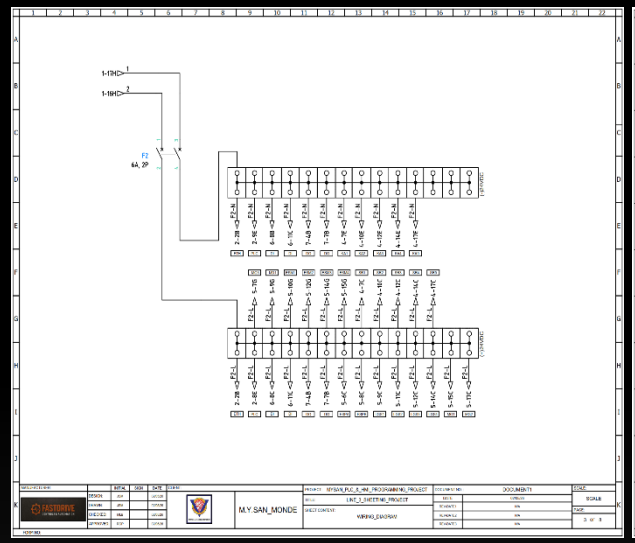

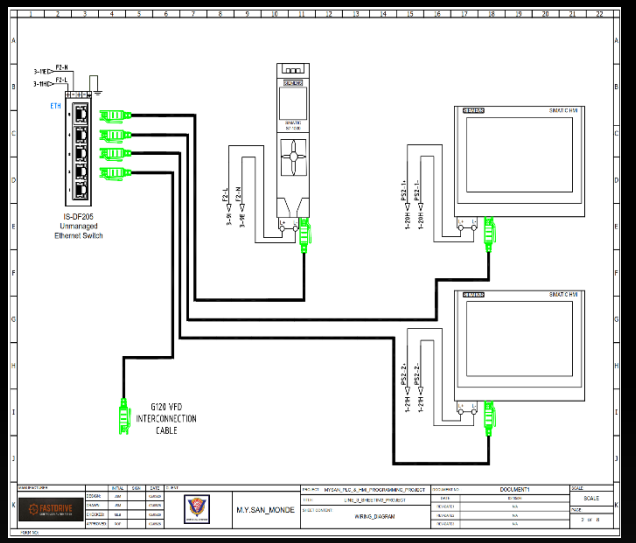

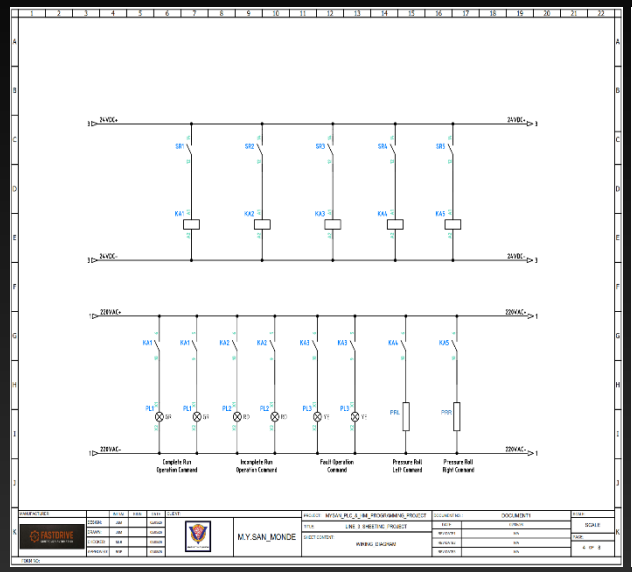

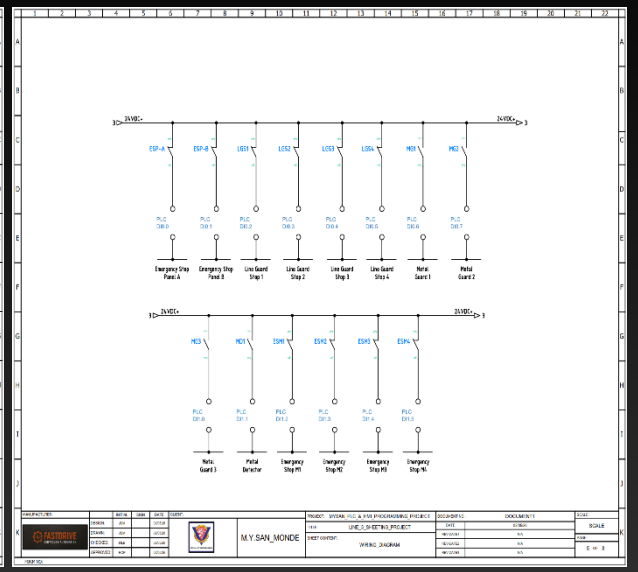

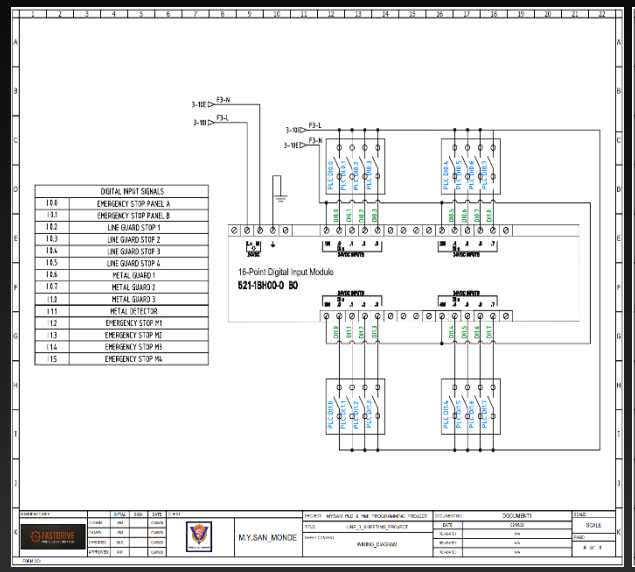

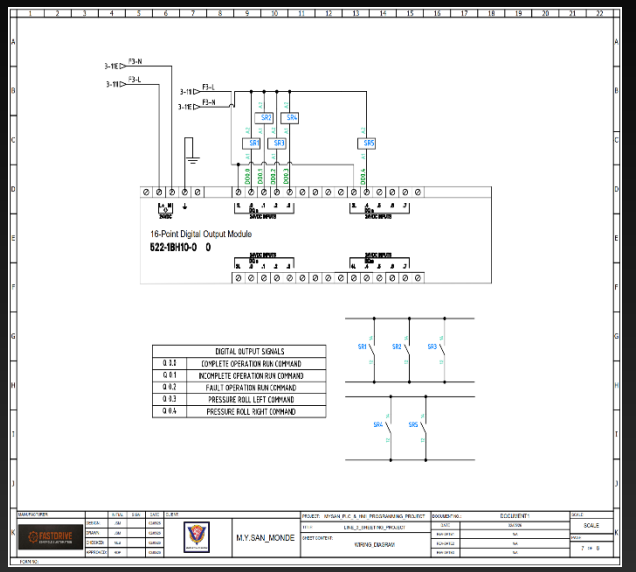

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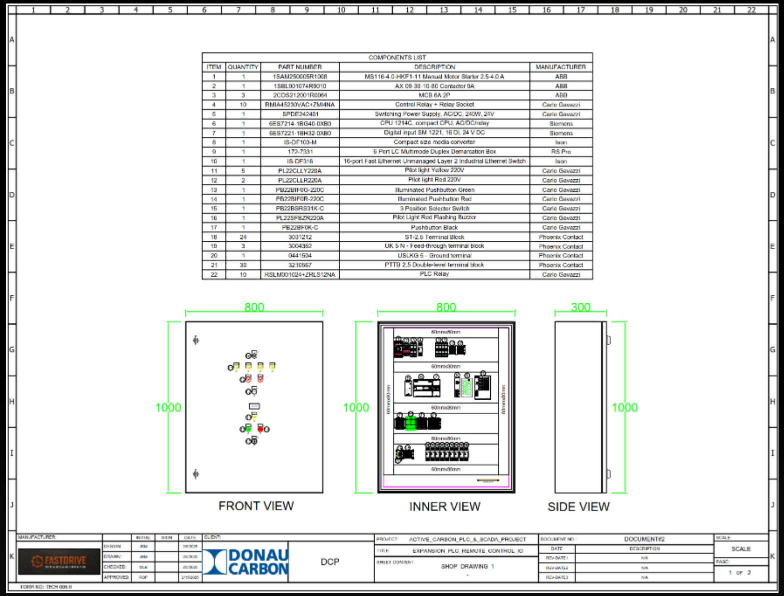
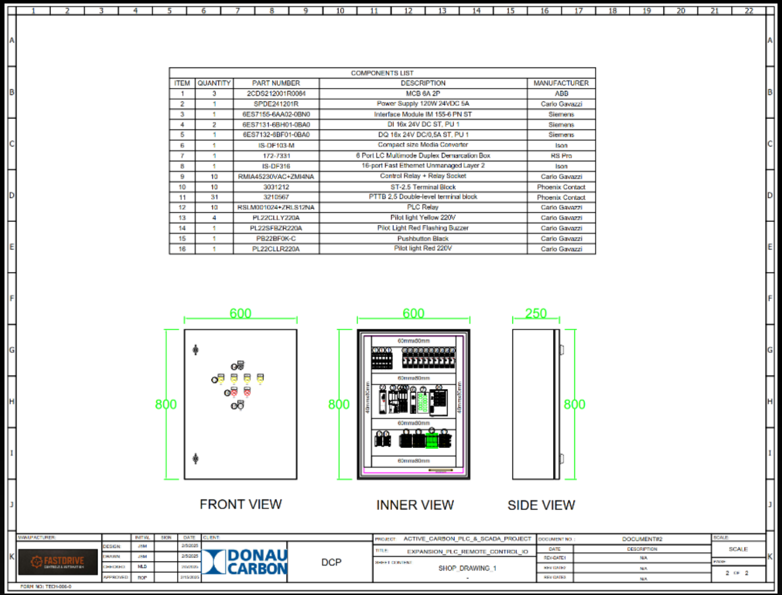
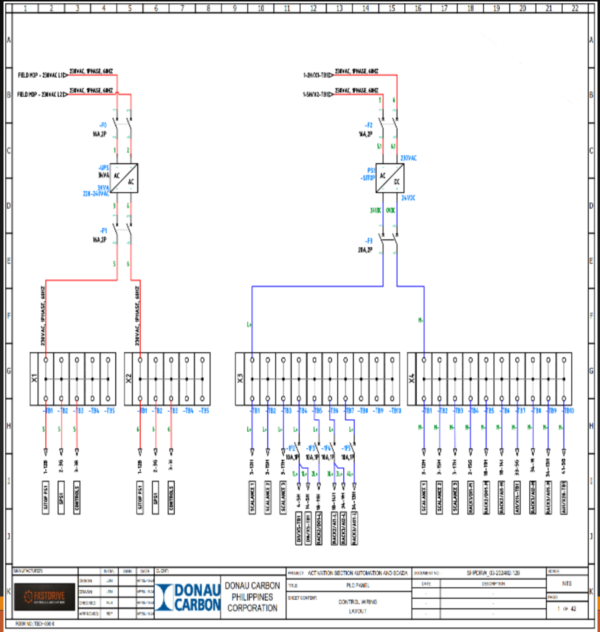
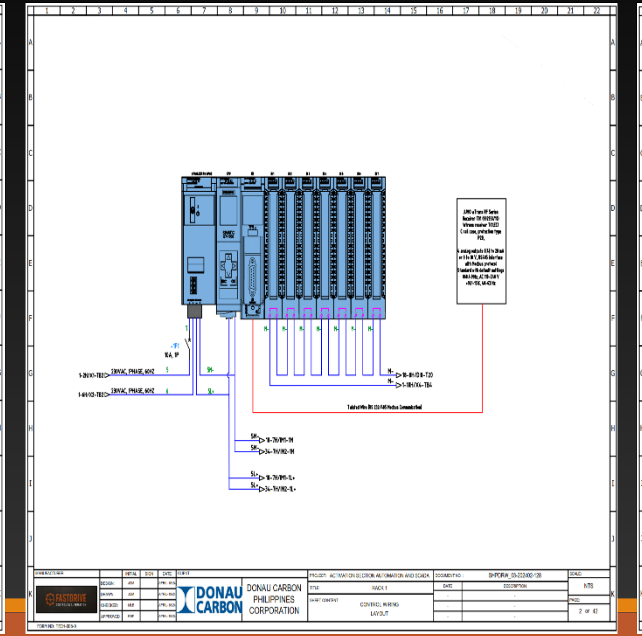
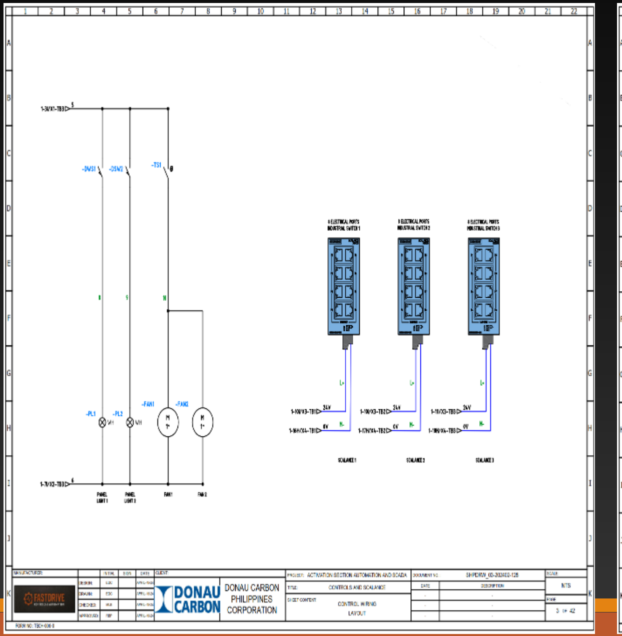
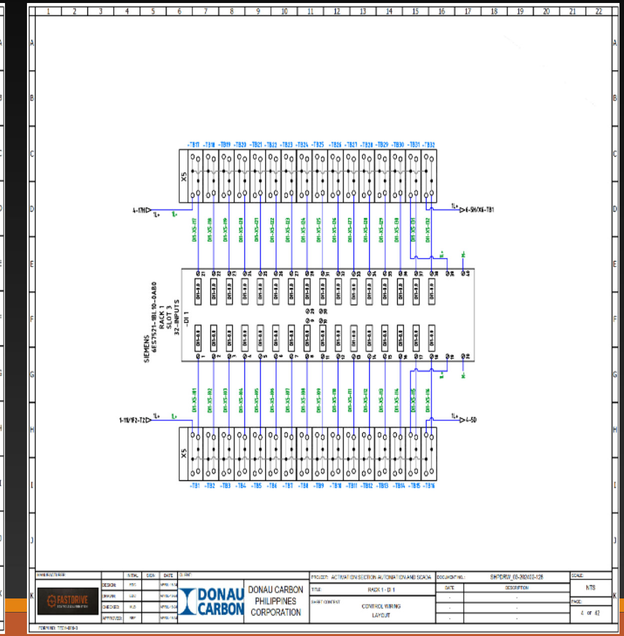






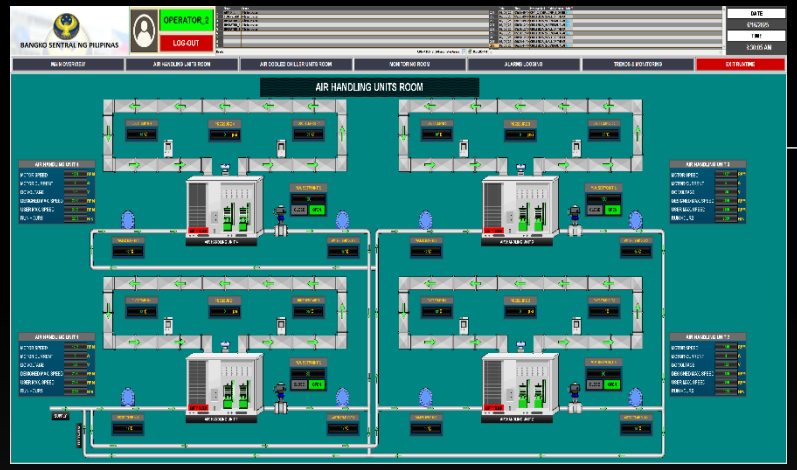


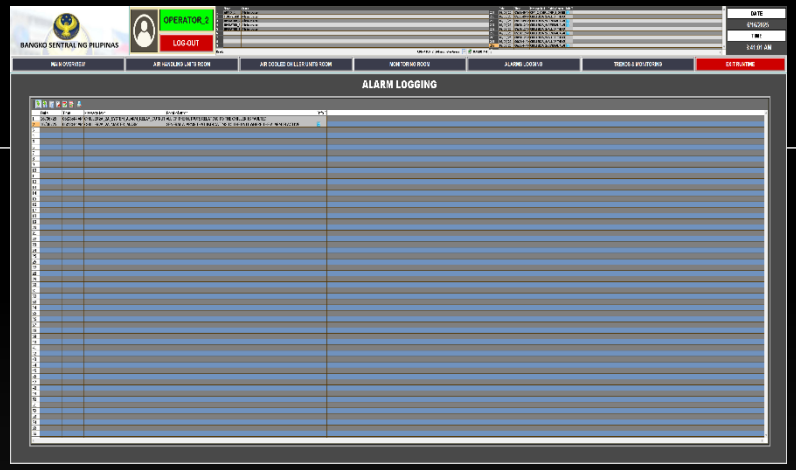


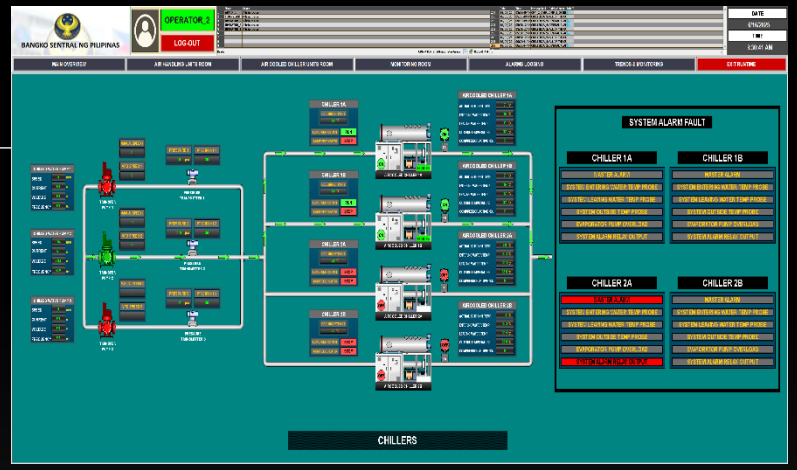


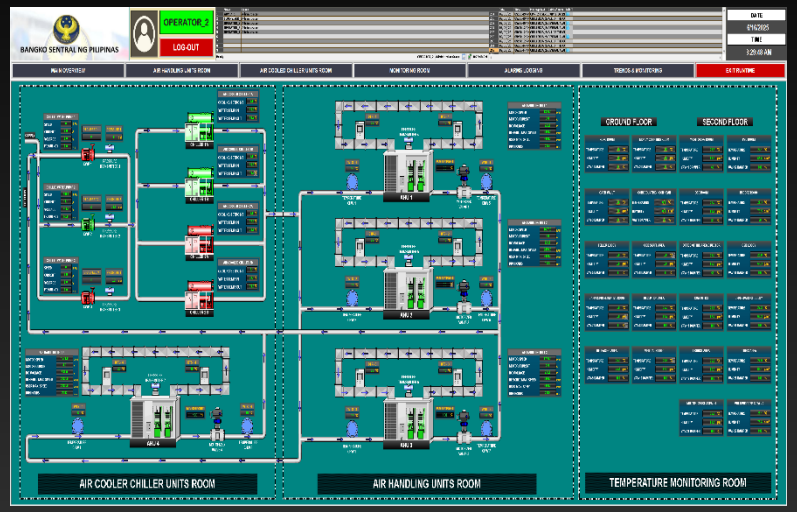
Major Project Turnovers

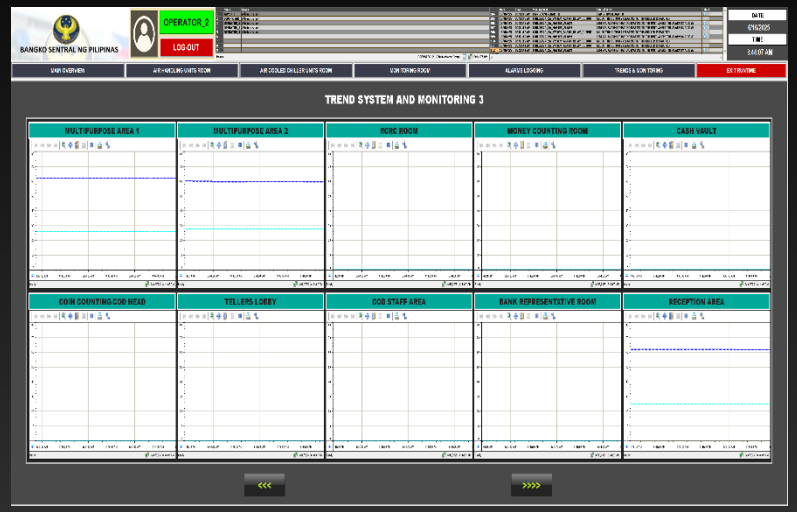
- Bangko Sentral Ng Pilipinas – PLC SCADA & BMS Project





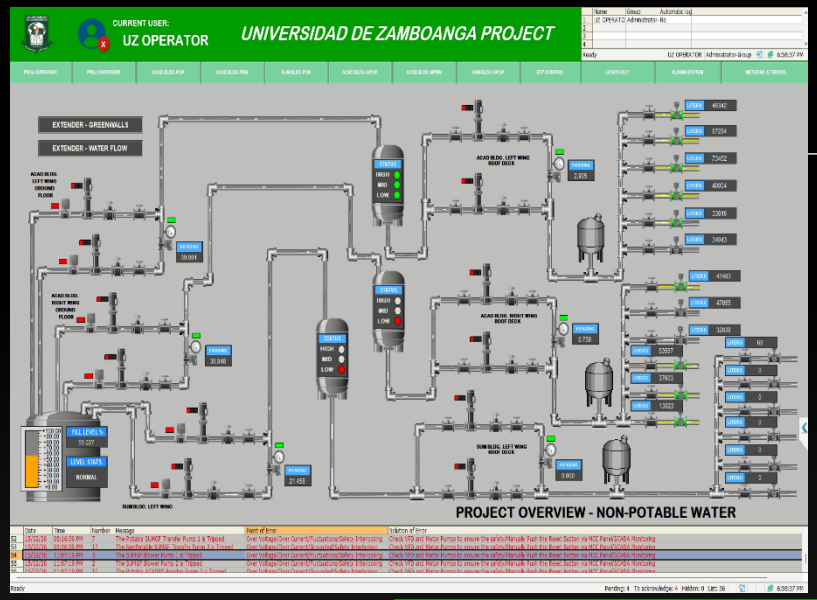


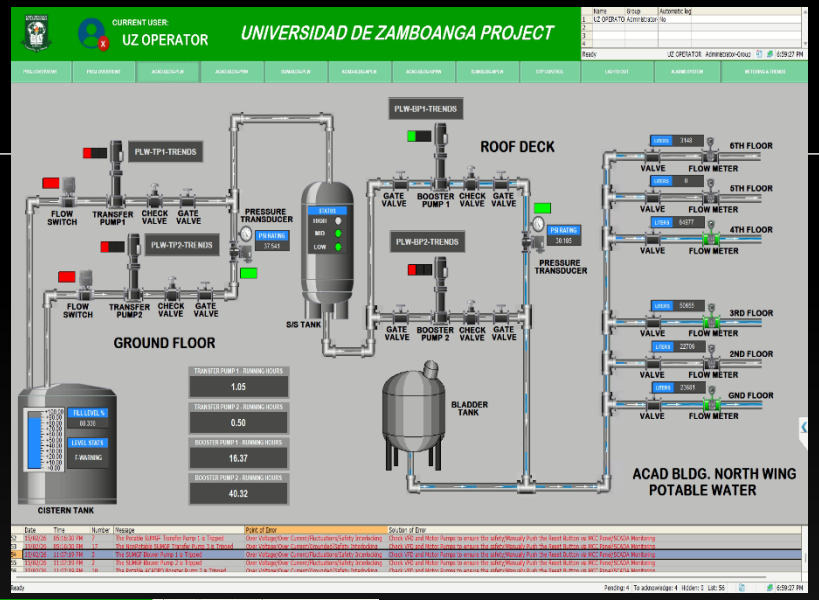


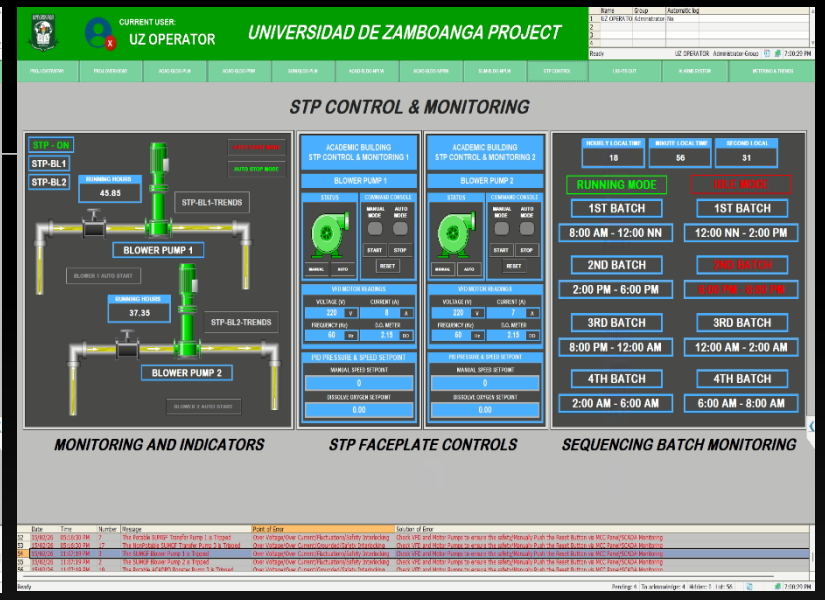


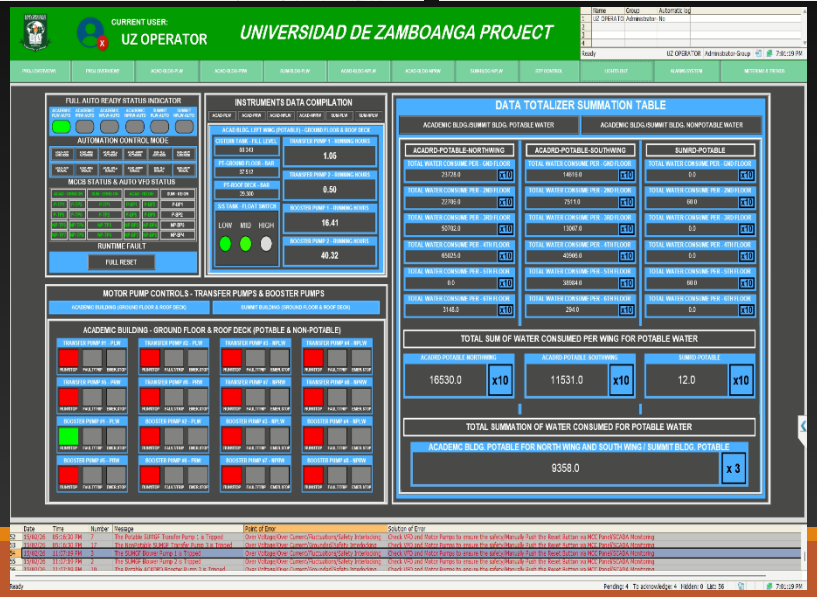
Major Project Turnovers

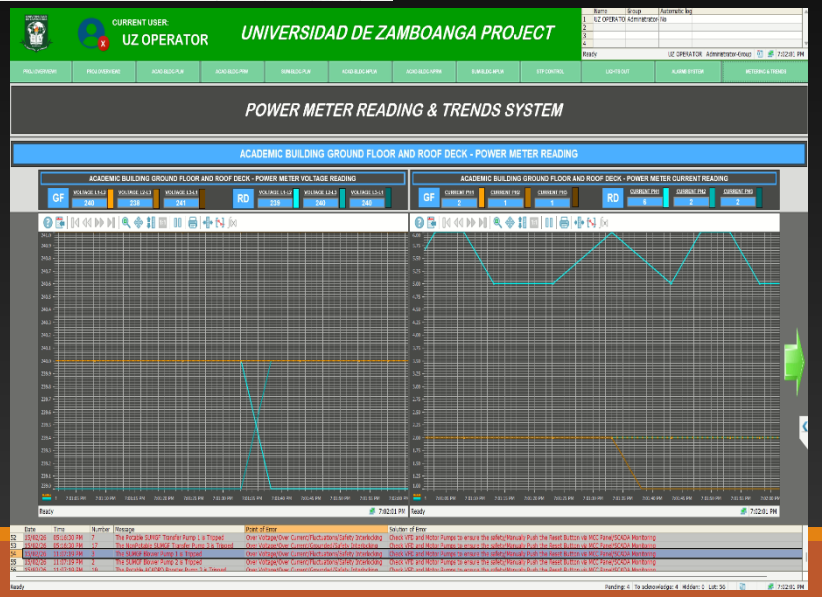
- Universidad De Zamboanga – PLC SCADA Project





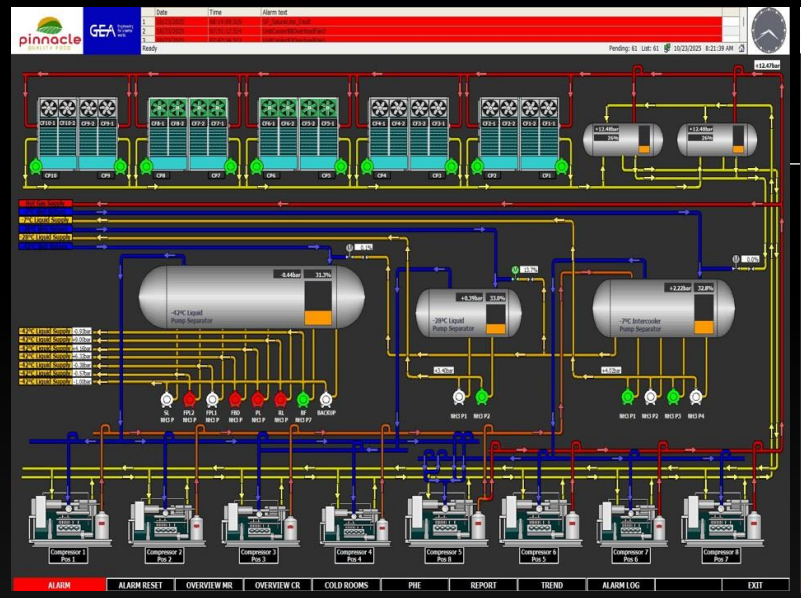


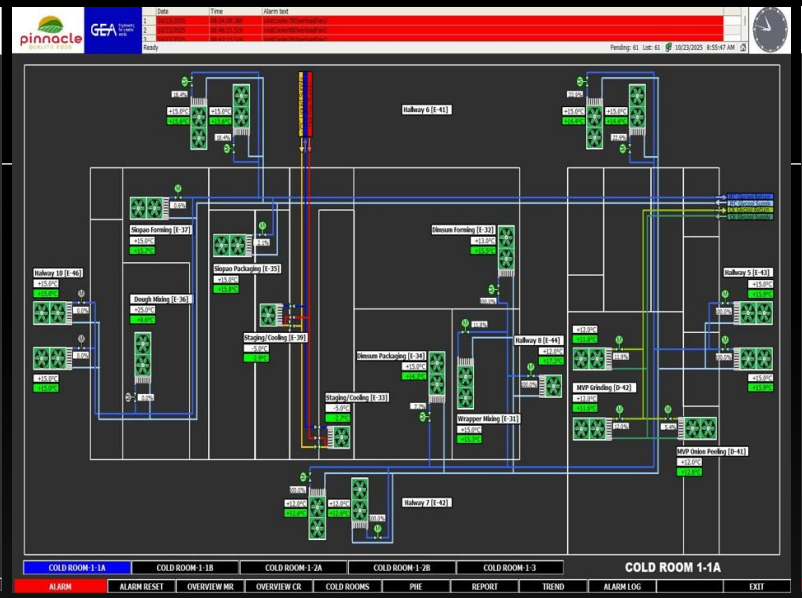


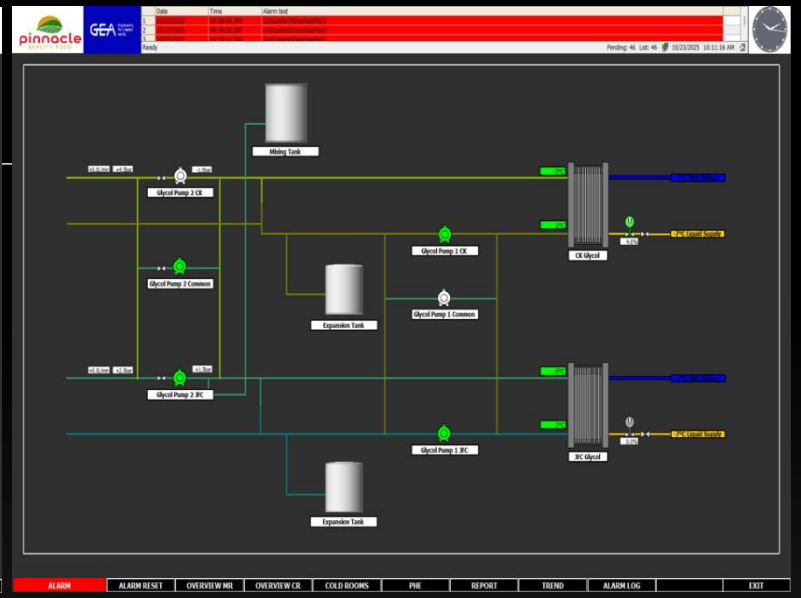


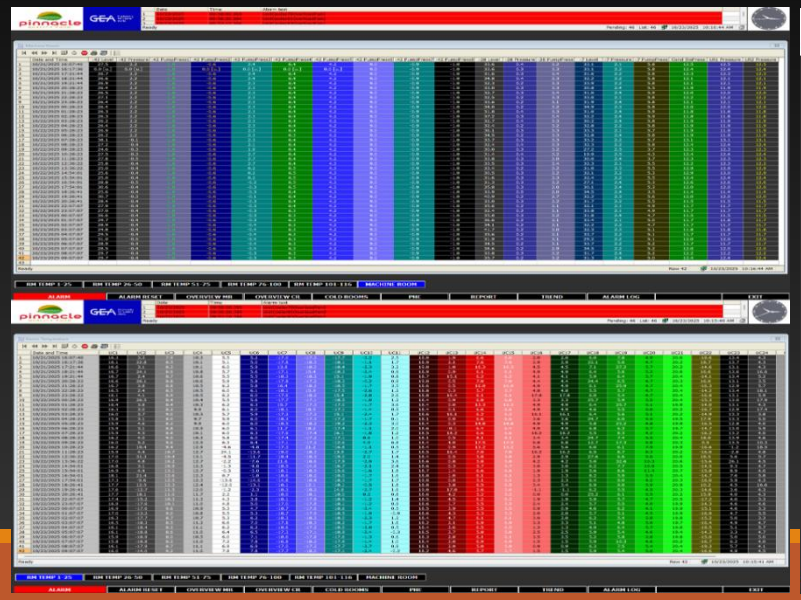
Major Project Turnovers

- Jollibee Pinnacle Foods GEA Cold Storage – PLC SCADA Project



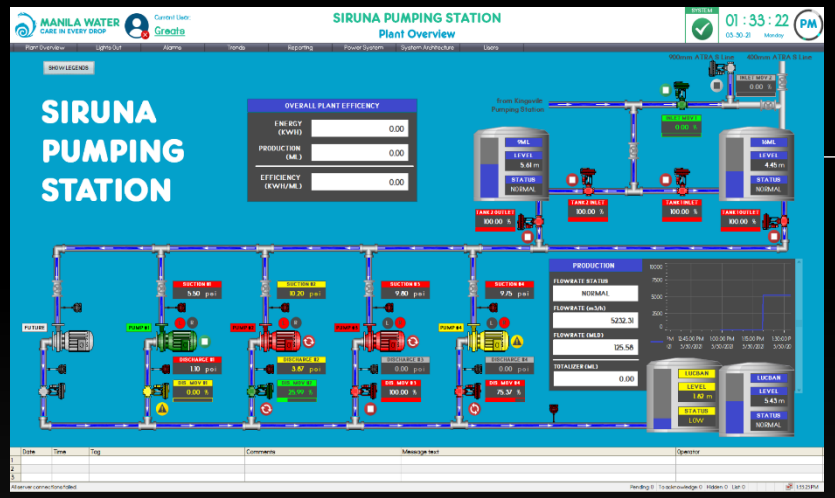


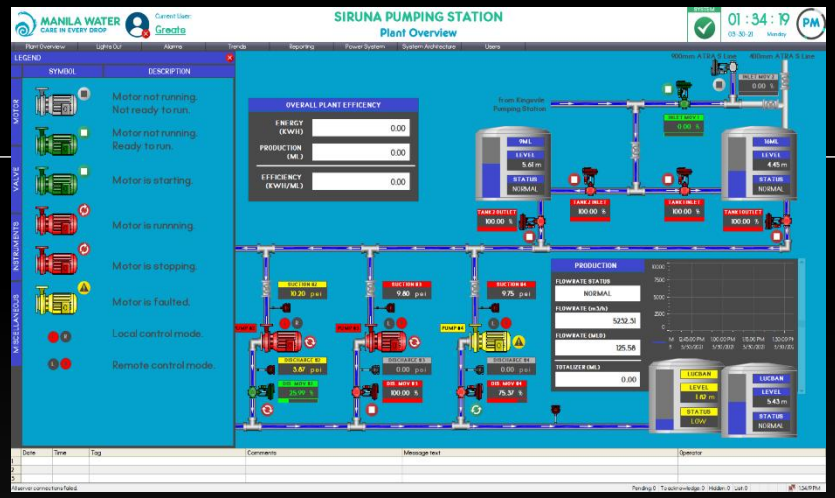


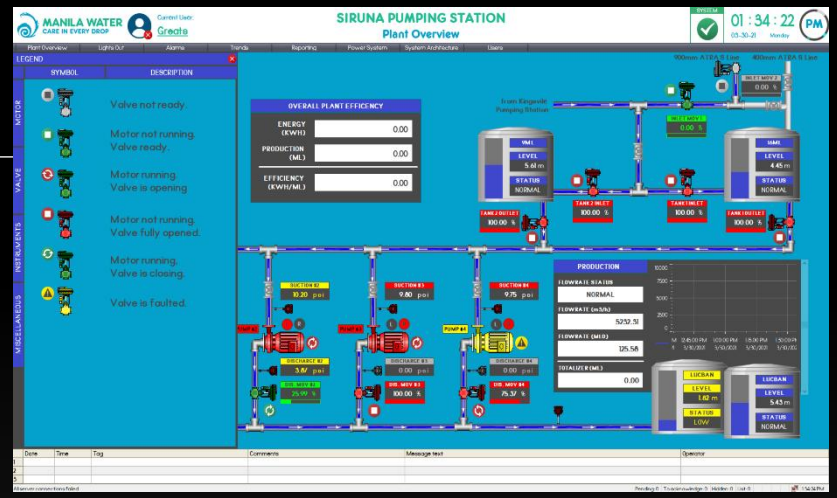


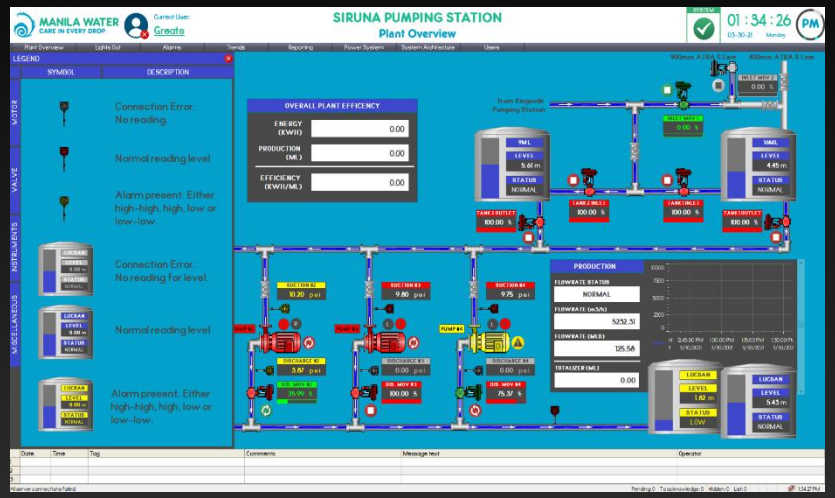
Major Project Turnovers

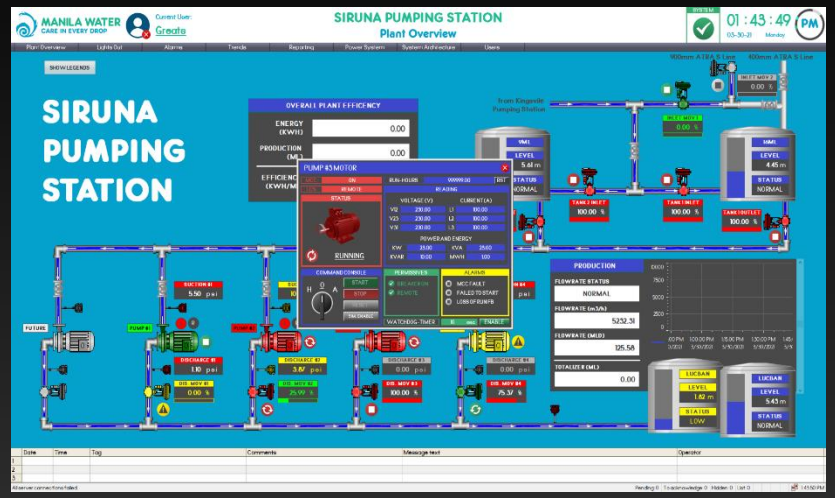
- Siruna Manila Water – PLC SCADA Project

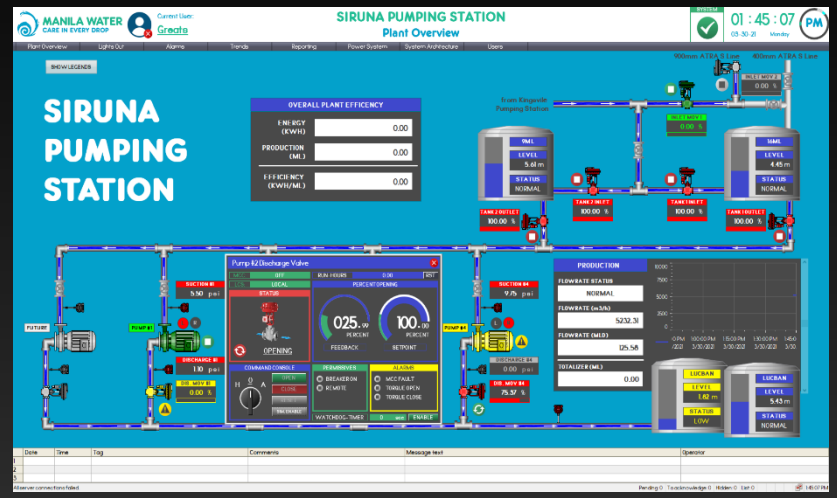






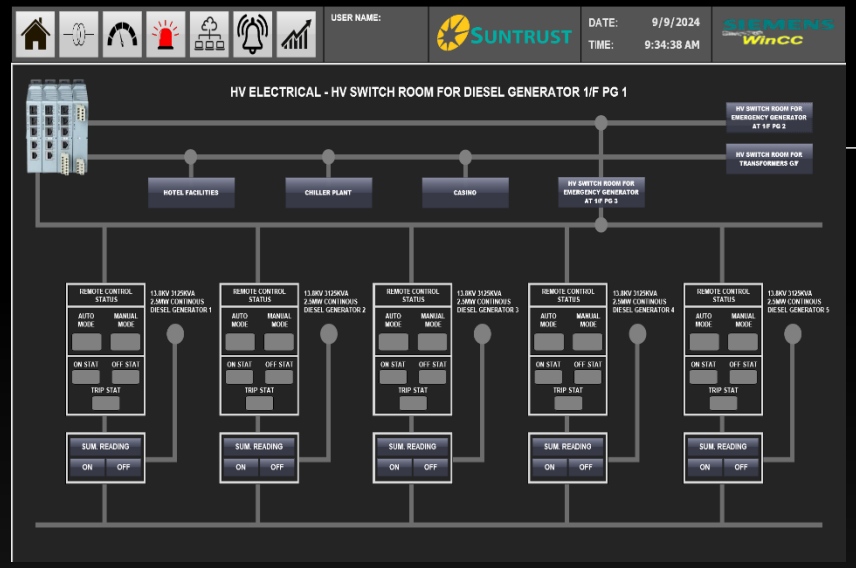


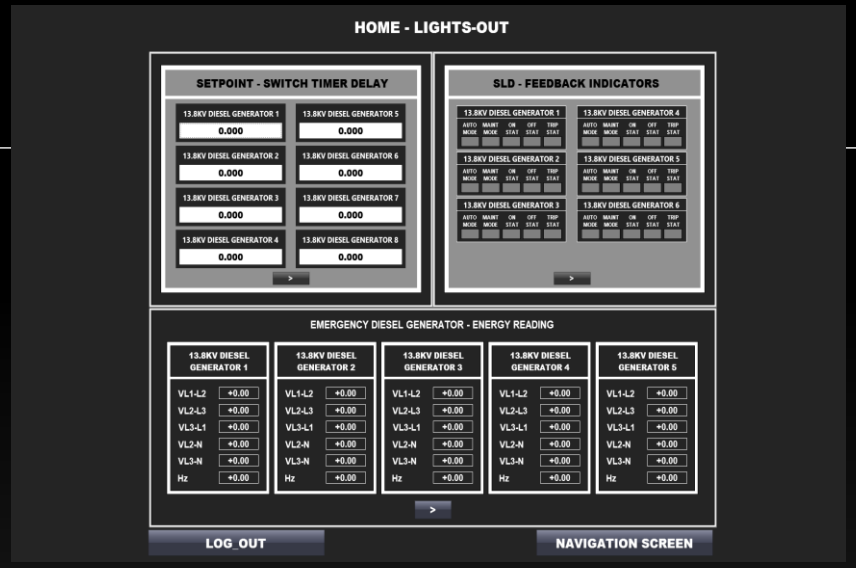


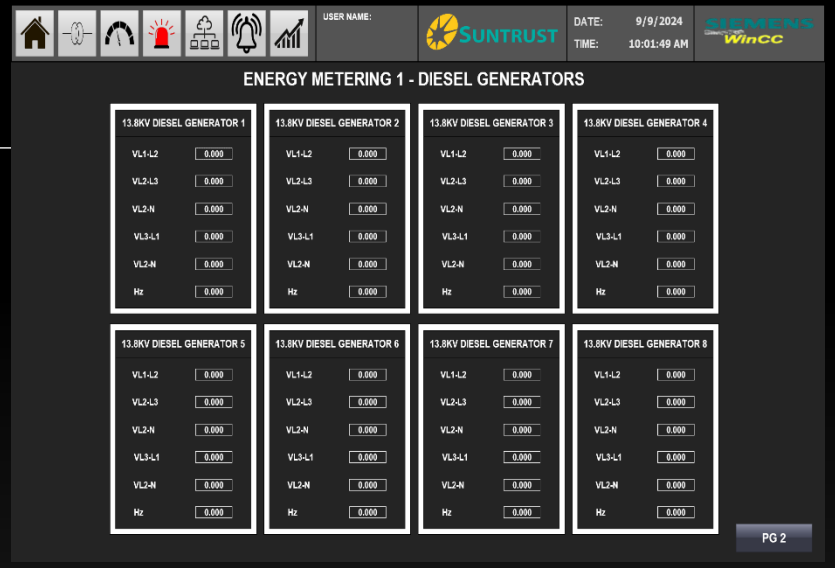


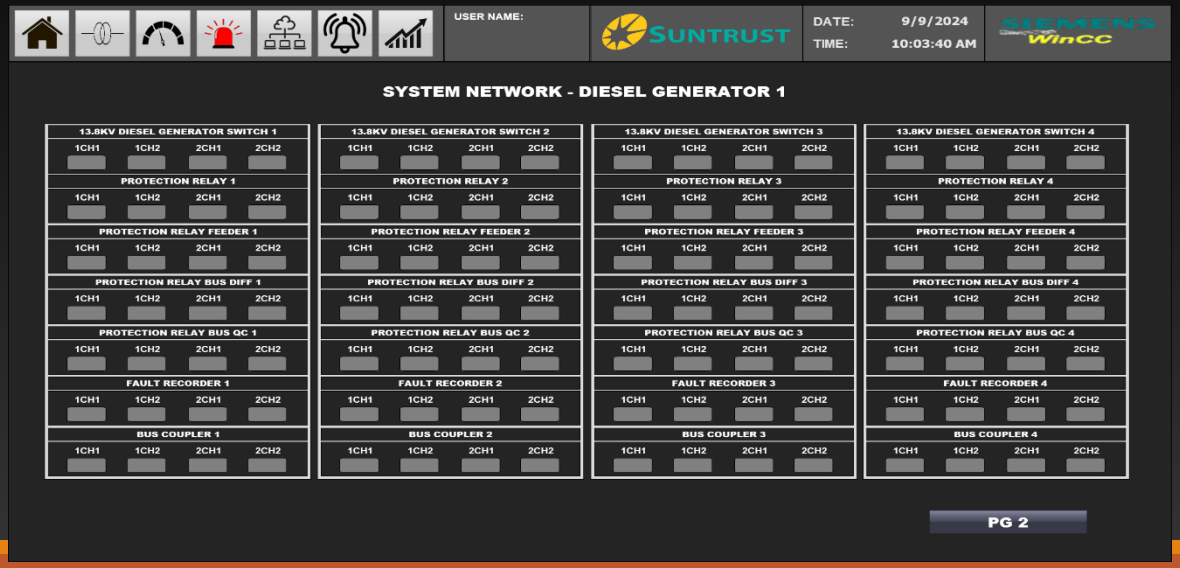
Major Project Turnovers

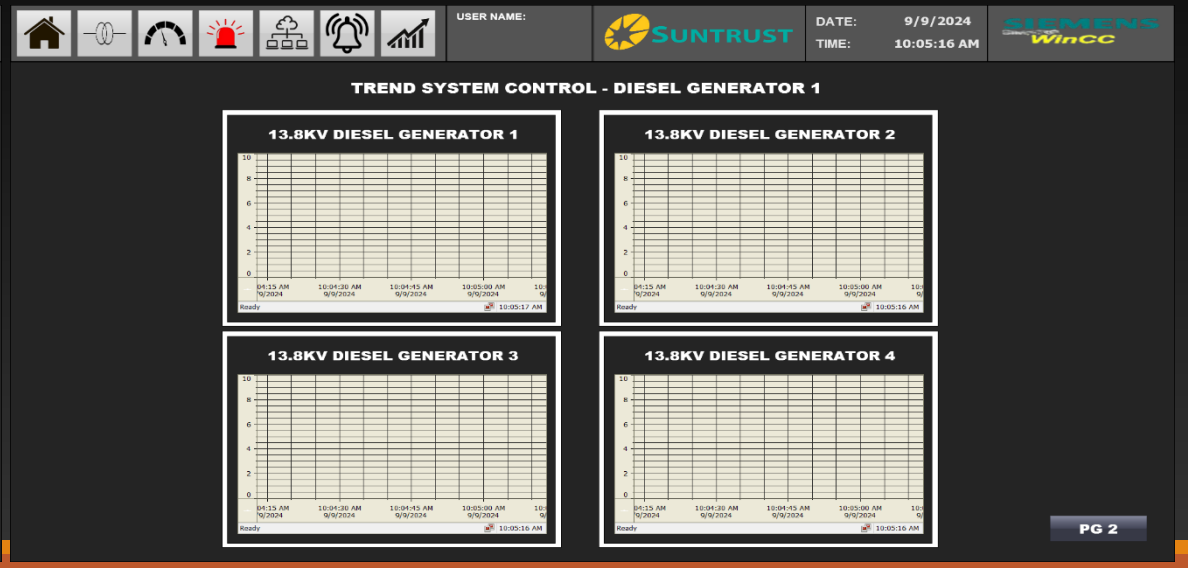
- Arcadis Energy Suntrust – PLC SCADA & BMS Project





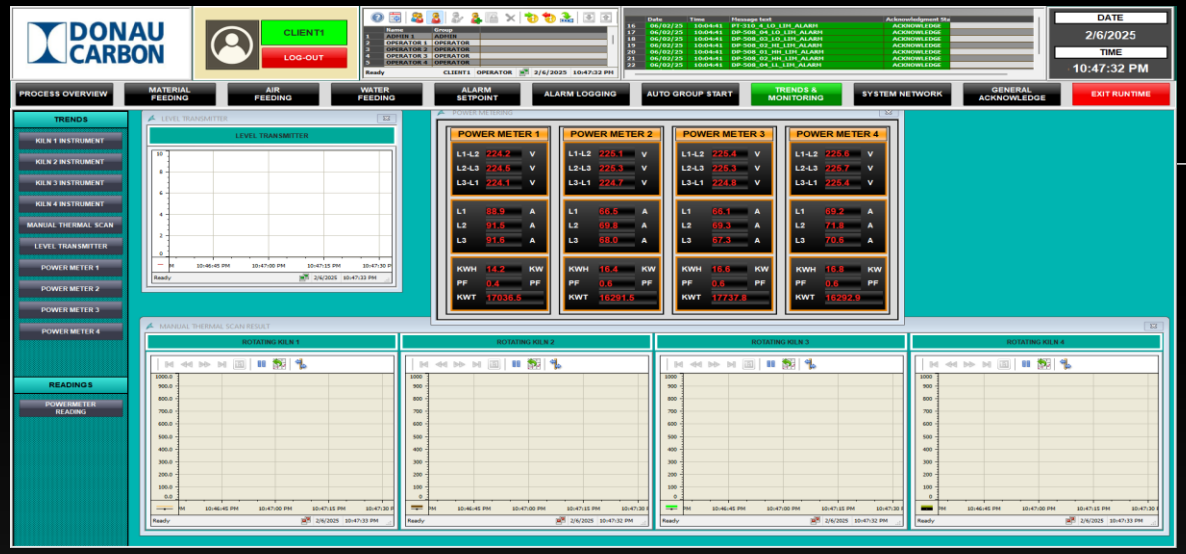


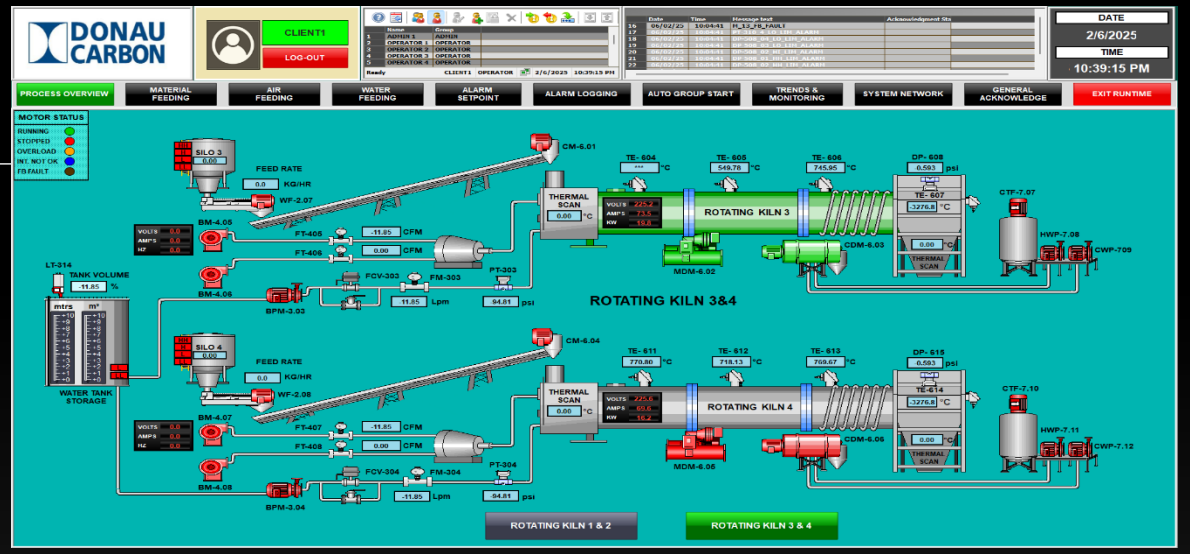


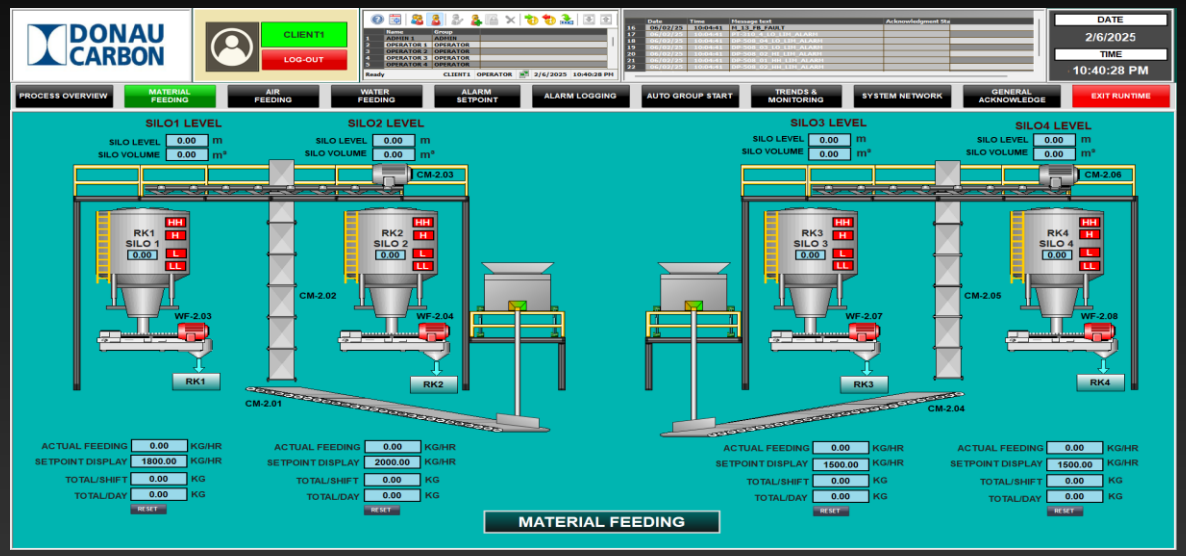


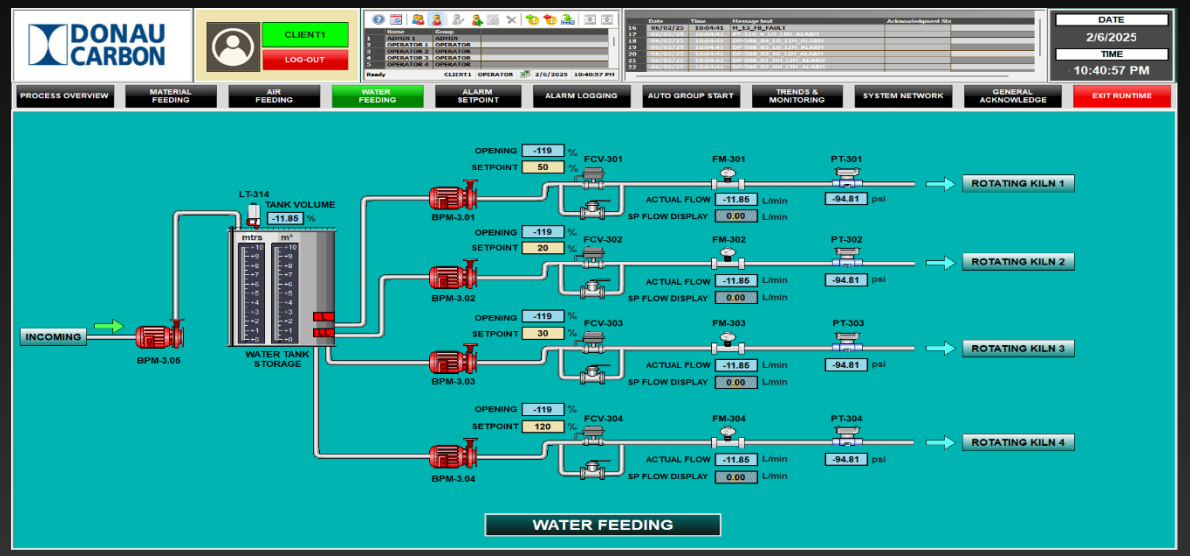
Major Project Turnovers

- Donau Carbon Cagayan De Oro – PLC SCADA & BMS Project



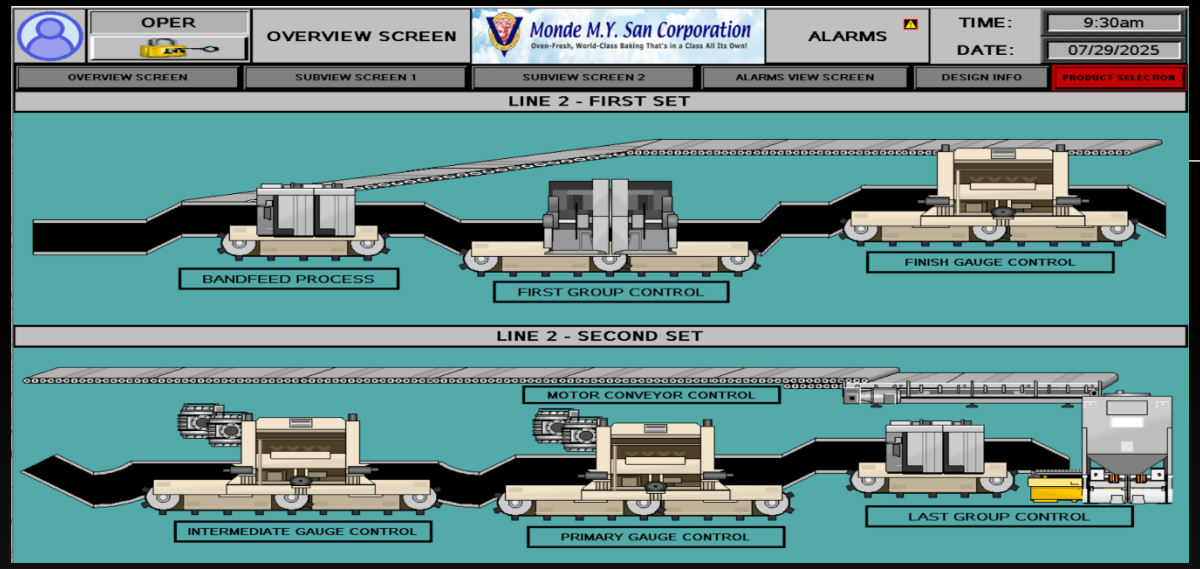


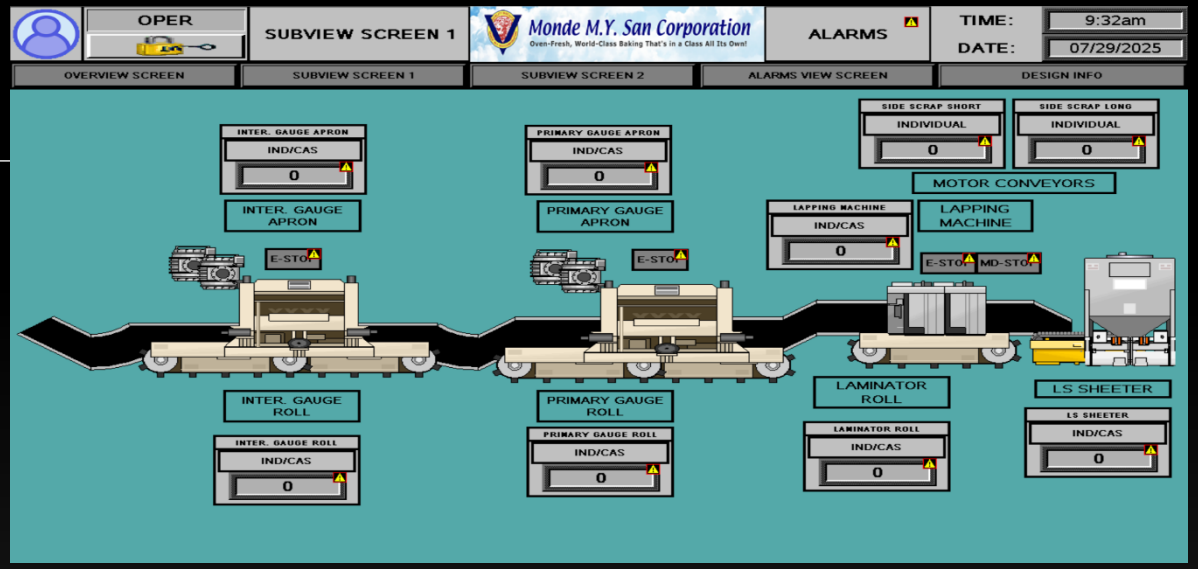


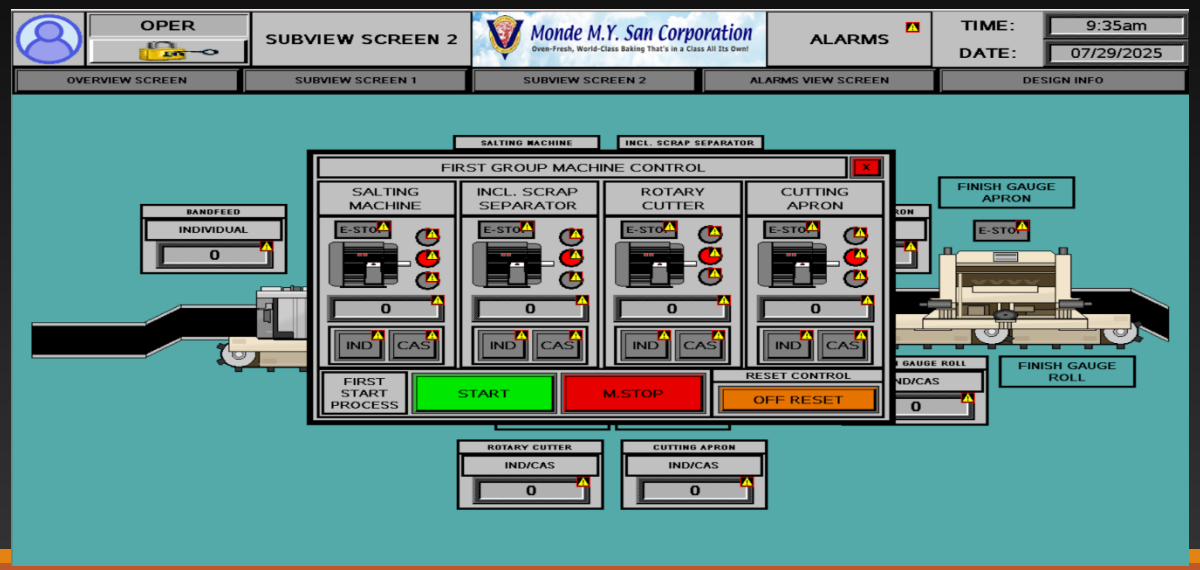


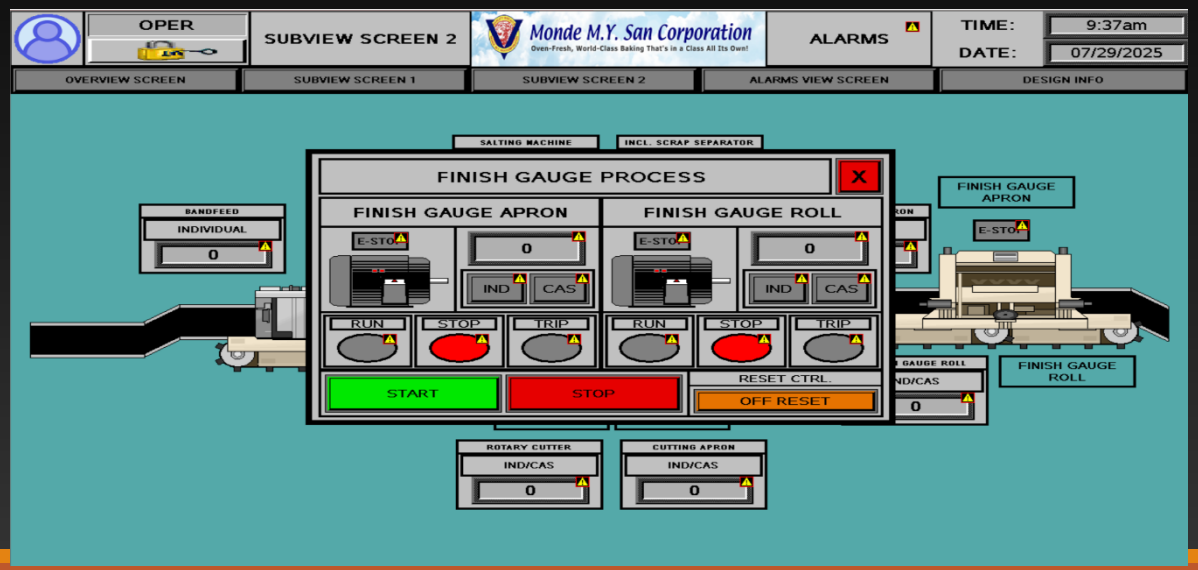
Major Project Turnovers

- M.Y. San Monde Line Sheet – PLC HMI Project









Major Project Turnovers

- Tanawon Powerplant Toshiba – PLC DCS7 Plant Project