

High Load Demand Development

Electricity supply demand of less than 20MVA requires an 11kV supply network with distribution substations inside the customer's premises supplying several load blocks varying from 2 to 9MVA.

When electricity supply demand reaches 20MVA, a 132kV Customer substation built inside the customer's premises or lot will be required.

Development of higher electricity supply demand and higher supply security can be achieved by building a 132kV transmission plant room & associated infrastructure (i.e. 132kV Customer Substation) inside the customer's premises or lot depending on site conditions and the customer's development. The 132kV supply is transformed down to 11kV as the infeed source for an 11kV supply network to supply several distribution substations inside the customer's premises.

Depending on the actual demand of the new supply application, the typical supply capacities for high load demand development with transmission plant room are 50MVA, 100MVA and 150MVA. For meeting the supply security standard of the specific high load demand development, CLP Power will arrange for the electricity network configuration to suit.

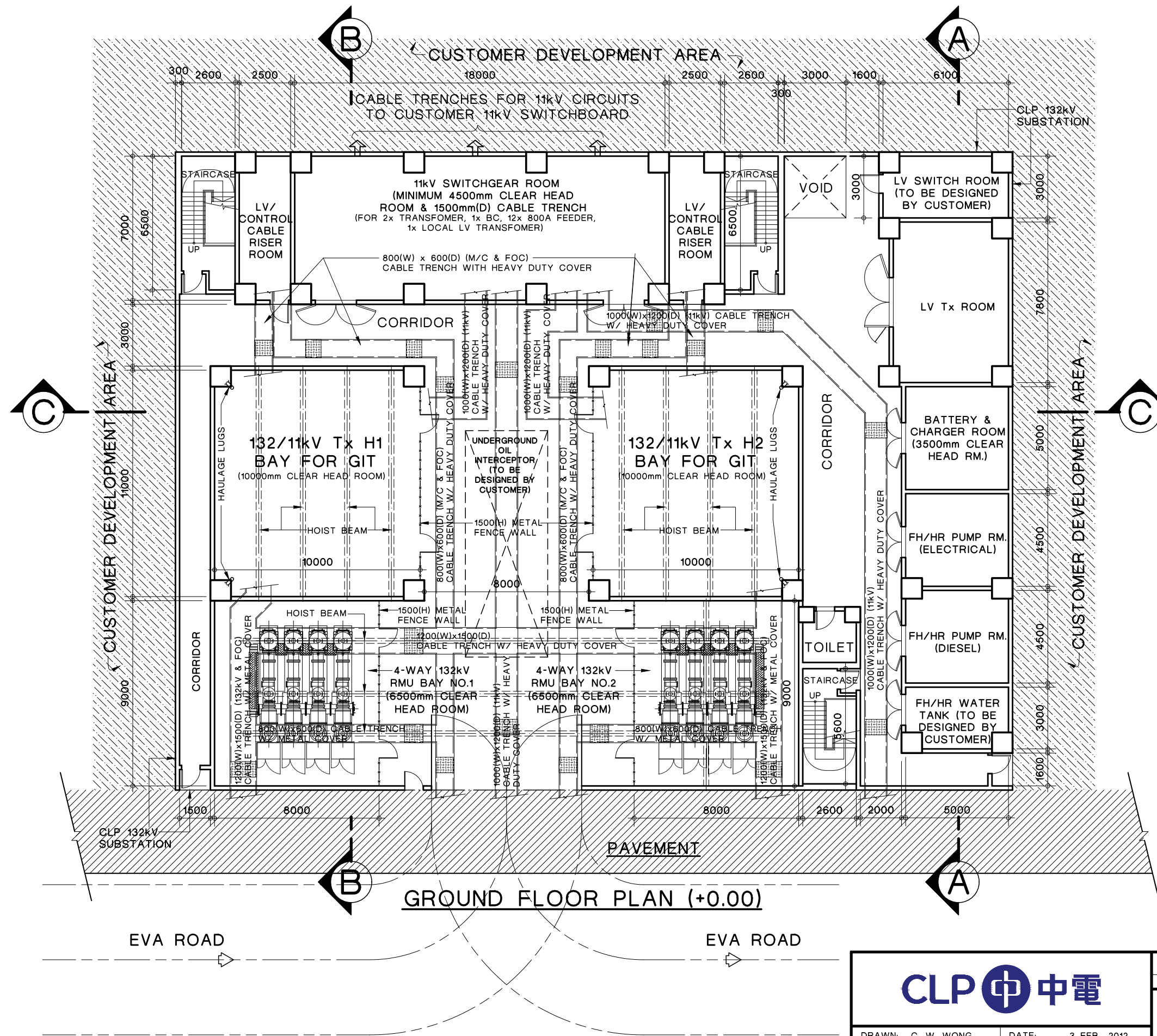
For layout of the accommodation to house the 132kV supply plant and equipment, please refer to the attached typical 132kV Customer Substation layout drawings. * The drawings are for illustration purpose only, the final arrangement for individual site is subject to the agreement between the customer and CLP Power for specific site conditions and requirements.

Only English version is available for this document. 本文檔僅提供英文版本。

CONTACT US:

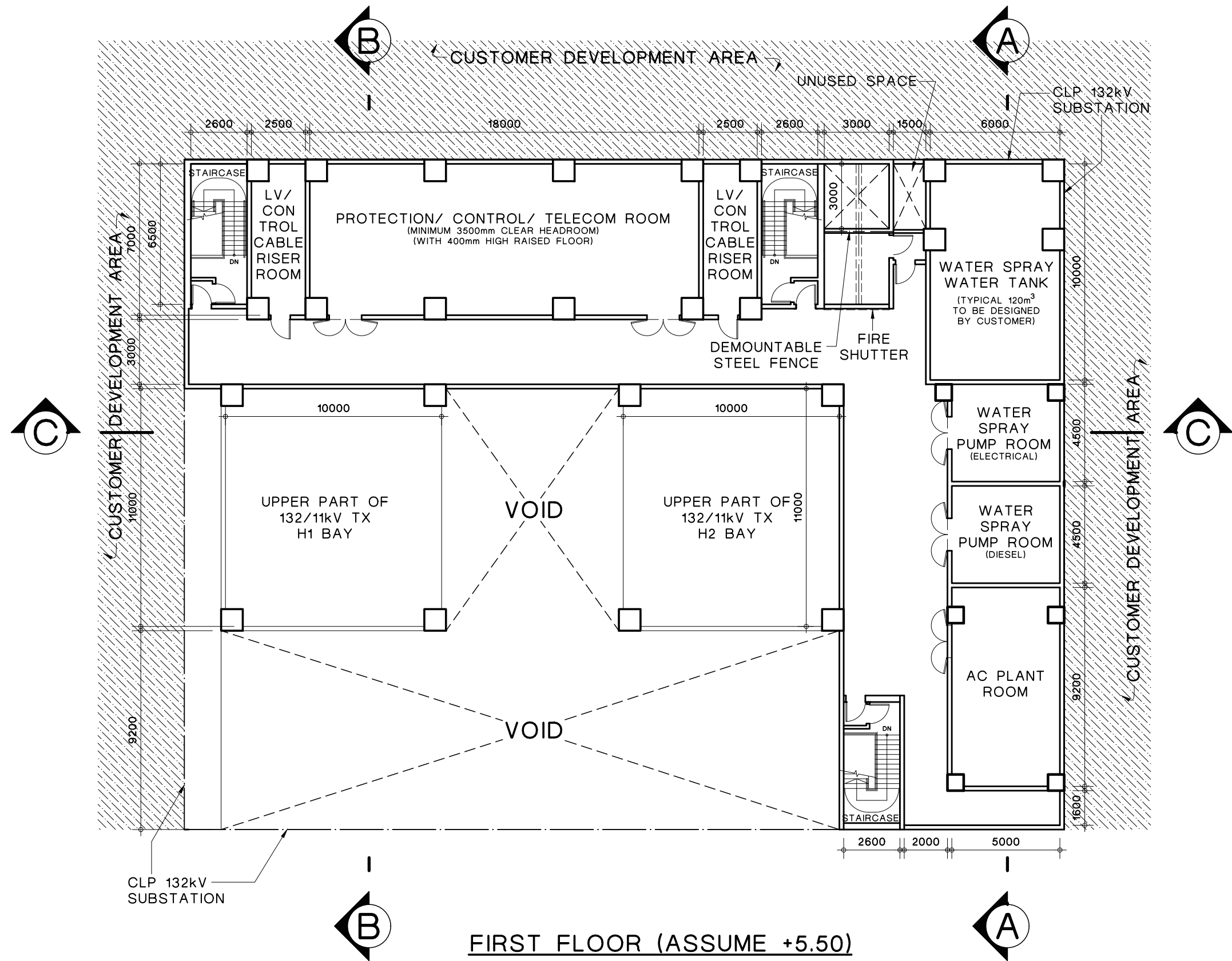
You can contact our Account Manager by email (accmgr@clp.com.hk) or on telephone no. (2678-2660) and we are happy to arrange our Engineer to discuss the technical details of your proposed installation.

您可以透過電郵（accmgr@clp.com.hk）或電話號碼（2678-2660）與我們的客戶經理聯繫。我們很樂意安排相關的工程師與您討論您建議裝置的技術細節。



D	LAYOUT REVISED	B	LAYOUT CHANGED
C	LAYOUT CHANGED	A	GENERAL REVISED

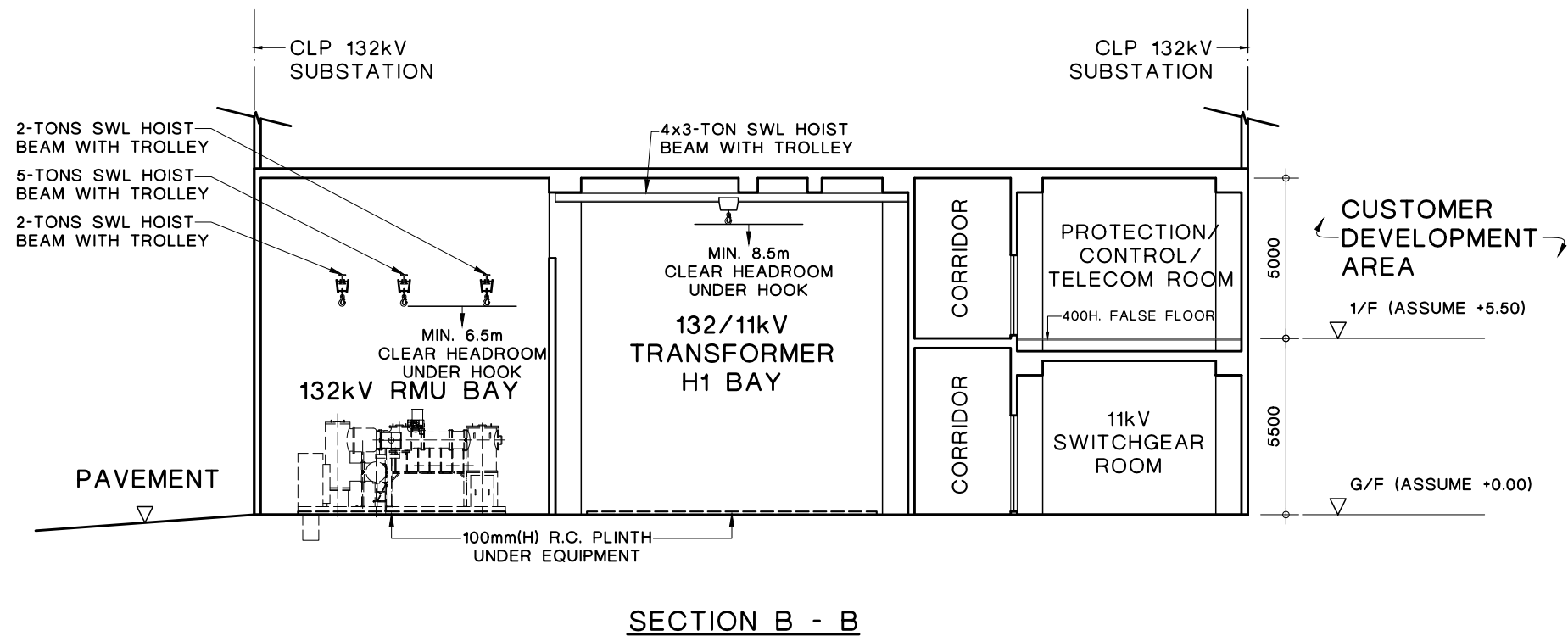
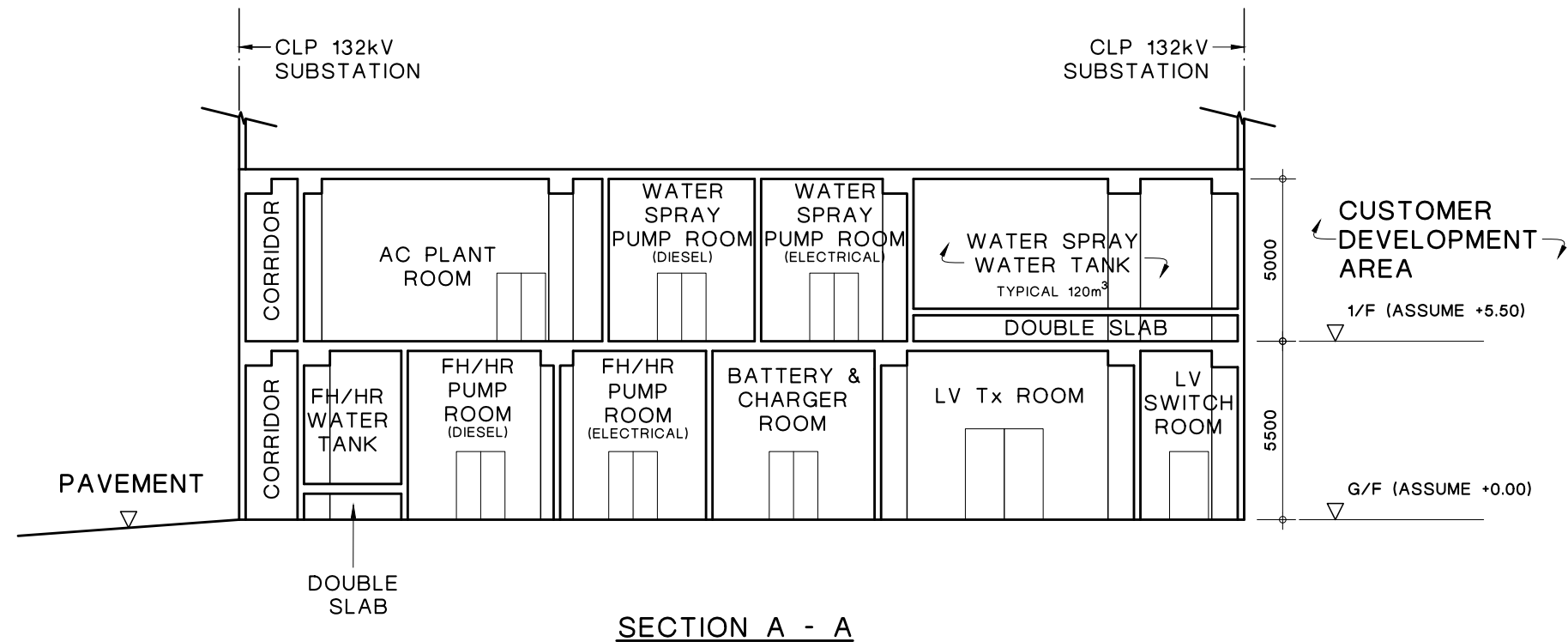
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DRAWN: C. W. WONG CHECKED: DENNIS WONG SCALE: 1													



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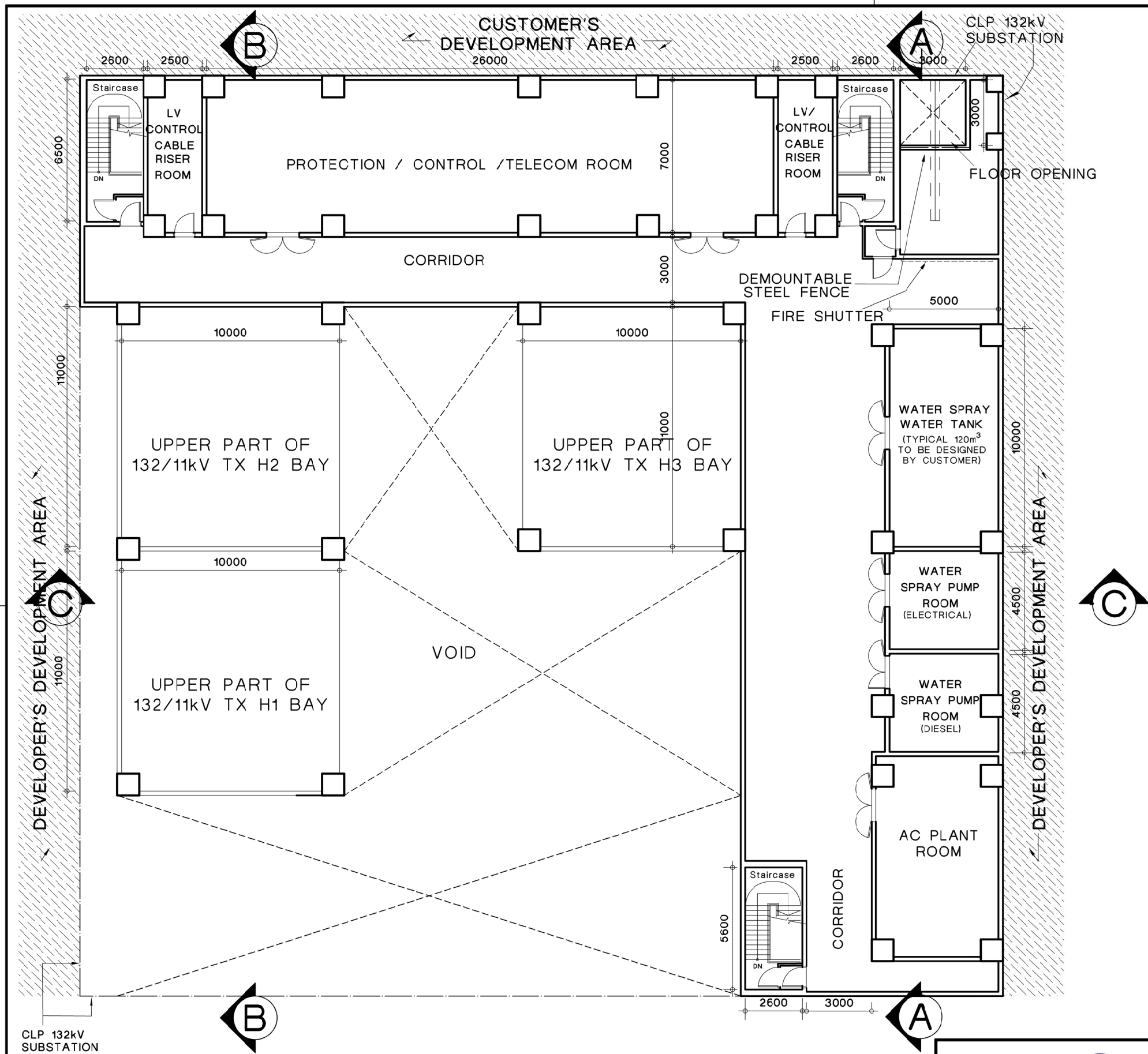
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CHECKED: DENNIS WONG	APPROVED: S P LEE
SCALE: 1 : 200	SHEET(S) IN SET:
ASSET MANAGEMENT	

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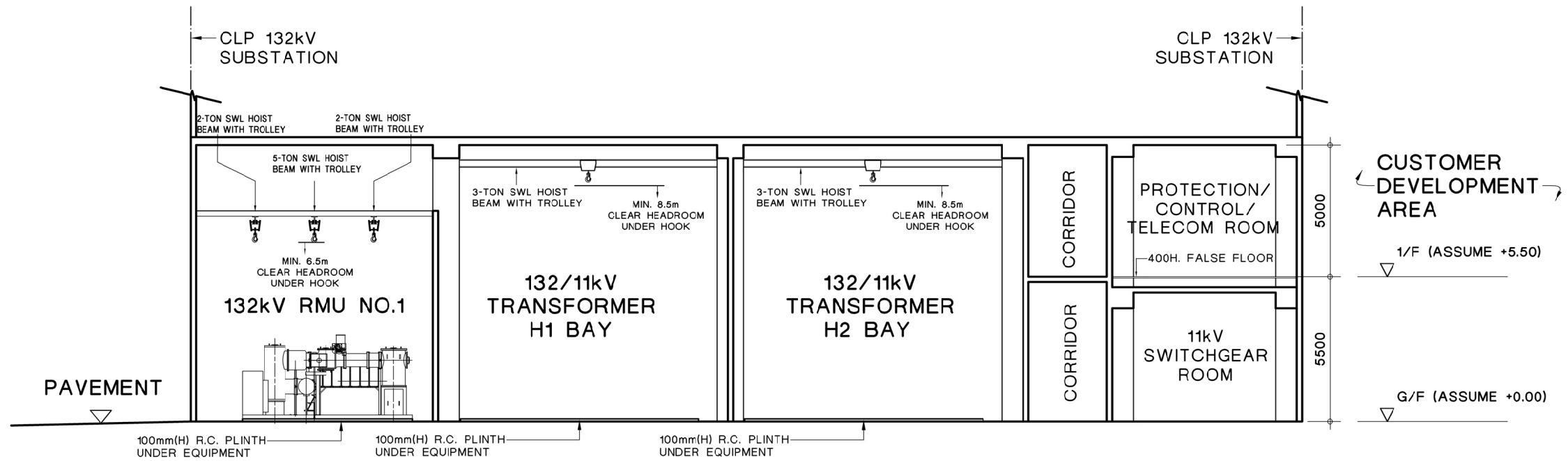
D	LAYOUT REVISED
C	LAYOUT CHANGED
B	GENERAL REVISED
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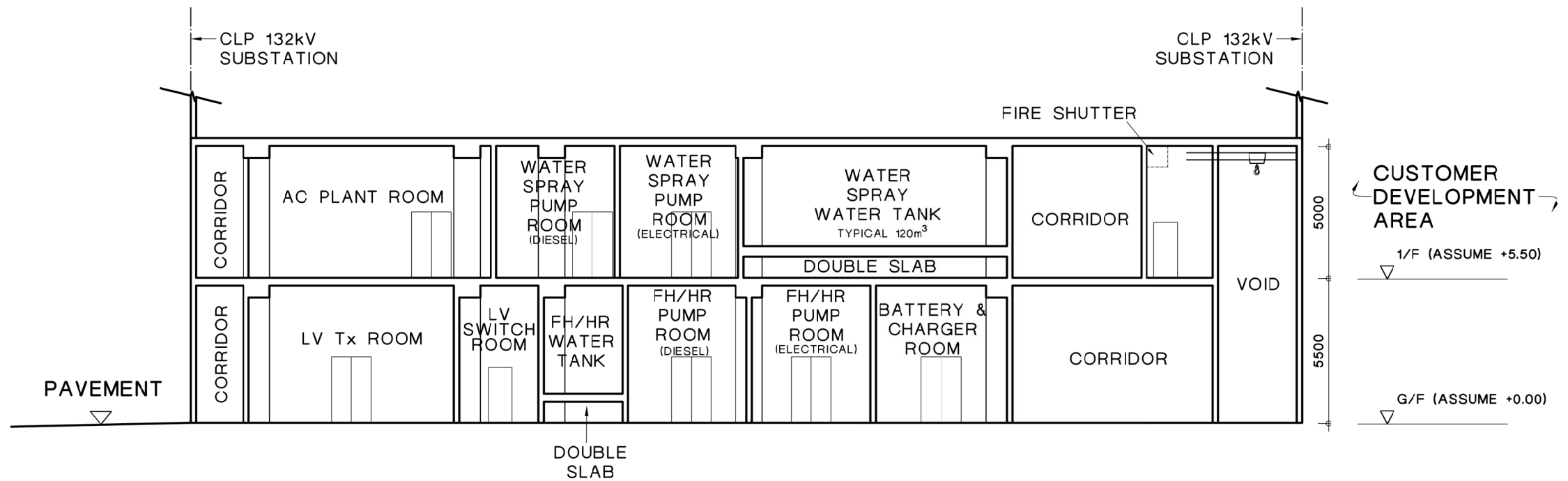


FIRST FLOOR PLAN

D	LAYOUT REVISED
C	LAYOUT CHANGED
B	GENERAL REVISED
A	GENERAL REVISED



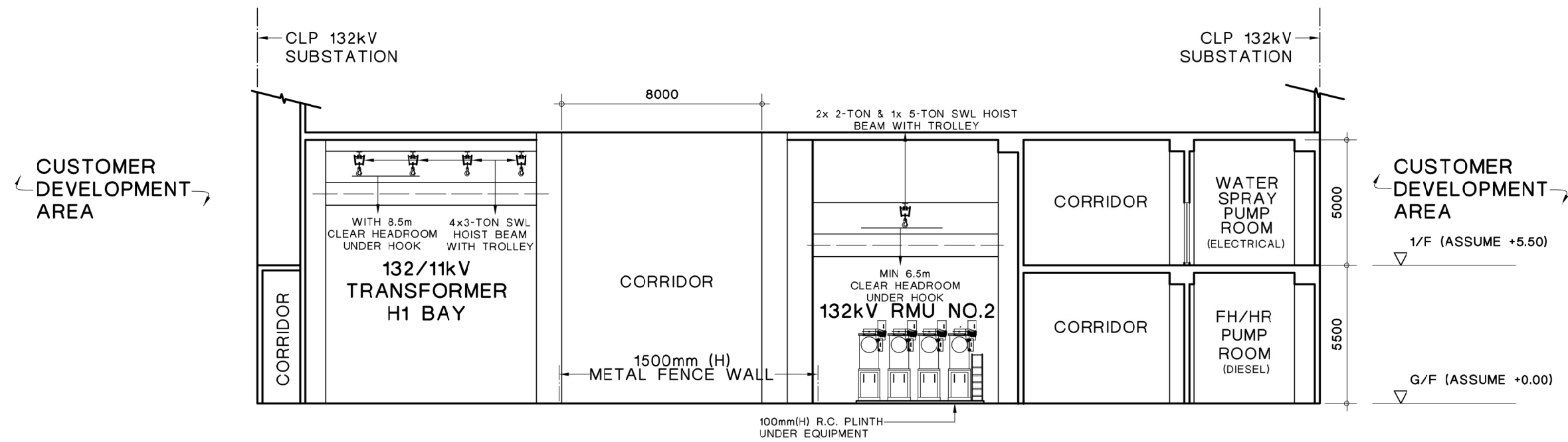
SECTION B-B



SECTION A-A

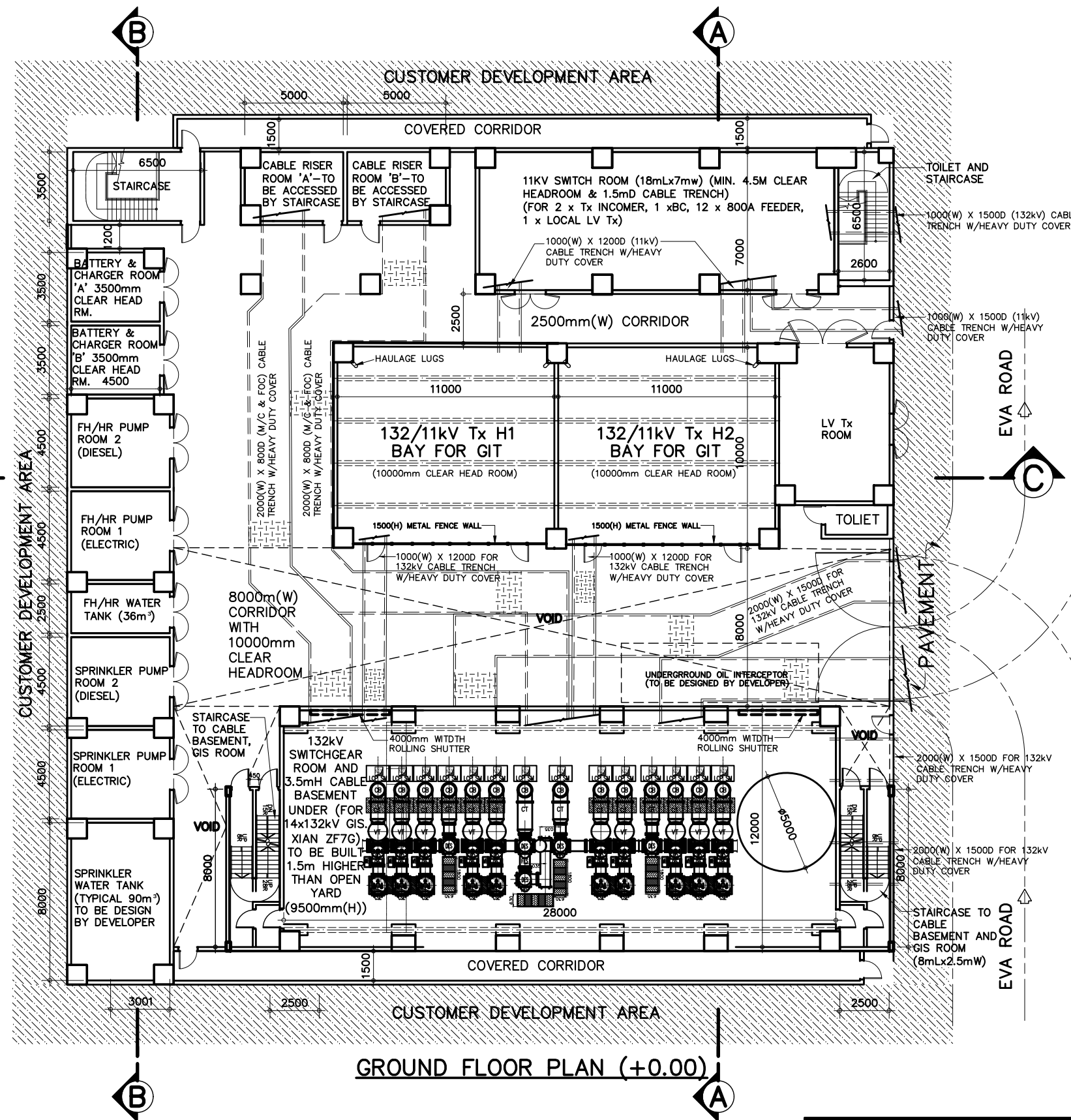
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C	LAYOUT CHANGED
B	GENERAL REVISED
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		PROJECT NO.							CONTRACT NO.						



SECTION C-C

D	LAYOUT CHANGED
C	LAYOUT CHANGED
B	GENERAL REVISED
A	GENERAL REVISED



LEGEND:

WALL/GROUND MOUNTED CUBICLE

NOTES:

- LOCATIONS AND SIZE OF COLUMNS TO BE DETERMINED DURING STRUCTURAL DESIGN.
- STAIRCASES AND LOBBIES SHALL COMPLY WITH BUILDING REGULATIONS ON PROVISION AND CONSTRUCTION OF REQUIRED STAIRCASE AND FIRE FIGHTING AND RESCUE STAIRWAY (IF REQUIRED).
- FIRE SERVICES FACILITIES FOR FIRE SPRINKLERS AT STAIRS AND CORRIDORS SHALL BE PROVIDED BY CUSTOMER WITHIN THEIR SITE LOT.
- ADEQUATE MECHANICAL VENTILATION INCLUDING AIR OUTLETS AND INLETS SHALL BE PROVIDED FOR TRANSFORMER BAY, 132kV RMU AND 11kV & LV CABLE RISER ROOM LINKED UP TO OPEN AIR.
- CABLE TRENCHES, DUCTS AND RISERS SHALL BE PROVIDED AMONG ROOMS WITH LV FACILITIES.
- EMERGENCY VEHICULAR ACCESS AND THREE-POINT TURN FOR FIRE ENGINE SHALL BE PROVIDED BY CUSTOMER WITHIN THEIR SITE LOT.
- 150mm(H) R.C. CURB SHALL BE PROVIDED AT DOORS AND METAL FENCES OF BAYS AFTER EQUIPMENT INSTALLATION.
- GREENERY AREA SHALL BE PROVIDED BY CUSTOMER WITHIN THEIR SITE LOT.
- A LAVATORY SHOULD BE PROVIDED WITHIN THE SUBSTATION OR FREE ACCESS TO LAVATORY AT CUSTOMER PREMISE SHOULD BE ALLOWED.
- 100mm(H) R.C. WITH 10mm(H) EMBEDDED BASE STEEL PLATE ARE REQUIRED UNDER 132kV RMU.
- 100mm(H) R.C. PLINTH IS REQUIRED UNDER 132/11kV TRANSFORMER.
- ALL EQUIPMENT SHOWN ARE INDICATIVE ONLY; EXACT MODEL, DIMENSION AND SETTING-OUT SHOULD BE DETERMINED AT ENGINEERING DESIGN STAGE.
- THIS DRAWING IS AN ILLUSTRATION EXAMPLE OF USING SF₆ GAS-INSULATED TRANSFORMER. ADDITIONAL FACILITY e.g. OIL INTERCEPTOR, WATER SPRAY PUMP ROOMS & ASSOCIATED FS WATER TANK ARE REQUIRED IF MINERAL OIL INSULATED TRANSFORMER IS USED.
- 10000mm(L) X 9000mm(W) TRANSFORMER BAY WITH MINIMUM 7500mm(H) RC SEGREGATION WALL SHALL BE PROVIDED IF MINERAL OIL INSULATED TRANSFORMER IS USED.
- DESIGN OF LV TRANSFORMER ROOM SHALL FOLLOW LATEST VERSION OF COP101.
- VENTILATION ASSESSMENT OF AND NOISE ASSESSMENT SHALL BE CONDUCTED BY THE CUSTOMER TO DETERMINE IF MECHANICAL VENTILATION AND / OR NOISE MITIGATION MEASURES(S) ARE REQUIRED.
- EXACT CLP PLANT ROOM DIMENSION SUBJECT TO THE COLUMN SIZE ACCORDING TO THE CIVIL DESIGN BY THE CUSTOMER.
- FS PROVISION SHALL BE DESIGNED BY THE CUSTOMER.

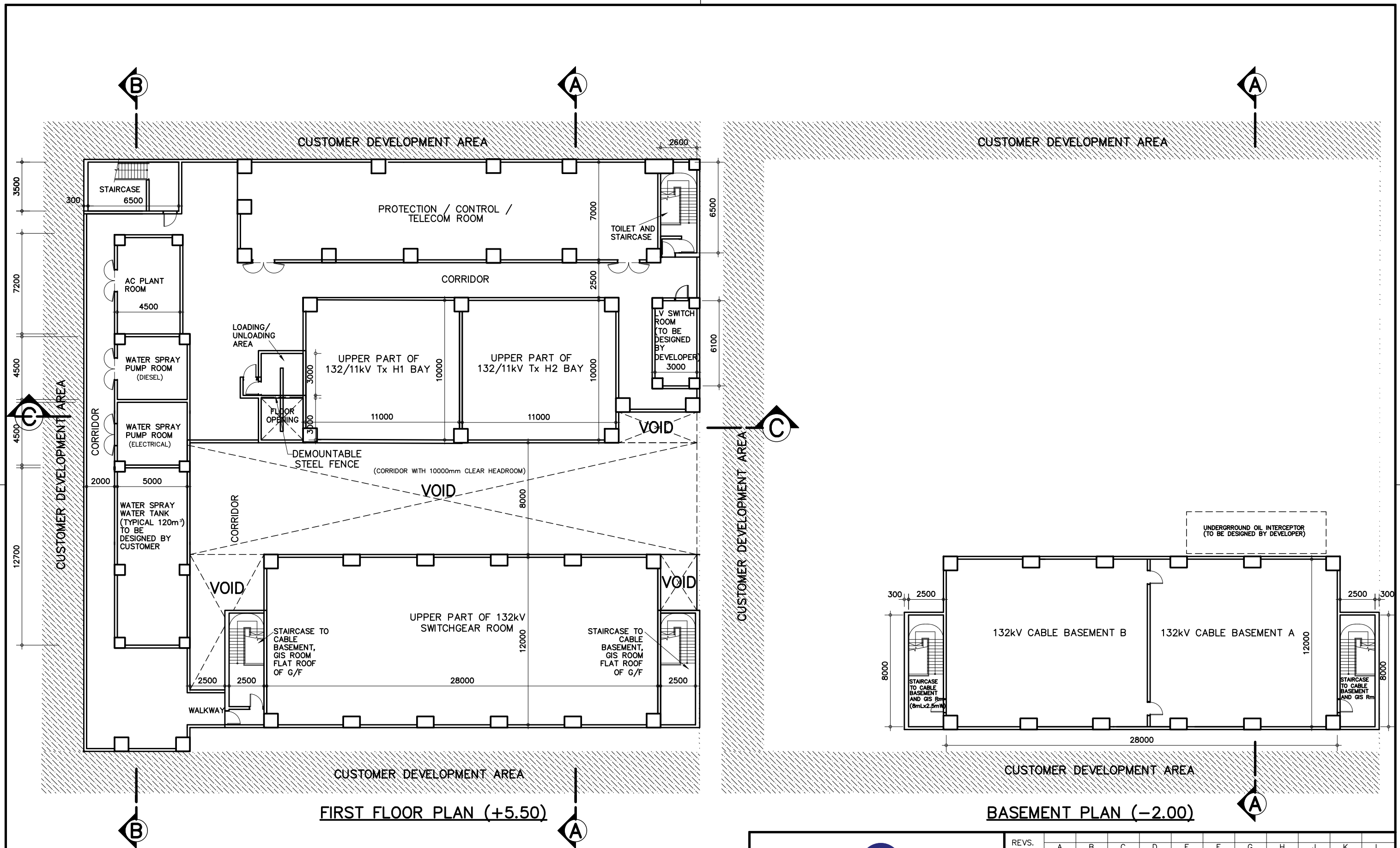
CLP 中電

DRAWN: T. TSE
CHECKED: N. C. IU
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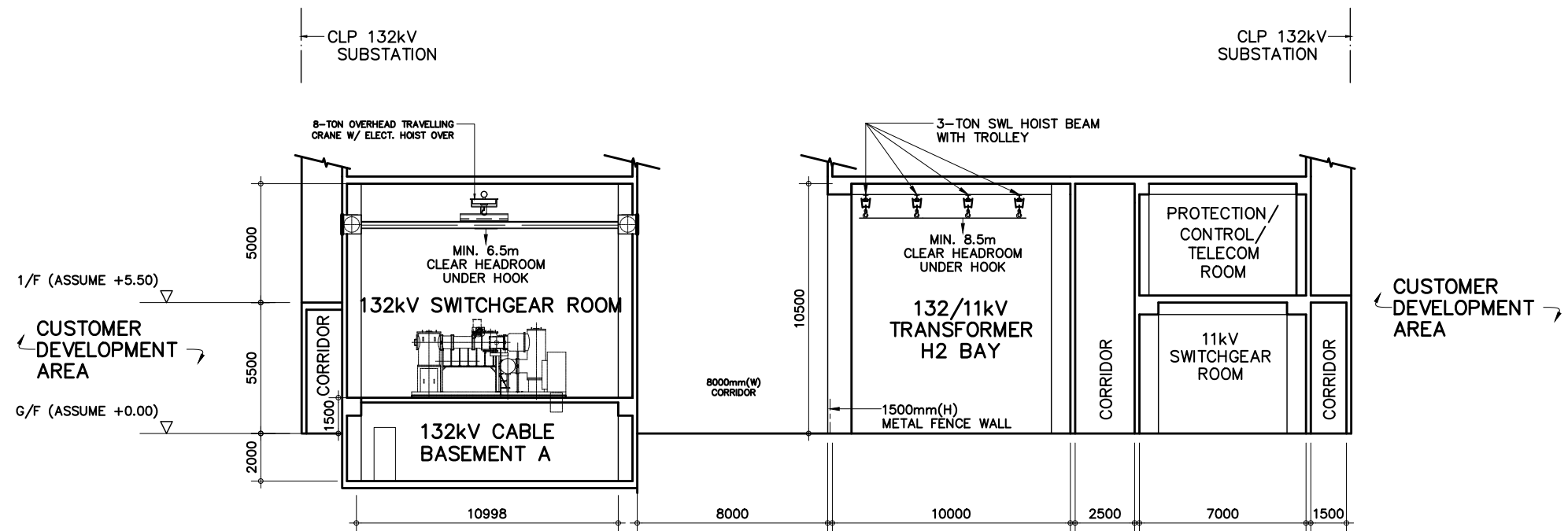
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APPROVED: S. C. LEUNG
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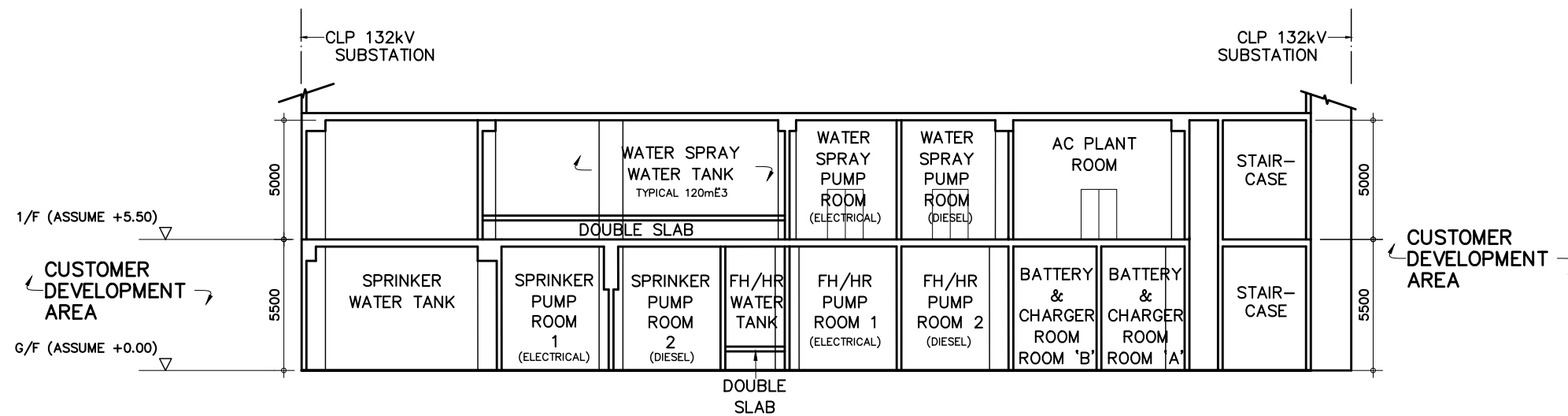
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TITLE : TYPICAL 132kV CUSTOMER SUBSTATION LAYOUT - 2 X 50MVA TxS & GIS (GROUND FLOOR)											



CLP 中電		REVS.	A	B	C	D	E	F	G	H	J	K	L
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DRAWN: T. TSE		DATE: 1 JUN., 2024											
CHECKED: N. C. IU		APPROVED: S. C. LEUNG											
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ASSET MANAGEMENT		PROJECT NO. CONTRACT NO.											
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SECTION A-A



SECTION B-B

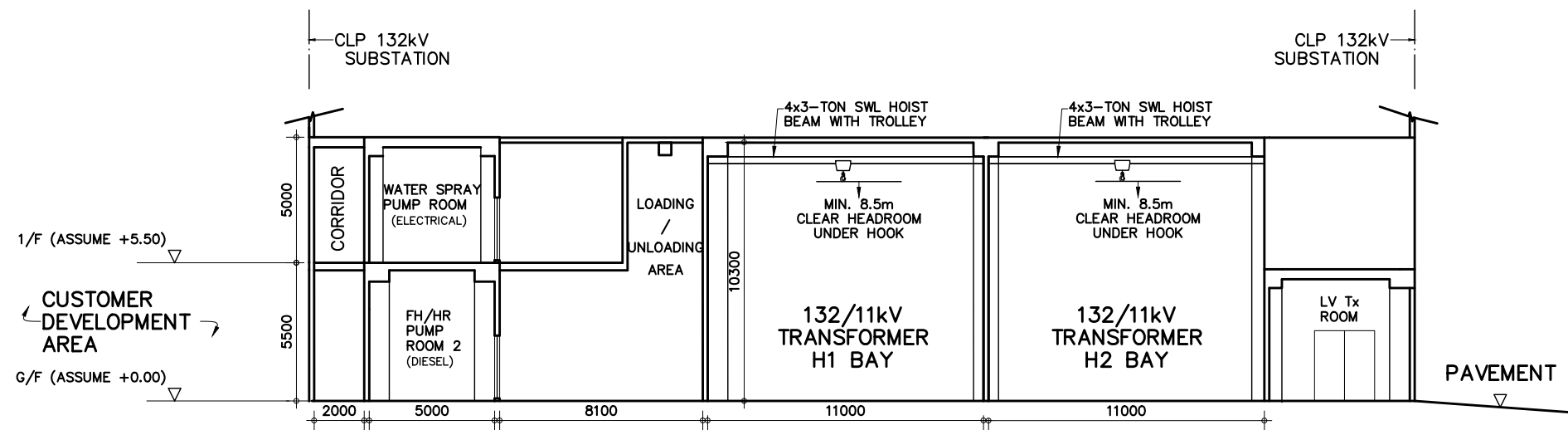


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CHECKED: N. C. IU
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SHEET(S) IN SET:

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PROJECT NO.						CONTRACT NO.					
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SECTION C-C



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CHECKED: N. C. IU	APPROVED: S. C. LEUNG
SCALE: 1 : 250	SHEET(S) IN SET:

ASSET MANAGEMENT