

DWG. NO.	SD-GIS-8-01A
01	05
REV.	0

## ARCHITECTURAL SPECIFICATION

## INTRODUCTION

The conceptual requirement of this building was initiated by combining all the specific concepts of the design which presents the scientific and mechanical functions, symbolic art and its dominance. The building is supposed to be designed considering energy conservation and sustainable architecture with low maintenance whilst maintaining the architectural value. Provided that there are any contradictory drawings, the contractor shall follow the architectural drawings as the main guideline and ask EGAT architect for advice and approval. The contractor shall be responsible if the architectural work that supposed to be notified in the architectural drawings is not shown or specified.

## REMARK

1. All dimension is in the metric system.
2. The referenced levels are as shown in architectural drawings.
3. The  $\pm 0.00$  m. is the road level in front of building.
4. size of the building can be design and shall be conform to proposal data
5. The height of specified rooms is for guideline.
6. Had there is any contradiction or deviation of the dimension, figures or marks, the contractor shall inform EGAT inspector and ask EGAT architect for advice.
7. The location of all the electrical board shall be in accordance with the electrical drawings.
8. The location of all the floor block-out shall be in accordance with the structural drawings.
9. In case there is contradiction between the location of the floor block-out, the electrical boards and architectural drawings, the contractor shall inform EGAT architect.
10. The contractor shall collect all documentation of guarantee from the manufactures and installers then submit to EGAT after the installation is complete.
11. The contractor shall select the manufactures and installers then submit for approval by EGAT
12. All details of material property shall principally conform to Specification No.3001 (Civil and Architectural work), if the characteristic and Specification No.3001 (Civil and Architectural work) notified differently then conform to the superior specification.

[illegible]

## FLOOR FINISHING

SYMBOL	DESCRIPTION	CHARACTERISTIC	STANDARD
F1	SOLVENT FREE SELF LEVELING EPOXY FINISHED RC. FLOOR	<ul style="list-style-type: none"> <li>- Material : Solvent free self leveling with solvent free primer</li> <li>- Thickness : Not less than 2.50 mm.thk. (excluding floor leveling)</li> <li>- Color : Specified later</li> <li>- Physical Properties (Epoxy) : <ul style="list-style-type: none"> <li>•Compressive Strength <math>\geq 60</math> N/mm<sup>2</sup></li> <li>•Tensile Strength <math>\geq 25</math> N/mm<sup>2</sup></li> <li>•Flexural Strength <math>\geq 17</math> N/mm<sup>2</sup></li> <li>•Chemical resistance : Non-Reaction</li> </ul> </li> <li>- With 5 years guarantee of material and installation.</li> </ul>	TIS 1026-2534(1991) ASTM C 579 or ASTM D 695 or BS 6319. ASTM C 307 or ASTM C 190 or BS 6319. ASTM C 580 or ASTM C 348 or BS 6319.
F2	SQUARE EDGE, UNPOLISHED CERAMIC TILE FINISHED RC FLOOR, WITH SAND WASHED BORDER	<ul style="list-style-type: none"> <li>- Floor tiles shall be Grade A</li> <li>- Size : 24"X24"or as indicated in the drawings.</li> <li>- Product classification : Group B1a</li> <li>- Water absorption : <math>E \leq 0.5\%</math></li> <li>- Chemical resistance, low concentrate acids and alkalis : Minimum class GLB</li> <li>- Color : specified later</li> <li>- Accessory Pieces : Unless otherwise specified on drawings, Provide caps, return, trimmers and other shapes required for complete finished installation</li> <li>- Sand washed border shall conform to characteristic of</li> </ul>	TIS 2508-2555(2012) ISO 13006 ISO 10545-3 ISO 10545-13
F3	STAMPED CONCRETE	<ul style="list-style-type: none"> <li>- Color hardener : Iron oxide pigment</li> <li>- Prevent the stamped surface from mould and lichens with Acrylic sealer.</li> <li>- Chemical resistance : Non-Reaction</li> </ul>	
F4	SAND WASHED SYSTEM ON RC FLOOR	<ul style="list-style-type: none"> <li>- 2-3 round sea grand without adulteration</li> <li>- Proportion of cement : gravels 1 : 3</li> <li>- The finished floor must be waxed twice minimum</li> </ul>	
F5	PLAN FINISHED RC FLOOR	<ul style="list-style-type: none"> <li>- Materials in accordance with section CONCRETE FOR STRUCTURES of part civil work</li> </ul>	





## REMARK

- The 100 mm, wide aluminium-PVC floor skirting shall be installed on the interior wall in GIS room
- Every edge of the different level shall be covered with 50 mm, PVC-step nosing.
- The 20 mm, wide PVC groove joint shall be installed on the exterior wall.
- The contractor must submit model and color of aluminium-PVC, PVC-step nosing, PVC groove joint for approval by EGAT before installation.
- The thickness of stainless steel rail shall be not less 2.00 mm.thk.
- The high flexible cementitious waterproofing coating material shall be applied to the loading area to prevent moisture from the ground

Specific properties

- \* Material : a cementitious, two component
  - Binder : cement
  - Resin : Polymer
- \* Tensile strength( ASTM D412-92) : > 1.2 N/mm<sup>2</sup>
- \* Elongation at break(ASTM D412-92) : > 250%
- \* Adhesion to concrete(DIN 1048, EN 1542 or ASTM 4541) : >0.55±0.05 N/mm<sup>2</sup>
- \* Resistance to water penetration(DIN 1048) : No water penetration
- \* Installed : 2 coated
- \* Crack Bridging : 4 mm.
- \* Non-toxic
- \* With 5 years guarantee of material and installation.

## WALL FINISHING

SYMBOL	DESCRIPTION	CHARACTERISTIC	STANDARD
	PLAIN-PLASTERED PAINTED CLC OR AAC WALL, RC WALL, RC COLUMN, RC BEAM, AND RC PARAPET	<ul style="list-style-type: none"> <li>- RC Wall, RC Column, RC Beam, and RC Parapet Materials in accordance with section CONCRETE FOR STRUCTURES of part civil work</li> <li>- For CLC , AAC , insulation concrete block or equivalents characteristic               <ul style="list-style-type: none"> <li>* Size : indicated in the drawings.</li> <li>* Density <math>\geq 600 \text{ kg/m}^3</math></li> <li>* Compressive strength <math>\geq 40 \text{ kg/m}^2</math></li> <li>* Fire resistance <math>\geq 2 \text{ hr}</math></li> <li>* Thermal conductivity : <math>&lt; 0.12 \pm 0.02 \text{ watt/m}^\circ\text{C}</math></li> </ul> </li> </ul>	TIS 1505-2541 TIS 1510-2541 TIS 2601-2556
	METAL SHEET WALLING (DOUBLE SKIN)	<ul style="list-style-type: none"> <li>- Double skin wall with Bolt system</li> <li>- Aluminium-zinc alloy coated not less than <math>150 \text{ g/m}^2</math> (AZ150)</li> <li>- The base metal(BMT) thickness shall not be less than 0.42 mm.</li> <li>- The Minimum yield strength of 550MPa (C550)</li> <li>- Finish coating               <ul style="list-style-type: none"> <li>*Front side : Primer not less than 5 micron and not less than 17-20 micron polyester resin on the top coat</li> <li>*Back side : not less than 10 micron polyester resin on the back side</li> </ul> </li> <li>- Color is specified later</li> <li>- With 10 years guarantee of installation.</li> </ul>	TIS 1128-2535 ASTM A792 or AS2728 or AS1397 AS 3566 Class 3 (Bolt)
	4 MM.THK ALUMINIUM COMPOSITE WITH FR	<ul style="list-style-type: none"> <li>- Skin Material: Aluminium Alloy 3,XXX Series</li> <li>- Core Material: fire rate material consisting of Aluminium trihydroxide which achieve the B1fire test</li> <li>- Finishing : Color specified later</li> <li>- Coating System :               <ul style="list-style-type: none"> <li>*Front side : Kynar 500 Resin based Polyvinylidene Difluoride(PVDF) or equivalent on the top side</li> <li>*Back side : Polyester Based Stove Enamel</li> </ul> </li> <li>- Coating Layer: 2 or 3 coats not less than 25 micron</li> <li>- Production method : Hot-Melt Bonding</li> <li>- Nominal Thickness : 4.0 mm.</li> <li>- Weight : <math>7.60 \pm 0.06 \text{ kg/m}^2</math> : 4.0 mm.</li> <li>- Standard Panel Sizes: <math>1250 \pm 20 \times 2440 \pm 50 \text{ mm}</math>.</li> <li>- Tensile strength : <math>&gt; 5.0 \text{ kg/mm}^2</math> : 4.0 mm.</li> <li>- Yield strength : <math>&gt; 4.5 \text{ kg/mm}^2</math> : 4.0 mm.</li> <li>- Elongation : <math>&gt; 5\%</math></li> <li>- Impact Resistance : <math>&gt; 1600 \text{ kg(Maximum Load)}</math></li> <li>- Deflection temperature : <math>&gt; 113^\circ\text{C}</math></li> <li>- Toxicity Test : PASS</li> <li>- With 10 years guarantee of material and 5 years guarantee of installation.</li> </ul>	ECCA(European Coil Coating Association) AAMA(American Aluminium Manufacture Association) BS476 part6 BS476 part7 UL94 ASTM E8 ASTM D638 ASTM D732 ASTM D648 ASTM E119 ASTM E108
	EXTRUDED ALUMINIUM LOUVERS	<ul style="list-style-type: none"> <li>- Model : Aluminium grilles</li> <li>- Highest quality extruded aluminium alloy to type 6063 or aluminium sheet or plate type AA3105 or/and AA1100</li> <li>- Systems consist of horizontal blades, vertical supports constructed</li> <li>- All aluminium louver supporting frames, blades end cap and associated components shall be manufactured from aluminium grade 6063-T5, AA3105, AA1100 or combination of above mentioned alloy. Recycled or reprocessed aluminium will not be acceptable</li> <li>- With the exception of fixing hardware, all components are to be manufactured from aluminium or stainless steel 304 to prevent corrosion</li> <li>- The aluminium extrusion main structure shall be not less than 2.00 mm.thk.or galvanized steel not less than 1.5 mm.thk</li> <li>- All aluminium louver major components shall be finished with a power coating system or acrylic stove enamel system paint finish</li> <li>- Finishing : Color specified later</li> </ul>	AA(Aluminium Association,U.S.A.) EN Standard ASTM standard JIS standard

## REMARK

- The CLC or AAC Block shall be not less than 10 cm. after plastered and shall be plastered on every sides
- For  $\Delta$  Silicone sealants and adhesives shall be of the highest quality and tested for strength, adhesion, weatherproofing, non-staining and durability for this specific application. Submit test data to the EGAT for approval. Provide custom color silicone as required by EGAT
  - For  $\Delta$  the silicone sealant shall have a 10 year guarantee of material
  - Other standard except as specified must be submitted for approval by EGAT
  - Other test reports may be required by EGAT if necessary
- CABINET NO. \_\_\_\_\_  
RUN NO. 18

**FOR BIDDING**

CABINET NO. V5  
RUN NO. 1815

FOR BIDDING ONLY

												ELECTRICITY GENERATING AUTHORITY OF THAILAND										
												DRAWN RUSSAMEE M.		VALIDATED <i>Pumphan</i> CHIEF, TRANSMISSION SYSTEM ENGINEERING DEPARTMENT		DRAWING NAME STANDARD 230kV GIS BUILDING						
												INITIATED JARUEK KH. <i>Jaruek</i>		RECOMMENDED <i>Jaruek</i> ASSISTANT DIRECTOR TRANSMISSION SYSTEM ENGINEERING DIVISION		DESCRIPTION OF DETAIL DRAWING						
												VERIFIED <i>Ngapad</i>		CONCURRED <i>Ngapad</i> DIRECTOR TRANSMISSION SYSTEM ENGINEERING DIVISION		DRAWING LIST, SPECIFICATION						
0	-	NEW STANDARD 230 kV GIS BUILDING									RUSSAMEE M.	JARUEK KH.	-	-	-	-	-	-	-	-		
REV.NO.	JOB NO.	JOB DESCRIPTION									DRAWN	INITIATED	VERIFIED	VALIDATED	RECOMMENDED	CONCURRED	APPROVED	DATE	JOB NO.	REPLACING DWG.NO.	DWG.NO.	01 REV.
																		28/9/14	-	-	SD-GIS-8-01A	05 0
											ASSISTANT GOVERNOR-TRANSMISSION SYSTEM ENGINEERING		DATE									