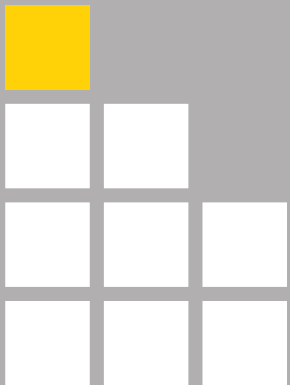


Green Urban Developers

WA3351 Caribbean Housing



PREFAB ...
PROCESS (A-Z)



INTRODUCTION

This document is the METHOD STATEMENT for the Light Weight Structural System. Foundation system, Steel Structural Installation method and ALC installation method will be explained here.

Considering the major advantages compare over conventional reinforced concrete building is the speed of construction. In order to maximize the advantage, pre-planning and erection sequence are crucial and need to be predetermined prior to the arrival of the steel members.

Looking forward on Besta™ ALC (Autoclaved Lightweight Concrete) Wall Panel is a sustainable green building materials for light, fast and durable method of construction. These wall panels are made of cement, lime, gypsum and aluminum additives to help create bubbles hence making the panel lighter and thermal efficient. The tongue and groove of these panels makes the joint more secure and tighter in terms of water penetrations and with its lightness in weight makes the installation more easier and faster.



CONTENTS

- 3** PREPARATION BEFORE INSTALLATION
- 4** FOUNDATION(SLAB ON GRADE)
- 5** COLUMN SETTING OUT
- 6** STEEL STRUCTURAL INSTALLATION
- 7** ALC WALL PANEL INSTALLATION
- 9** TOOLS

PREPARATION BEFORE INSTALLATION

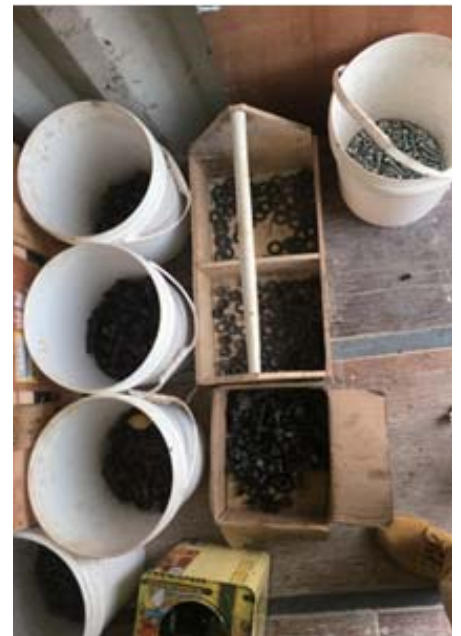
Visual Inspection on the physical condition of the items to be carried out, it is to be connect to us on any missing items and/or damages within 5 working days.



Pre-determine the zone of installation and steel members to be selected and grouped in the vicinity of that zone

Required primary and secondary beams, purlins, bolts and nuts are selected and gathered together

A List of equipment and storage for bolts and nuts is require to record the equipment are return by the end of the working day and the usage of nuts and bolts to ensure the sufficient of material online during the installation.



FOUNDATION (SLAB ON GRADE)

Simple foundation system is to be introduced with new light weight structural system.

Raft foundation is the best option to simplify the work and manage the time frame.

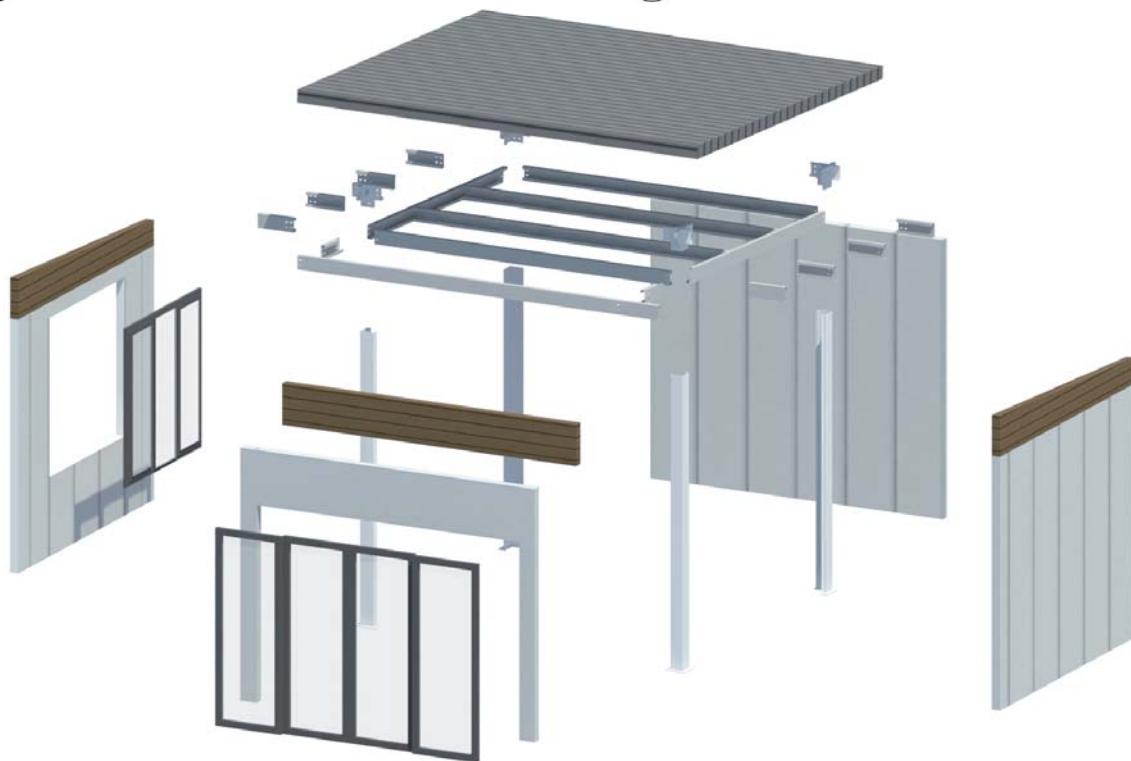
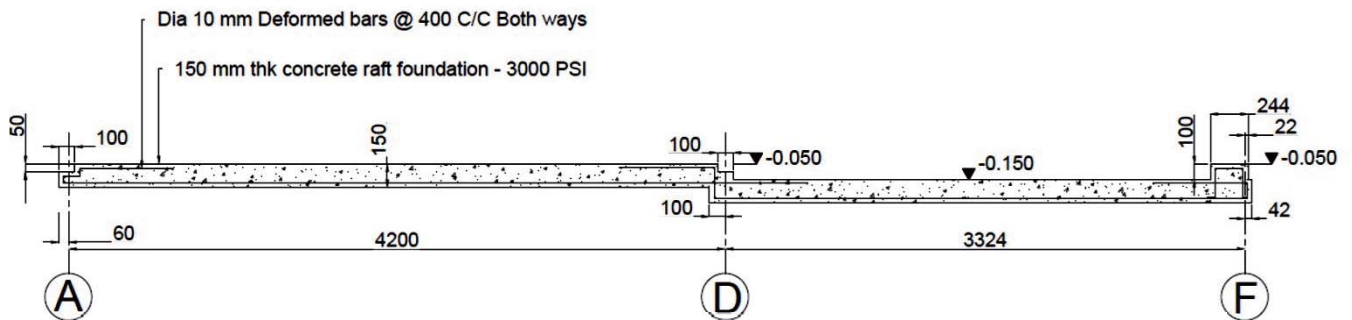
NEED TO...

prepare the Existing ground to Proceed with foundation construction

NO NEED TO DO...

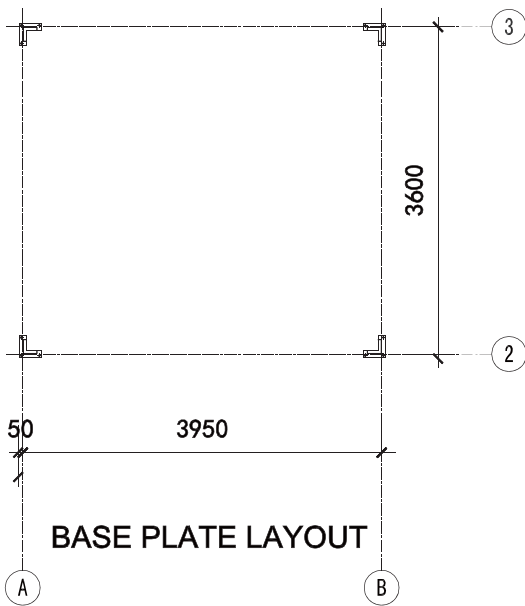
any unnecessary excavations for this type of foundation

△ NOT ONLY THE TIME FRAME BUT ALSO ADDITIONAL COST FOR EXCAVATION CAN BE SAVED



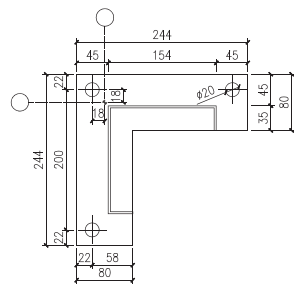
COLUMN SETTING OUT

* Column layout plan will be provided for the client to set out the position of the columns.

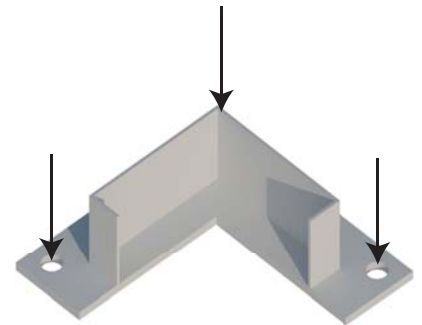


Column Layout Plan

1. Shows the position of each column setting out distance from the gridline
2. Shows the measurement of the column base plate and the bolt holes
3. Shows the detail and type of anchoring system



BASE PLATE DETAIL AND LOCATION



1. Setting out need to be done for column locations with reference to Grid lines and drawing
2. Bolt locations will be marked on concrete surface and drill with Hammer drill.
3. Install the chemical bolts



Cleaning with Blower.
Insert chemical tube and
break it



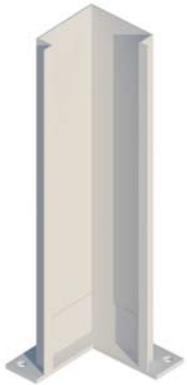
Drill chemical bolt down
to mix with the chemical-
are even level



Clean the excess chemical.
To ensure all nuts
height are even level

STEEL STRUCTURAL INSTALLATION

- ① Identify the columns by matching the number on the drawings. Then start to fix the steel columns.
- ② Next to fix connectors top of the column as per the drawing.
- ③ After that “C” purlins will be used as beams and connect as per the provided shop drawing



STEEL COLUMN



CONNECTOR



TYPICAL STEEL BEAM

- ① Typical column & beam connection as follow.
- ② There is another type of steel beam. It can be adjusted according to the slope of the roof.



TYPICAL COLUMN & BEAM CONNECTION



STEEL BEAM FOR ROOF SLOPE

ALC WALL PANEL INSTALLATION

01 | HANDLING

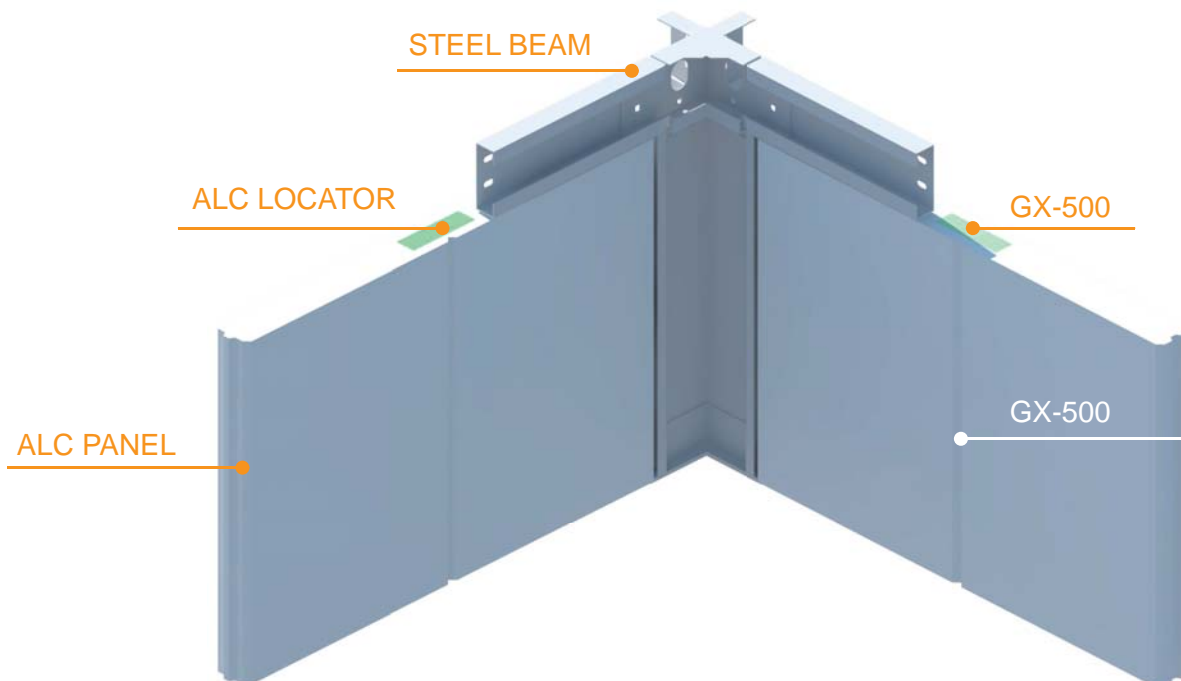
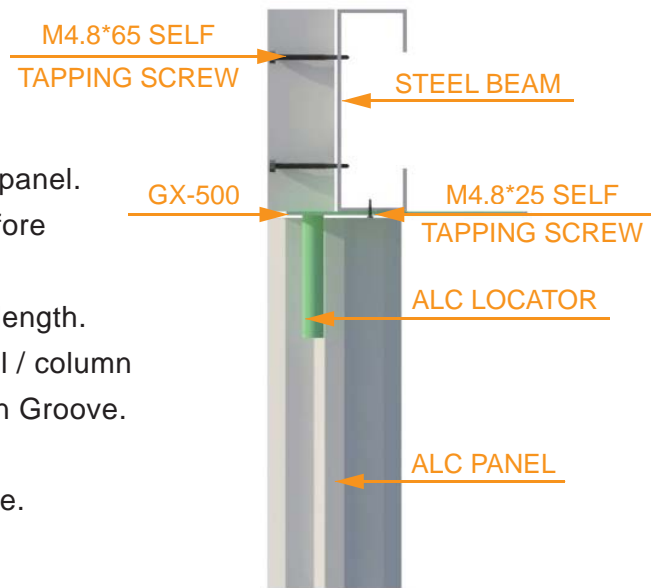
- ⦿ Besta™ ALC Wall Panel recommends using mechanical equipment or a trolley to move the panels around the working area.

02 | CUTTING

- ⦿ Wearing respirators and eye protective device to protect from in-hail dust which contains respirable crystalline silica.

03 | INSTALLATION

- ⦿ Setting out will be done for walls in ground floor.
- ⦿ Two ALC locators will be fixed at the both ends of panel.
- ⦿ Grout will be applied on top of the ground floor before wall panel is install.
Also, Grout on ALC panel groove along the panel length.
- ⦿ Panel will be erected and align with previous panel / column and squeeze until grout come out which applied on Groove. Then Scrape off excess grout.
- ⦿ Repeat all procedured until wall section is complete.





◀ **STEP 1**
Fixing of ALC Locator



STEP 2 ▶
GX500 application before
install wall panel



◀ **STEP 3**
ALC panel installation and
push together















STEP 4 ▶
After fixing of ALC wall panel

TOOLS

Note:

The following equipment and tools that are listed above but are not limited to the completion of the installations.

	Shear Wrench		Torque Wrench
	Dumpy level with staff		Magnetic Plumb Line
	Measuring tape		Spannar
	Hammer		Round 'Chisel'
	Sling belt of correct capacity		Shackles of correct capacity
	Rope		Spirit level

www.greenurbandevelopers.org
Green Building System

COPYRIGHT © 2020

