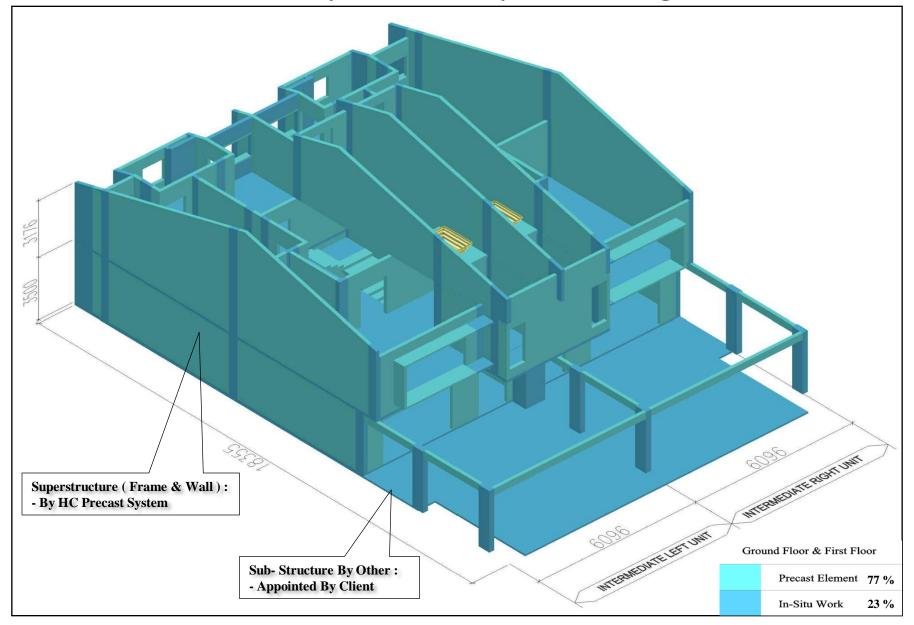
Double Storey HC Precast System Drawing - 3D



INDUSTRIALISED BUILDING SYSTEM (IBS) is a system not a machine or component

IMPORTANT ELEMENTS REQUIRED TO COMPLETE A BUILDING

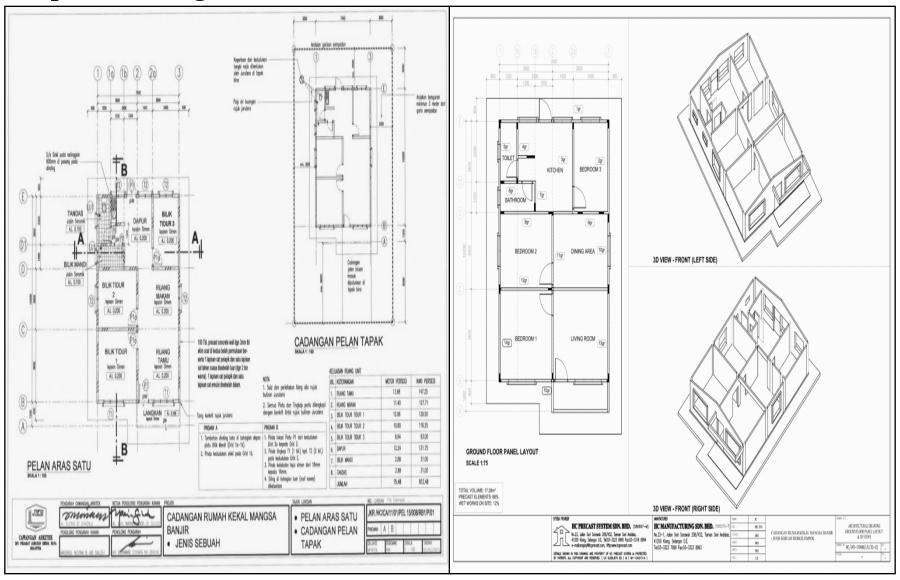
SEQUENCE OF WORK: 5 Steps & No Variation Order

| Step 1 | Step 2 | Step 3 | Step 4 | Step 5 |
|-------------------------------------|----------------------|---------------|--------------------------|----------------------------|
| Drawing Conversion (2D to 3D) | Mould Fabrication | Production (1 | Delivery Decide by Clie | Installation Numbering nt) |

Speed, Quality & Environment

Step 1 : Drawing Conversion 2D To 3D

- 1 Month

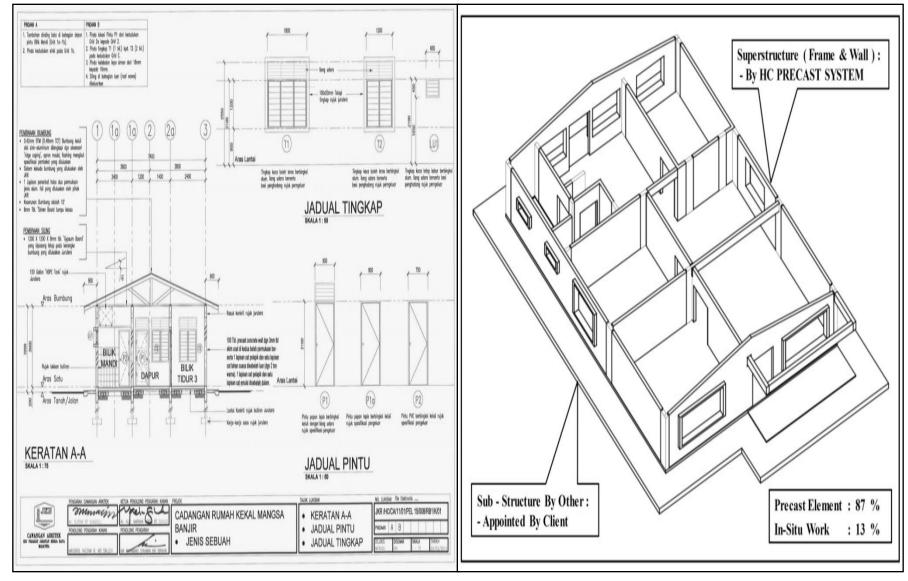


To

System 3D

Step 1 : Drawing Conversion 2D To 3D

- 1 Month

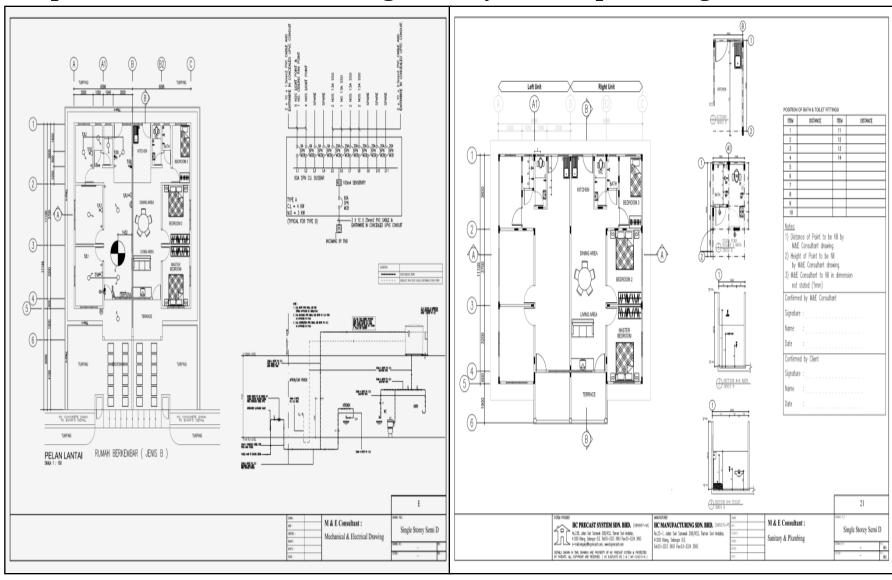


Original 2D

To

System 3D

Step 1a: M & E Conversion original to system shop drawing 1

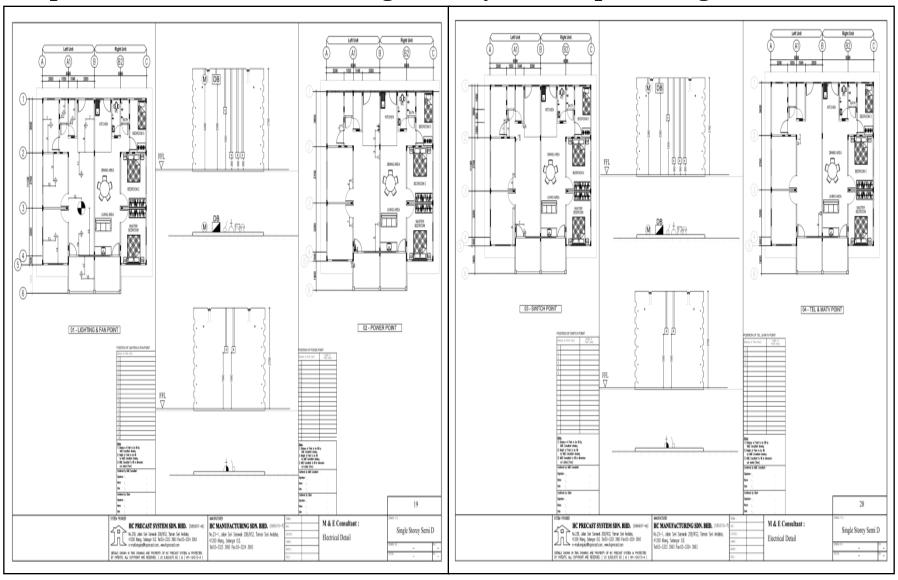


Original Drawing

To

System Shop Drawing - 1

Step 1a: M & E Conversion original to system shop drawing 2



Original Drawing

To

System Shop Drawing - 1

Step 2: Mould Fabrication

- 1 Month



1. Designed by You

2. Coping 1 Cast

3. Chequer Plate (Tiling)



4. L shape Panel

5. Door Frame 1 Cast

6. Half Slab



Future development 13 acres: 2,500 to 3,500 units of single storey (1000 ft2) per year

Existing production 8 acres: 1,800 to 2,500 units of single storey (1000 ft2) per year

Single Storey Bungalow Jalan Kebun Klang, Selangor

1 Units Work Programme **Industrialized Building System** Sequence Production, Delivery, **Installation & Quality Control Schedule** Noted:

1. Dismantled wall prop

: 3 days after casting (excld)

2. Dismantled column mould

: 1 days after casting (excld) : 3 days after casting (excld)

3. Dismantled beam mould 4. Temporary support stair cas landing,

PC.beam, in-situ beam & floor slab : 28 days after casting (excld)

| | Capa 1 Bay = 170m x 4.5m | acity: | sita/day | | 2 | e 4 | | <u> </u> | 8 6 6 | 10 | 2 2 | 5 4 01 | /01/ ½ | 2010 | 6 | 8 5 | 77 | 3 4 | 55 | 92 2 | 88 | 62 | 31 | | 3 5 | [4] | <u>.</u> | 01/0 | 2/20 | 016 | = | 7 5 | 4 |
|------|---|------------------------------|-----------------------------|------|-----|-----|-------------|---|----------|----|---------|-----------|-----------|------|-------------------|-----|----|-----|----|----------|----|----|----|-----|-----|-----|----------|--------|------|-----|------|----------|----|
| | 2 Bay = 170m x 4.5m 2 Bay = 170m x 4.5m 3 Bay = 170m x 4.5m | x 2 Line = 6 un | its/day | | | | | Ш | | | | | | | | | П | | | <u>T</u> | | | | Ш | | Ш | | | | Γ | | <u>T</u> | |
| Bill | Description | No of workers per Team | No of Worker Required | Line | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Installation Side Mould, Door | 5+0 | 6 | L 1 | | | 1 | | | | \prod | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Frame & Window Opening | 5+0 | 0 | L 2 | | | \prod | | | | П | | | | П | T | П | | П | Τ | | | | П | | П | T | | | Τ | П | Τ | |
| 2 | Installation Rebar | 5+0 | Bill 1 | L 1 | | | | 1 | | | П | | | | | | | | П | | | | | | | | | | | | | | |
| 2 | installation Redar | 3+0 | DIII 1 | L 2 | | | П | П | | | П | | Π | | П | T | П | | П | Τ | | | | П | | П | T | | Τ | Τ | П | Τ | |
| 3 | Installation Plumbing Casing & M&E Concuit | 1+0 | _ | L 1 | | | | 1 | | | П | | | | | | П | | П | | | | | | | | | | | | П | | |
| 3 | (by other - appoint Client) | (by other) | 2 | L 2 | | | П | | | | П | | | | | | П | | П | | | | | П | | П | T | | | | П | | |
| | G & W.H.D. I | 0.0 | D.11 4 | L 1 | П | | П | П | 1 | | П | T | T | | П | T | П | | П | T | | | | П | | П | T | | T | T | П | T | |
| 4 | Casting Wall Panel | 8+0 | Bill 1 | L 2 | П | | \prod | Ħ | T | | П | T | | | П | | П | | П | T | П | | | П | | П | T | | | T | П | Ť | |
| | | | 6 | | | | 6 I Prod |)ays | | 7 | Days | : Curi | ng | | | | | | | | | | | | | | | | | | | | |
| | | | | | _ | | | | | | | 0.1 | /01 | 201 | | | | | | | | | | _ | | | | 0.1./0 | 2/2/ | 016 | | | |
| | Delivery (| Transport) | | | 1 2 | 3 | · w 4 | 0 | 8 6 | 10 | 12 | 5 41 | 15 17 | 2010 | 61 | 21 | 22 | 24 | 25 | 26 | 28 | 30 | 31 | - , | 2 8 | 4 | s v | 01/0 | ∞ 0 | 2 2 | 11 5 | 13 | 14 |
| | | | | | | | | | | | | | | - | $\cdot \cdot $ | | | | | | | | | | | | | | | | | | |

Single Storey Bungalow Jalan Kebun Klang, Selangor

1 Units Work Programme **Industrialized Building System** Sequence Production, Delivery, **Installation & Quality Control Schedule**

1. Dismantled wall prop

: 3 days after casting (excld) 2. Dismantled column mould

: 1 days after casting (excld) : 3 days after casting (excld)

3. Dismantled beam mould

4. Temporary support stair cas landing, PC.beam, in-situ beam & floor slab : 28 days after casting (excld)

| | Delivery (T | Transport) | | | - | 2 6 | 4 | 9 | 7 | 6 | 10 | 12 | E 4 | 1/01 | 1/20 | 16 ∞ ≘ | 20 | 21 | 23 | 77 | 26 | 77 | 20 | 30 | 31 | 2 | 6 | 9. | 9 | 02/2 . ∞ | 016 • = | II | 13 13 | 14 |
|------|---|--------------------------|--------------------------|--------|-----------------|-------|------|------|-----|---|----|-----|------------|-------------|-------------|-------------------|----|----|----|-----|----------------------|-----|-----|----|-----|---------------------|-----|-----|----|-------------|-------------|----|-------|----|
| | ecast Element : 86 % et Work : 14 % | | l / Concret 4.458 m3 | • | PC In- PC | sitı | ı co | olun | nn | : | 5 | .76 | 7 n 9 m | 13 / 3 / | 37 6 | nos nos nos | s | | 1 | Hal | situ lf S situ | lal | ь | | : 2 | 0.7 29.0 38.4 | 88 | m3 | 13 | | | | | |
| | Description | No. of workers / Team | No of Worker Required | Crance | - | ۲۱ ۳۰ | 4 | 9 | 2 8 | 6 | 10 | 17 | E 4 | 1/01 | 1/20 = = | 16 <u>∞</u> º | 20 | 21 | 3 | z x | 36 | 77 | 8 8 | 30 | 31 | 7 | e - | . 3 | 9 | 02/2 ∞ | 2016 • = | = | 13 | 14 |
| 1 | Survey setting out & level sim plat installed - 1 unit | 2+0 | 2 | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| 2 | PC wall installation (GF) - 1 unit | 4+1 | Bill 1 + 4 | CR 1 | | | | | | | | | | | | П | | 1 | | | | | | | | | | | | | | | | |
| 3 | Filled expending cement mortar (GF) - 1 unit | 2+0 | Bill 2 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| 4 | Column rebar install (GF) - 1 unit | 5+0 | Bill 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Column mould, P.beam & in-situ beam install (GF) - 1 Unit | 5+0 | Bill 2 | CR 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| 5.1b | Dismantled in-situ column mould, PC beam & in-situ beam mould (GF) 1 Unit 1 day after casting (column) 3 days after casting (beam) 28 days curing | 5+0 | Bill 2 | CR 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| 6 | Column & beam casting (GF) - 1 Unit | 5+0 | Bill 2 | CR 1 | | | Ш | | | | | | | | | | | | | - | - | | | | | | | | | | | | | |
| 7 | RC flat roof / cantiliver corridor mould install - 1 unit/set | 5+0 | Bill 2 | | | | | | | | | | | | | | | | | | - | 1 | Ι | | | | | | | | | | | |
| 8 | R.C flat roof / half slab install - 1 unit/set | 5+0 | Bill 1 + 4 | CR 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | By other RC flat roof laying M&E conduits - 1 unit | | | | | | | | | | | | | | | | | | | | | | - | , | | | | | | | | | | |
| 10 | RC flat roof rebar install - 1 unit | 5+0 | Bill 2 | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| 11 | RC flat roof casting - 1 Unit | 5+0 | Bill 2 | CR 1 | | | | | | | | | | | | | | | | | | | | | - | | | | | | | | | |
| | | | 6 | | | | | | | | | | | | | | | | | 1 | 0 6 | lay | /s | | | | | | | | | | | |

Accessories Required & Guide: 1 units Single Storey Bungalow

| Bill | Description | Quantities (nos / set) | Drawing No |
|------|---|--------------------------|------------|
| 2.1 | Ground floor wall prop | 64 | |
| 5.1 | Ground floor Column Mould | 37 | |
| 5.1a | Ground floor PC bean & in-situ Beam Mould Support (scaffolding) | 12 | |
| 5.2 | Ground floor PC bean & in-situ Beam Mould Prop | 12 | |
| 7.1 | PC patty wall prop | | |
| 9.1 | Patty wall column mould | | _ |
| | | | |

| Bill | Description | No. of workers / Team | Work done / Day |
|------|---|--------------------------|--------------------------|
| 1 | Survey setting out & level sim plat | 2.+0 | 30 - 50 pcs panel |
| 2 | Wall Panel Installation | 4+1 | 30 - 50 pcs panel |
| 3 | Fill in Expandite Concrete | 2+0 | 20 - 30 pcs panel |
| 4 | Column Rebar Installation | 5+0 | 40 - 60 nos column |
| 5 | Column Mould Installation with Precast Beam & In-situ Beam (IF) | 5+0 | 40 - 60 nos column |
| 6 | Column/Beam Casting | 5+0 | 4-6 m3 |
| 7 | Column Mould Dismantle | 5+0 | 40 - 60 nos column |
| 8 | Precast Beam & In-situ Beam Installation | 5+0 | 20 - 40 nos precast beam |
| 9 | Mobile Crance 25Ton Panel Installation | | |
| 10 | Mobile Crance 20Ton Casting & Dismantled | | |

Step 3 : Production (Decide by Client)

- 7 to 9 units / day



Every Truck

Every 20m3

Casting & Leveling

Mould Dismantling



Rebound Hammer Test

Panel Lifting

Vertical Curing 7days

Proper Storage Yards

Step 4 : Delivery (4 Options)

- Decide by Client



Logistic Option (Decide by Client)

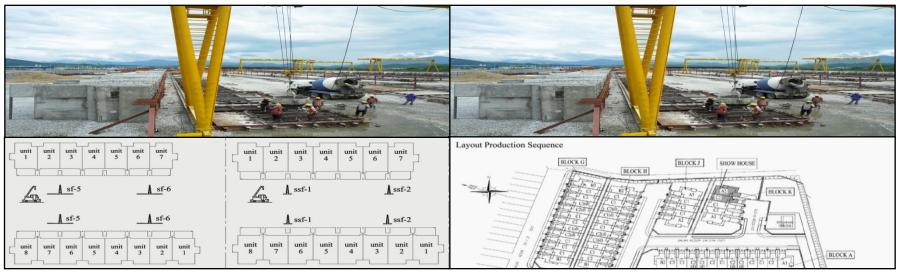
- 1 Option 1
 - Bay yard (factory) to block yard (project site)
- 2 Option 2 : Advance Casting
 - Bay yard (factory) to site yard (project site)
- 3 Option 3: Advance Casting
 - Storage yard (factory) to block yard (project site)
- 4 Option 4: Advance Casting
 - Storage yard (factory) to site yard (project site)

Notes:

- a) Client / Consultant / Main contractor need to choose which option to be used before production.
- b) Rate for RM 900.00 / m3 includes for option 1 & 3.
- c) An additional of RM 30.00 / m3 need to be charges for option 2 & 4
- d) Crusher run base to be provided at site yard for option 1 4.

Step 4a : Delivery (4 Options)

- Decide by Client



1. Bay Yard to Block Yard

2. Bay Yard to Site yard (project) – Advance Casting

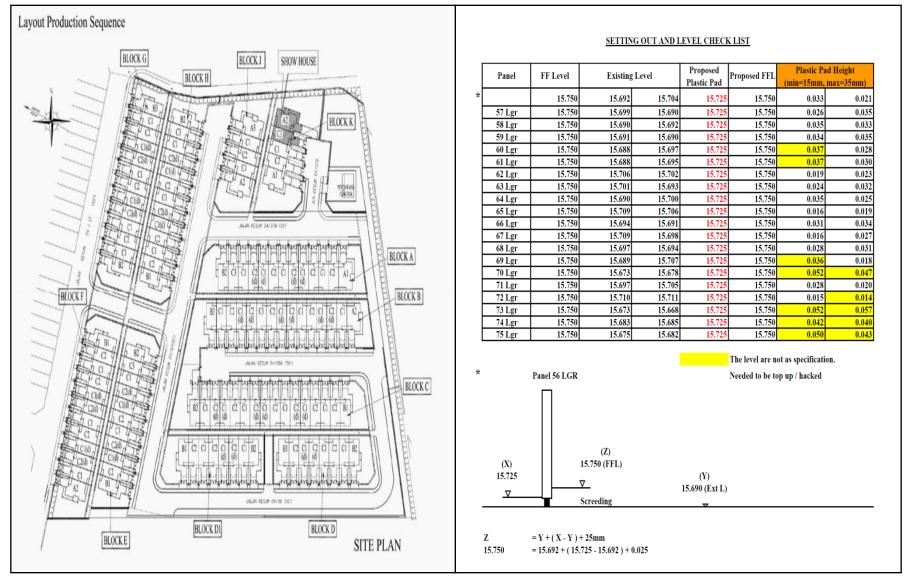


3. Storage Yard (factory) to Block Yard - Advance Casting

4. Storage Yard (factory) to Site Yard (project) - Advance Casting

Step 5 : Installation

- Decide By Client

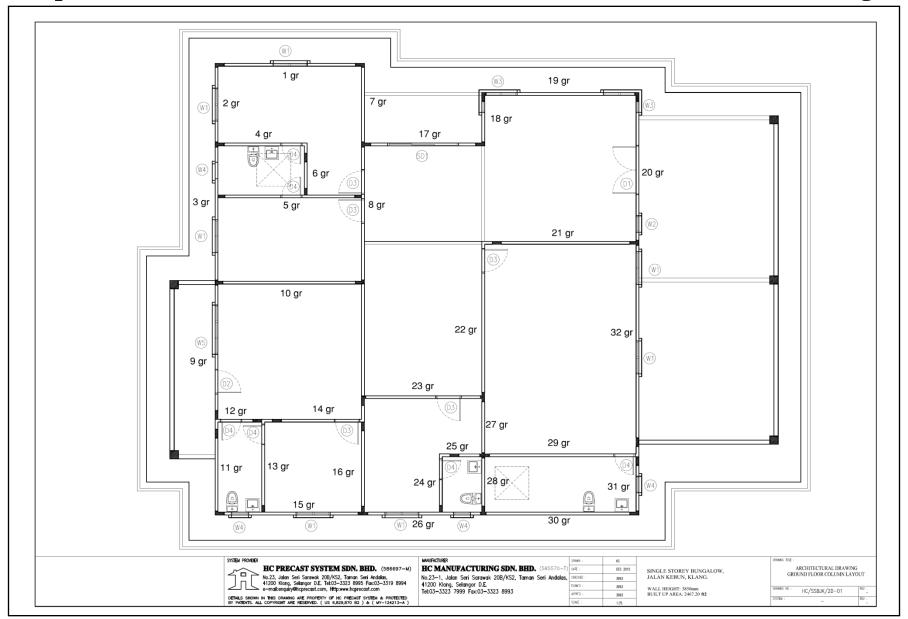


Sequence Block by Block

One Time Adjustment

Step 5a: Installation

- Numbering



Step 5b: Installation



1. Panel Guide

2. Panel Installation

3. Wall Prop installation



4. Vertical Adjust

5. Expending Cement

6. Rebar Installation

Step 5c: Installation



7. Mould Installation

8. Wet joint Casting

9. Mould Dismantling



10. Half Slab installation

11. Rebar Install

12. RC Flat Roof Casting

Step 5d : Over View



No Variation Order



Absolutely no Variation Order (V.O) due to :-

- No material wastage (minimal concreting at site)
- Accurate estimation by 3D drawing of building precast elements
- -(wall, beam, staircase & partition) compared to bricks,
- -reinforcement work and concreting at site.

COUNTRY: Macro Economy & Green

- 1. One of the way to improve the OUTFLOW OF CURRENCY is the utilization of INDUSTRIAL BUILDING SYSTEM (IBS).
 - "IBS is a system which suit all architectural demands & not a machine or component "
- 2. If we talk about lowering house prices, what is the best way to do it? The best way is to build houses faster and cheaper. One of the ways is by using Industrial Building Systems (IBS).
- 3. The low usage of IBS in Malaysia is due to the lack of enforcement besides other shortcoming of IBS adoption. If independent enforcement is based on the contracts awards, the usage of IBS will higher.
- 4. Industrialised Building System is a system not a machine or component. Responsibility of the building should not have many different mix system and manufacture products.
- 5. Q-Lassic or Conquas should be carried-out upon the completion of the superstructure works (frame & wall) instead of upon of completion finishing work.
- 6. System provider and manufacturer should provided installer of the building precast element.
- 7. Same concept applies when we buy computer and hardware.
- 8. IBS Superstructure In Malaysia 3 in 1: HC PRECAST SYSTEM.
 - Load Bearing Wall + Modular Shear Keys Wet Joint + Box System.
 - Speed, Quality & Environment.

IBS Superstructure In Malaysia 3 in 1

Load Bearing Wall



Modular Shear Keys Wet Joint



Box System



Single Storey Bungalow RM 125,000.00 3,891.31 ft2 / Wall High 4.0m / R.C Flat Roof Completed In 10 Days With 6 Workers Precast Element 86 %, Wet Work 14 %

HC PRECAST SYSTEM

- The wall is designed to provide adequate fire resistance according to demand (with minimum 2 hours as per BS8110)
- The system is designed and approved by PE endorsed by independent checker
- Thickness of the wall can be customized according to requirement
- Our design and casting are following strictly to British Standard

Scopes Of Works For Superstructure : Frame & Wall

Included:

- Supply & install.
- Superstructure design calculation.
- Shop drawing for M&E location layout related to panel wall casting. (Subject to client / consultant confirmation)
- Setting out (panel): TBM for each block & 4+2 Boundary point per unit must be provided.
- Mobile crane.

Excluded:

- Substructure design by others.
- Contractor All Risks Insurance.
- Security of our material & system works.
- Temporary water & electricity supply.
- Quarters for workers.
- Access road at project site.
- Storage yard at project site: 50mm thick crusher run base.
- Supply & install metal door & window frame.
- Supply & install M&E conduit.
- Skim coat.

Easy & Fast To Compare Our System Superstructure Price

Cost Comparison : Double Storey House

| Item | Con | ventiona | ıl | | |
|------|----------------------------------|----------|-----|------|--------|
| Item | Description | Unit | Qty | Rate | Amount |
| 1 | Ground Floor Column | | | | |
| | a) Concrete | m3 | | | |
| | b) Formwork | m2 | | | |
| | c) Rebar | kg | | | |
| 2 | 1st Floor Beam | | | | |
| | a) Concrete | m3 | | | |
| | b) Formwork | m2 | | | |
| | c) Rebar | kg | | | |
| 3 | Staircase | | | | |
| | a) Concrete | m3 | | | |
| | b) Formwork | m2 | | | |
| | c) Rebar | kg | | | |
| 4 | 1st Floor Slab | | | | |
| | a) Concrete | m3 | | | |
| | b) Formwork | m2 | | | |
| | c) Rebar | kg | | | |
| 5 | 1st Floor Column | | | | |
| | a) Concrete | m3 | | | |
| | b) Formwork | m2 | | | |
| | c) Rebar | kg | | | |
| 6 | Roof Beam & Party Wall Column | | | | |
| | a) Concrete | m3 | | | |
| | b) Formwork | m2 | | | |
| | c) Rebar | kg | | | |
| 7 | Wall | | | | |
| | (Internal,external & party) | | | | |
| | a) Bricks | m2 | | | |
| | b) Plaster | m2 | | | |
| | c) Coping | m | | | |
| | d) Lintol | m | | | |
| | Total Amount : | | | | |

| | HC Pro | cast Sys | tem | | sub 1 |
|------|--|----------|-----|------|--------|
| Item | Description | Unit | Qty | Rate | Amount |
| 1 | Ground Floor Column a) Concrete b) Formwork (included) c) Rebar (included) | m3 | | | |
| 2 | 1st Floor Beam a) Concrete b) Formwork (included) c) Rebar (included) | m3 | | | |
| 3 | Staircase a) Concrete b) Formwork (included) c) Rebar (included) | m3 | | | |
| 4 | 1st Floor Slab a) Concrete b) Formwork (included) c) Rebar (included) | m3 | | | |
| 5 | 1st Floor Column a) Concrete b) Formwork (included) c) Rebar (included) | m3 | | | |
| 6 | Roof Beam a) Concrete b) Formwork (included) c) Rebar (included) | m3 | | | |
| 7 | Wall - 120mm thick (Internal,external & party) a) Concrete =m2 x 0.12m | m3 | | | |
| | Total Amount : | | | | |

Easy & Fast To Compare Our System Superstructure Price

Cost Comparison : Single Storey House

sub 1

| T4ow- | Conven | tional | | | | Itarr | HC Preca | st Systen | 1 | | |
|-------|-------------------------------|--------|-----|------|--------|-------|------------------------------|-----------|-----|------|--------|
| Item | Description | Unit | Qty | Rate | Amount | Item | Description | Unit | Qty | Rate | Amount |
| 1 | Ground Floor Column | | | | | 1 | Ground Floor Column | | | | |
| | a) Concrete | m3 | | | | | a) Concrete | m3 | | | |
| | b) Formwork | m2 | | | | | b) Formwork (included) | | | | |
| | c) Rebar | kg | | | | | c) Rebar (included) | | | | |
| 2 | Roof Beam & Party Wall Column | | | | | 2 | Roof Beam | | | | |
| | a) Concrete | m3 | | | | | a) Concrete | m3 | | | |
| | b) Formwork | m2 | | | | | b) Formwork (included) | | | | |
| | c) Rebar | kg | | | | | c) Rebar (included) | | | | |
| 3 | Wall | | | | | 3 | Wall - 100mm thick | | | | |
| | (Internal,external & party) | | | | | | (Internal, external & party) | | | | |
| | a) Bricks | m2 | | | | | a) Concrete | m3 | | | |
| | b) Plaster | m2 | | | | | $= \dots m2 \times 0.10 m$ | | | | |
| | c) Coping | m | | | | | | | | | |
| | d) Lintol | m | | | | | | | | | |
| | Total Amount : | | | | | | Total Amount : | | | | |

Cost comparison of superstructure available online at our website

HC Precast System

a) Frame
(RM 3,987 / 263,90m2)
b) Wall
(RM 19,764.00 / 263,90m2)

Single Storey Semi-D House

- Comparison of Superstructure Frame & Wall
- Conventional vs HC Precast System

| Conventional : Original Design | |
|--------------------------------|--|
| (Current Rate - July 2014) | |

| | | _ | | | ,, |
|------------|---|------|-----------------|--------|----------------|
| PAGE | DESCRIPTION | UNIT | RATE | | TYPE B |
| REF | | | (RM) | QTY | AMOUNT (RM) |
| | BILL NO. 1 - REINFORCED CONCRETE FRAME | | ()) | | (|
| | REINFORCED CONCRETE (GRADE 25-20 MM AGGREGATE) as described | | | | |
| SUP/1/1/A. | In column and stiffeners | М3 | 280.00 | 1.96 | 548.80 |
| SUP/1/1/B. | In roof beam | М3 | 280.00 | 4.94 | 1,383.20 |
| | SAWN FORMWORK as described | 1 | | | |
| SUP/1/1/C. | To sides of column and stiffeners | M2 | 35.00 | 40.08 | 1,402.80 |
| SUP/1/1/D. | To sides and soffit of roof beam | M2 | 35.00 | 84.79 | 2,967.65 |
| | MILD STEEL ROD REINFORCEMENT as described | | | | |
| SUP/1/1/E. | 10 mm Diameter rod in column and stiffeners as links | Kg | 3.40 | 25.17 | 85.58 |
| SUP/1/1/F. | 6 mm Ditto | Kg | 3.40 | 51.80 | 176.12 |
| SUP/1/1/G. | 6 mm Diameter in roof beam ditto | Kg | 3.40 | 103.89 | 353.23 |
| | HIGH TENSILE STEEL ROD REINFORCEMENT | 1 | | | |
| | In Column and Stiffeners | | | | |
| SUP/1/2/A. | 12 mm Ditto | Kg | 3.40 | 235.28 | 799.95 |
| | In Roof Beam | 1 | | | |
| SUP/1/2/B. | 16 mm Diameter rod | Kg | 3.40 | 89.11 | 302.97 |
| SUP/1/2/C. | 12 mm Ditto | Kg | 3.40 | 472.65 | 1,607.01 |
| | BILL NO. 3 - WALLS AND PARTITIONS | 1 | | | |
| | REINFORCED CONCRETE | | | | |
| SUP/4/1/A. | (GRADE 25-20 MM AGGREGATE) as described In lintol | m3 | 3.40 | 0.82 | 2.79 |
| | (PROVISIONAL) | 1 | | | |
| SUP/4/1/B. | SAWN FORMWORK as described To sides and soffit of lintol (PROVISIONAL) | m2 | 35.00 | 15.88 | 555.80 |
| | MILD STEEL ROD REINFORCEMENT as described | | | | |
| SUP/4/1/C. | 6 mm Diameter rod in lintol (PROVISIONAL) | Kg | 3.40 | | |
| | HIGH TENSILE STEEL ROD REINFORCEMENT | | | | |
| SUP/4/1/D. | 10 mm Diameter rod in lintol (PROVISIONAL) | Kg | 3.40 | 69.71 | 237.01 |
| SUP/3/1C. | Horizontal damp proof course as described laid on half brickwall (measured net- | | | | |
| SUP/3/1C. | no allowance made for laps) | m | 5.00 | 90.48 | 452.40 |
| | Total cost per 2 units - Frame | | | | 10,875,31 |
| | | - | | | 10,010,0 |
| | BILL NO. 3 - WALLS AND PARTITIONS | | | | |
| SUP/3/1A. | Half common claybrickwall in gauged mortar reinforced with brick reinforcement as described | | | | |
| | (Party Wall) | m2 | 50.00 | 48.10 | 2,405.00 |
| SUP/3/1B. | Half brickwall in cement and sand brick in gauged mortar reinforced with brick reinforcement as described | m2 | 45.00 | 164,19 | 7,388.55 |
| | BILL NO. 6 - INTERNAL WALL FINISHES | l m2 | 45.00 | 164.19 | 7,388.55 |
| SUP/6/1/B. | 20 mm Thick cement and sand (1:3) with an approved plasticiser as described | | | | |
| ЗСГ/б/1/В. | plainface to wall | m2 | 22.00 | 462.76 | 10,180.72 |
| | BILL NO. 8 - EXTERNAL FINISHES | | | | |
| | CEMENT AND SAND (1:3) WITH AN | | | | |
| | APPROVED PLASTICIER as described | ١. | | | |
| SUP/8/1/B | 20 mm Thick plainface to wall and column | m2 | 22.00 | 122.23 | 2,689.06 |
| | Total cost per 2 units : | + | | | |
| | Wall & Lintol including Wall Finishes (Plastering) | | | | 22,663.33 |
| | Summary | | | | |
| | Frame including lintol & dpc | | | | 10,875.31 |
| | Wall (Brickwork) & Wall Finishes (Plastering) | | | | 22,663.33 |
| | Total Cost per 2 units for Superstructure Works | 1 | | | 33,538,64 |
| | Total Cost per 2 units for Superstructure Works Total Wall Area + Column & Beam | m2 | | 263.20 | 33,336.64 |
| | Total Cost Per m2 Based on Wall Area + Column & Beam | """ | | 203.20 | 127.43 |
| | | | L | | 127.43 |
| | Cost per m2 frame & wall | | Conventional (c | | |
| | a) Frame including lintol & dpc | | RM | 20.67 | / m2 |

| Cost per m2 frame & wall | Conventional (curre | ent rate) |
|---|---------------------|-------------|
| a) Frame including lintol & dpc (RM 127,43 - RM 106,76) | RM | 20.67 / m2 |
| b) Wall - Brickwork & Plastering - Bothsides (RM 22,663.33 / 212.29m2) | RM | 106.76 / m2 |
| Total | RM | 127.43 / m2 |

| | | | C Precast S rent Rate - | |
|--|------|--------|----------------------------|-----------------------|
| DESCRIPTION | UNIT | RATE | | ГУРЕ В |
| | | (RM) | QTY | AMOUNT (RM) |
| REINFORCED CONCRETE FRAME | | (| | (0.00) |
| REINFORCED CONCRETE (GRADE 30) as described | | | | |
| In column joint to panel & party wall | мз | 900.00 | 3.75 | 3,375.00 |
| In precast roof beam | М3 | 900.00 | 0.38 | 342.00 |
| | | | | |
| Total cost per 2 units - Frame WALLS AND PARTITIONS. | | | | 3,717.00 |
| 30) as described | | | | |
| Precast Panel Wall (Internal & External wall) | мз | 900.00 | 20.81 | 18,729.00 |
| Precast Panel Wall (Party wall) | МЗ | 900.00 | 1.38 | 1,242.00 |
| Total cost per 2 units - Precast Wall | | | | 19,971.00 |
| Summary | | | | |
| Frame (Frame area = 41.50m2) Wall | | | | 3,717.00 19,971.00 |
| Total Cost per 2 units for Superstructure Works | | | | 23,688.00 |
| Total Wall Area + Column & Beam | m2 | | 263.20 | |
| Total Cost Per m2 Based on Wall Area + Column & Beam | | | | 90.00 |

75.88 / m2 90.00 / m2

RM

Cost comparison of superstructure available online at our website

Single Storey Semi-D House

- Comparison of Superstructure Frame & Wall
- Conventional vs HC Precast System

Conventional : Original Design (Current Rate - July 2014) HC Precast System (Current Rate - July 2014)

sub 1

| PAGE REF | DESCRIPTION | UNIT | RATE TYPE B QTY AMOUNT | | TYPE B AMOUNT | DESCRIPTION | UNIT | RATE | QTY | TYPE B AMOUNT |
|-------------|--|------|-------------------------|--------|----------------|---|------|--------|------|---------------------------------------|
| KEF | | | (RM) | QIY | (RM) | | | (RM) | QII | (RM) |
| | BILL NO. 1 - REINFORCED CONCRETE FRAME | | | | | REINFORCED CONCRETE FRAME | | | | |
| | REINFORCED CONCRETE (GRADE 25-20 MM AGGREGATE) as described | | | | | REINFORCED CONCRETE (GRADE 30) as described | | | | |
| SUP/1/1/A. | In column and stiffeners | М3 | 280.00 | 1.96 | 548.80 | In column joint to panel & party wall | М3 | 900.00 | 3.75 | 3,375.00 |
| SUP/1/1/B. | In roof beam | М3 | 280.00 | 4.94 | 1,383.20 | In precast roof beam | М3 | 900.00 | 0.38 | 342.00 |
| | SAWN FORMWORK as described | | | | | | | | | |
| SUP/1/1/C. | To sides of column and stiffeners | M2 | 35.00 | 40.08 | 1,402.80 | | | | | |
| SUP/1/1/D. | To sides and soffit of roof beam | M2 | 35.00 | 84.79 | 2,967.65 | | | | | |
| | MILD STEEL ROD REINFORCEMENT as described | | | | | | | | | |
| SUP/1/1/E. | 10 mm Diameter rod in column and stiffeners as links | Kg | 3.40 | 25.17 | 85.58 | | | | | |
| SUP/1/1/F. | 6 mm Ditto | Kg | 3.40 | 51.80 | 176.12 | | | | | |
| SUP/1/1/G. | 6 mm Diameter in roof beam ditto | Kg | 3.40 | 103.89 | 353.23 | | | | | |
| | HIGH TENSILE STEEL ROD REINFORCEMENT | | | | | | | | | |
| | In Column and Stiffeners | | | | | | | | | |
| SUP/1/2/A. | 12 mm Ditto | Kg | 3.40 | 235.28 | 799.95 | | | | | |
| | In Roof Beam | | | | | | | | | |
| SUP/1/2/B. | 16 mm Diameter rod | Kg | 3.40 | 89.11 | 302.97 | | | | | |
| SUP/1/2/C. | 12 mm Ditto | Kg | 3.40 | 472.65 | 1,607.01 | | | | | |
| | BILL NO. 3 - WALLS AND PARTITIONS | | | | | | | | | |
| OTTP:/// | REINFORCED CONCRETE | | | | | | | | | |
| SUP/4/1/A. | (GRADE 25-20 MM AGGREGATE) as described In lintol | m3 | 3.40 | 0.82 | 2.79 | | | | | |
| | (PROVISIONAL) | | | | | | | | | |
| SUP/4/1/B. | SAWN FORMWORK as described To sides and soffit of lintol | m2 | 35.00 | 15.88 | 555.80 | | | | | |
| | (PROVISIONAL) | | | | | | | | | |
| SUP/4/1/C. | MILD STEEL ROD REINFORCEMENT as described 6 mm Diameter rod in lintol | Kg | 3.40 | | | | | | | |
| 30174/1/C. | (PROVISIONAL) | | 3.40 | | | | | | | |
| CTIP/4/4/P | HIGH TENSILE STEEL ROD REINFORCEMENT | | 2.40 | | | | | | | |
| SUP/4/1/D. | 10 mm Diameter rod in lintol (PROVISIONAL) | Kg | 3.40 | 69.71 | 237.01 | | | | | |
| SUP/3/1C. | Horizontal damp proof course as described laid on half brickwall (measured | | | | | | | | | |
| | net-no allowance made for laps) | m | 5.00 | 90.48 | 452.40 | | | | | |
| | Total cost per 2 units - Frame | | | | 10,875.31 | Total cost per 2 units - Frame | | | | 3,717.00 |
| | · · | | | | , | · | | | | · · · · · · · · · · · · · · · · · · · |

Cost comparison of superstructure available online at our website

Single Storey Semi-D House

- Comparison of Superstructure Frame & Wall
- Conventional vs HC Precast System

| - Conve | ntional vs HC Precast System | | | | | | | | | sub 2 |
|------------|---|------|--|-----------------|-----------|--|---|-----------------------|--------|----------------|
| | | | Conventional : Original Design (Current Rate - July 2014) | | | | HC Precast System (Current Rate - July 2014) | | | |
| PAGE | DESCRIPTION | UNIT | | | ТҮРЕ В | DESCRIPTION | UNIT | RATE | | ТҮРЕ В |
| REF | | | (RM) | QTY AMOUNT (RM) | | | | (RM) | QTY | AMOUNT (RM) |
| | BILL NO. 1 - REINFORCED CONCRETE FRAME | | | | | REINFORCED CONCRETE FRAME | | | | |
| | REINFORCED CONCRETE (GRADE 25-20 MM AGGREGATE) as described | | | | | REINFORCED CONCRETE (GRADE 30) as described | | | | |
| | Total cost per 2 units - Frame | | | | 10,875.31 | Total cost per 2 units - Frame | | | | 3,717.00 |
| | BILL NO. 3 - WALLS AND PARTITIONS | | | | | WALLS AND PARTITIONS | | | | |
| SUP/3/1A. | Half common claybrickwall in gauged mortar reinforced with brick reinforcement as described | | | | | 30) as described | | | | |
| | (Party Wall) | m2 | 50.00 | 48.10 | 2,405.00 | Precast Panel Wall (Internal & External wall) | мз | 900.00 | 20.81 | 18,729.00 |
| SUP/3/1B. | Half brickwall in cement and sand brick in gauged mortar reinforced with brick reinforcement as described | m2 | 45.00 | 164.19 | 7,388.55 | Precast Panel Wall (Party wall) | м3 | 900.00 | 1.38 | 1,242.00 |
| | BILL NO. 6 - INTERNAL WALL FINISHES | | | | | | | | | |
| SUP/6/1/B. | 20 mm Thick cement and sand (1:3) with an approved plasticiser as described plainface to wall | m2 | 22.00 | 462.76 | 10,180.72 | | | | | |
| | BILL NO. 8 - EXTERNAL FINISHES | | | | | | | | | |
| | CEMENT AND SAND (1:3) WITH AN APPROVED PLASTICIER as described | | | | | | | | | |
| SUP/8/1/B | 20 mm Thick plainface to wall and column | m2 | 22.00 | 122.23 | 2,689.06 | | | | | |
| | Total cost per 2 units : - Wall & Lintol including Wall Finishes (Plastering) | | | | 22,663.33 | Total cost per 2 units - Precast Wall | | | | 19,971.00 |
| | Summary | | | | | Summary | | | | |
| | Frame including lintol & dpc | | | | 10,875.31 | Frame (Frame area = 41.39m2) | | | | 3,717.00 |
| | Wall (Brickwork) & Wall Finishes (Plastering) | | | | 22,663.33 | Wall | | | | 19,971.00 |
| | Total Cost per 2 units for Superstructure Works | | | | 33,538.64 | Total Cost per 2 units for Superstructure Works | | | | 23,688.00 |
| | Total Wall Area + Column & Beam | m2 | | 263.20 | | Total Wall Area + Column & Beam | m2 | | 263.20 | |
| | Total Cost Per m2 Based on Wall Area + Column & Beam | | | | 127.43 | Total Cost Per m2 Based on Wall Area + Column & Beam | | | | 90.00 |
| | Cost per m2 frame & wall | | Conventional (current rate) RM 20.67 / m2 | | | HC Precast System a) Frame (RM 3.987 / 263.90m2) | | System (current rate) | | |
| | a) Frame including lintol & dpc (RM 127.43 - RM 106.76) | | | | / m2 | | | RM | 14.12 | / m2 |
| | (RM 12/.45 - RM 190./6) b) Wall - Brickwork & Plastering - Bothsides (RM 22,663.33 / 212.29m2) | | RM | 106.76 | / m2 | (RM 5/367/ 263.70m2) b) Wall (RM 19,764.00 / 263.90m2) | = | RM | 75.88 | / m2 |
| | Total | | RM | 127.43 | / m2 | | = | RM | 90.00 | / m2 |

Payment terms available online at our website

Payment Terms (Supply & Install): RM/m3 (RM 900.00/m3 - Ex-factory + RM/m3 - Logistic)

main

| Rate | Qty / Unit | Total Unit | Total Contract Sum | Advance (Design Fee) 5% | Balance of Contract Sum | Precast Element -80% | Installation & Insitu Work - 20% | Down Payment of Precast Element (Negotiable Subject to Production Period) | % of Down Payment | Amount |
|---------|------------|------------|-----------------------|-------------------------------|----------------------------|----------------------|--|--|-------------------------|------------|
| (RM/m3) | (m3) | (no) | (RM) | (RM) | (RM) | (RM) | (RM) | (RM) | | (RM) |
| 900.00 | 19.00 | 500.00 | 8,550,000.00 | 427,500.00 | 8,122,500.00 | 6,498,000.00 | 1,624,500.00 | 1,949,400.00 | 30.00% | |
| | | | | | | | | | 13.00% | 844,740.00 |

| Completion Period (Month) 1-12 | Work Done (RM / Month) | Work Done (RM / Day) | Work Done (m3 / Day) | Work Done (RM / Week) | Monthly + 1 Week Workdone over Down Payment (RM/Week) |
|------------------------------------|------------------------|----------------------|------------------------|-----------------------|---|
| | 10 | 25.055.00 | 20.00 | 4 60 450 00 | 042.250.00 |
| 1 | 649,800.00 | 27,075.00 | 30.08 | 162,450.00 | 812,250.00 |
| 2 | 649,800.00 | 27,075.00 | 30.08 | 162,450.00 | |
| 3 | 649,800.00 | 27,075.00 | 30.08 | 162,450.00 | |
| 4 | 649,800.00 | 27,075.00 | 30.08 | 162,450.00 | |
| 5 | 649,800.00 | 27,075.00 | 30.08 | 162,450.00 | |
| 6 | 649,800.00 | 27,075.00 | 30.08 | 162,450.00 | |
| 7 | 649,800.00 | 27,075.00 | 30.08 | 162,450.00 | |
| 8 | 649,800.00 | 27,075.00 | 30.08 | 162,450.00 | |
| 9 | 649,800.00 | 27,075.00 | 30.08 | 162,450.00 | |
| 10 | 649,800.00 | 27,075.00 | 30.08 | 162,450.00 | |
| 11 | | | | | |
| 12 | | | | | |
| Total | 6,498,000.00 | 270,750.00 | 300.83 | 1,624,500.00 | 812,250.00 |

Decide by Client

Capacity: Single Storey

1 Bay = 170 m x 4.5 m x 2 Line = 3 units/day

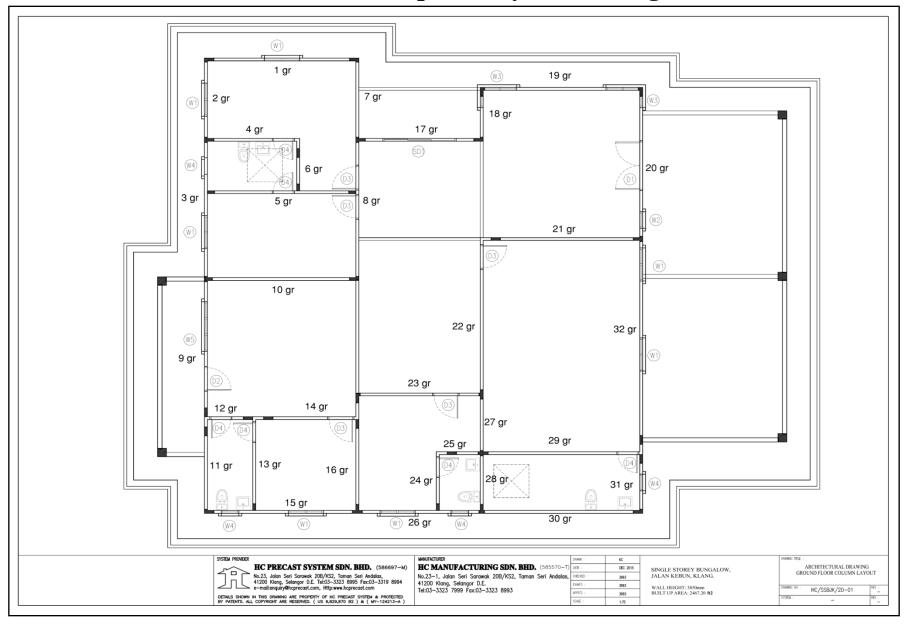
 $2 Bay = 170m \times 4.5m \times 2 Line = 6 units/day$

3 Bay = 170 m x 4.5 m x 2 Line = 9 units/day

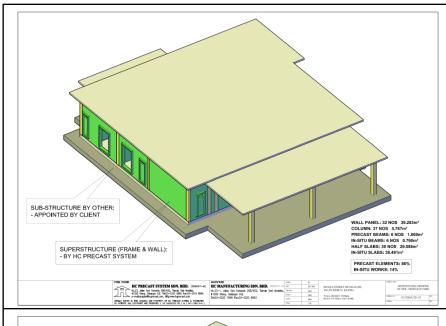
Note: Payment pay within 1 week from submission date.

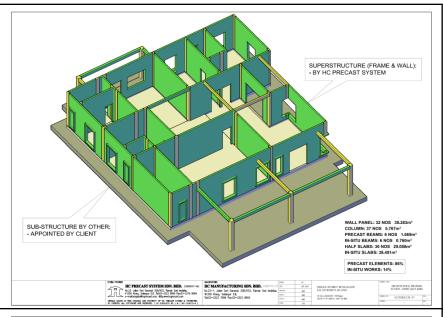
^{* 24} working days per month

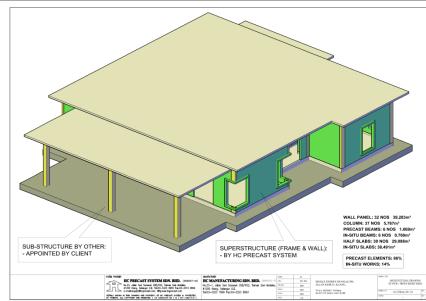
Installation Sequence by Numbering

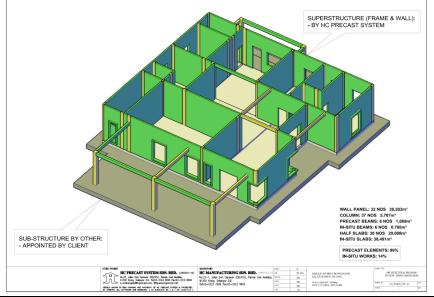


System Drawing - 3 D









Finishing Views - 1



Finishing Views - 2



Finishing Views - 3



Finishing Views - 4



Finishing Views - 5



Finishing Views - 6



Finishing Views - 7



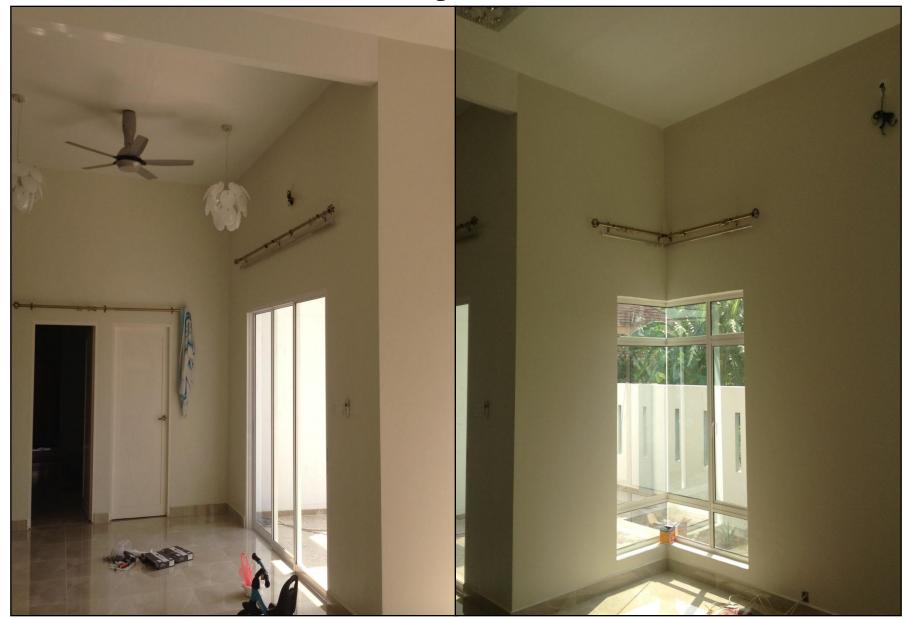
Finishing Views - 8



Finishing Views - 9



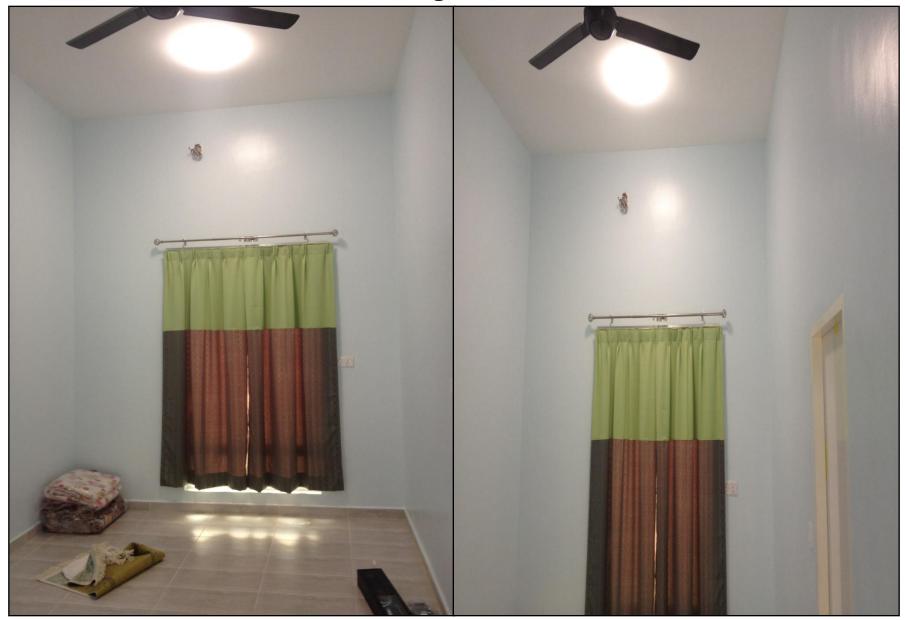
Finishing Views - 10



Finishing Views - 11



Finishing Views - 12



Finishing Views - 13



Finishing Views - 14



Finishing Views - 15



Finishing Views - 16



Finishing Views - 17



Finishing Views - 18



Finishing Views - 19



Finishing Views - 20



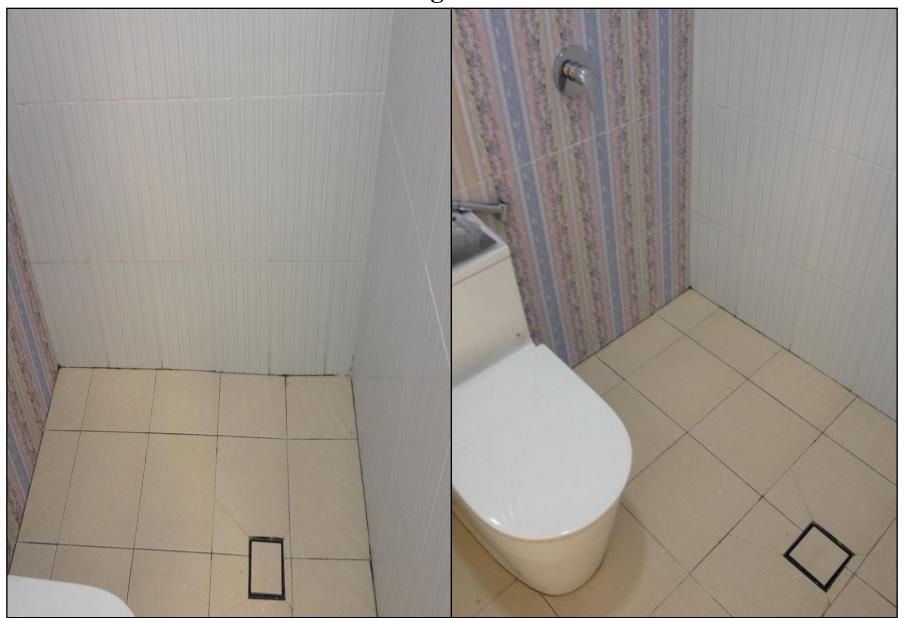
Finishing Views - 21



Finishing Views - 22



Finishing Views - 23



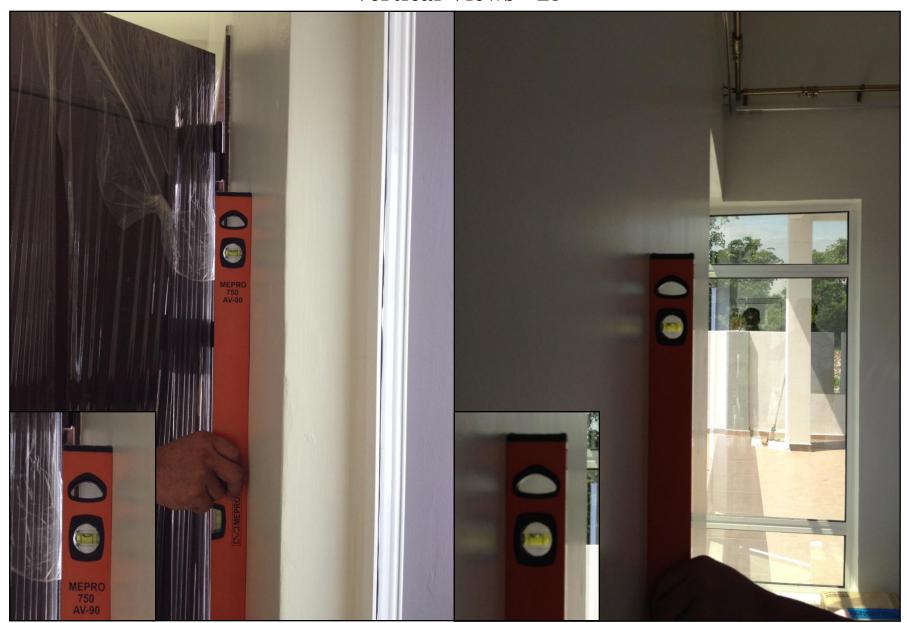
Finishing Views - 24



Thin layer of cement mortar (tiling works) due to evenness of the wall.



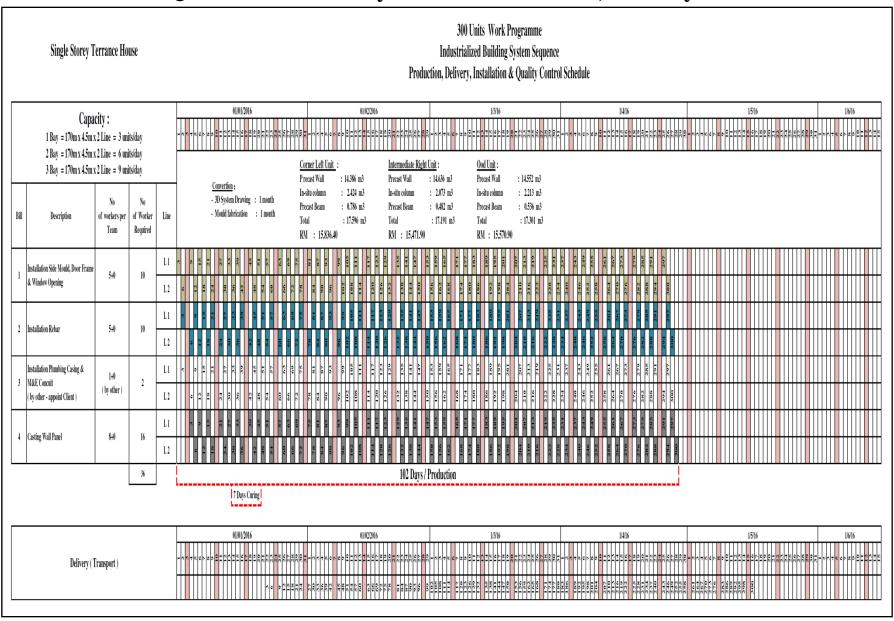
Vertical Views - 25



Vertical View - 26



SPEED & SEQUENCE: Decide by Client: Production, Delivery & Installation -1



SPEED & SEQUENCE : Decide by Client : Production , Delivery & Installation -2

| | Single Storey T | Terrance Ho | ouse | | | | | | | | | | | | | | | | | | Pro | oduct | | dust | 300 Ui rialize ery, I | d Bu | ildin | Sys | tem S | Sequ | | Sche | edule | | | | | | | | I I I | Dismantl Dismantl Fempora | ed wall pr ed column ed beam r ry suppor sam & floo | n mould mould rt stair | | ng, P.be | am, | : 1d : 36 | days afte lays after days after days after | r casting er casting | g (exclo ng (excl | cld) |) |
|-----|---|------------------------------|--------------------------|--------------|------------|-----------|---------|-------------|----------|---------|---------|-------|-------|-------------------------------|-------|----------------------------------|--------|-------------------------|--|----------------|-------------------------|-----------------|-------------------------------|--------|--|---------|----------------------------|---------|----------------------------|------------------|-------------------------------|---------|--|---------|-------------------------------|--------------------|--|--------------------|--|---------|---|---------------------------------|---|------------------------------|--|---|-----------------------------|----------------------|---|-------------------------|----------------------|--------------|-----|
| | Delivery ([*] | Transport) | | | - c4 m | w. • r- 0 | × • 0 = | 12 22 | 01/2016 | 5 20 20 | 9 40 0 | | 7. 7. | 2 2 2 | 8.4 | * * 2 2 | 8 3 | 388 | 57 K | 2 Z | 8 5 8 | 99 | 202 | = = | 2 2 2 2 | 138 | <u> </u> | 3 2 | 19 29 | 168 | 177 | 28 8 | Patty | 204 | 218 | 213 | a a a a | 240 23 | 243 25 246 26 249 27 252 28 | 258 29 | 264 3 267 4 270 5 | 276 7 | 289 11 292 12 295 13 | 298 14 | 6 2 2 2 | 1 2 2 2 | 23 25 23 | 28 29 30 31 | - 11 15 1 | 7 10 2 1 | 1/6/16 - × o 2 | | |
| all | Description | No. of workers / Team | No of Worker Required | Crance | (1) (7) 17 | w a r (| x 6 2 = | 01 2 2 2 | /01/2016 | | | | | | | | 01/0 | 2/2016 | | | | | | | | | 1/2/16 | _ | | _ | | | | | _ | 10016 | | 22.22 | 22 2 2 X | 2, 2, - | 45 4 5 4 |) F 88 B | 2 = 2 2 | 1/5/ | 7 8 5 8 6 | = # # # # # # # # # # # # # # # # # # # | 2 2 2 2 | 2 2 2 2 | - 0 0 9 | 1/ | √6/16 - ≈ o ; | 2 = | |
| | Survey setting out & level sim plat installed - 3 unit | 2+0 | 4 | | | | | | | | 2 | 2 2 2 | 27.5 | 2222 | 4 4 | \$ 55 Z G | 60 | 66 | 78 81 81 | 82 84 | 96 | 102 | 8 = 1 | 117 | 123 126 139 | 138 | 147 | 153 | 162 | 121 | 180 | 189 | 192 198 201 | 207 | 213 | 222 | 23 23 23 | 243 | 246 | 258 | 267 270 273 | 279 | 288 291 294 | 300 | | | Ш | | ill | | \parallel | | Ī |
| | PC. wall installation (GF) - 3 unit | 4+1 | 5 | CR 1 | | | | | | | П | n a a | 2 52 | 2 2 2 2 | 9.0 | 26 25 25 | 8 5 | Z 6: 3 | 59 69 | 7.5 | 2 Z | 86 | 96 20 | 108 | 114 | 126 | 138 | 2 2 | 2 8 2 | 189 | 168 | 127 | 88 88 | 195 | 201 | 213 | 210 | 228 | 234 | 249 | 255 258 261 261 | 267 | 273 276 279 282 | 285 | 294 297 297 | | | | ı | | \parallel | | İ |
| | PC. wall prop required (GF) - 3units/set | 49 x 2 x 8 sets = 784 nos | | | | | | | | | | r 9 6 | 15 | 2 7 7 n | 100 | 22 22 23 | , Ç, n | 9 12 18 | 37 x x x x x x x x x x x x x x x x x x x | n 90 | 2 2 2 | 7.7. | | 2 2 | 2 <u>7,7,</u> 0 | 9 6 3 | 2 2 2 5. | 3 6 | 0 6 2 3 | 2 2 | 77 m o o | 2 2 | 2 2 2 2 | n e e | 18 18 | 7,7 | n 0 6 2 | 2 X | 7,7200 | 6 22 | 2 2 7 7.4 | | 2 2 2 7. | , č | 96 | | | | | | \prod | | |
| | Dismantled wall prop (GF) - 3 days after column casting - 3 unit | 2+0 | Bill 2 | | | | | | | | | | | 3=27 6=30 9=33 | 12-36 | 21=45 24=48 24=48 | 33=57 | 36=60 39=63 42=66 | 48=69 48=72 51=75 | 54=78 57=81 | 66-90 | 72=96 | 78=10.2 81=10.5 84=10.8 | 87=111 | 93=117 96=120 99=123 102=126 | 108=132 | 117-141 | 123-147 | 132-156 | 141-165 | 147=171 150=174 153=177 | 159=183 | 162-186 165-189 168-192 171-195 | 177=201 | 183-207 186-210 189-213 | 192=216 195=219 | 201=225 204=228 207=231 | 213-234 | 219=243 219=243 222=246 225=249 | 231=255 | 237=261 240=264 240=267 246=370 | 252-275 | 255-279 258-282 261-285 264-288 | 267=291 | 273-297 276-300 276 279 | 285 | 294 | 900 | Ш | | Ш | | |
| | Filled expending cement mortar (GF) - 3 unit | 2+0 | 4 | | Щ | Ш | | Ш | | | | F. 0 | 6 22 | 2 2 2 2 | 6 9 | 28 88 28 | 8 8 | 22.0 | 63 | 27.25 | N 18 | 28 82 | 96 96 | 10.5 | 1 1 1 1 1 1 | 123 | 132 | 138 | 2 2 2 2 | 136 | 165 | 174 | 183 | 192 | 201 | 210 | 213 216 217 218 | 225 | 234 234 240 | 246 | 288 288 | 264 | 270 273 276 279 | 282 | 298 294 294 297 | 300 | Щ | | Ш | | Щ | 1 | |
| | Column rebar install (GF) - 3 unit | 5+0 | 5 | | Щ | Ш | Ш | | Щ | Ш | Щ | n e | e 22 | 2 2 2 2 | 后度 | 2883 | 2 2 | 28 | 6.3 6.5 6.6 | 9 22 2 | 2 2 2 | 8 8 | 96 96 | 102 | 108 | 123 | 132 | 138 | 148 | 136 | 16.8 | 2 2 | 186 | 183 | 50 70 | 207 | 218 | 228 | 234 | 246 | 255 258 | 264 | 270 273 276 279 | 282 | 294 | 300 | Щ | | Ш | Ш | Щ | | |
| | Column mould, P.beam & in-situ beam install (GF) - 3 Unit | 5+0 | 10 | CR 2 | Щ | | Щ | | Щ | | Щ | ~ | 90 | 2 8 8 2 | 35 | 2222 | 8 22 | \$ 5. J. | 28 83 | 335 | 78 78 | <u>3</u> % | 96 | 102 | 108 | 130 | 126 | 138 | 3 2 2 2 | 2 2 | 162 | 171 | 177 | 186 | 198 | 204 | 213 216 216 219 | 232 | 231 | 243 | 282 288 | 264 | 267 270 273 276 | 279 | 285 288 291 294 | 300 | Щ | | Ш | | Щ | | |
| | Column mould & prop required (GF) - 3units/set PC, beam & in-situ beam mould | = 280 nos | | | Ш | Щ | | | Щ | Щ | Щ | ~ | ••• | 3300 | e č | 3,000 | 22 | 6 9 6 | ΩXe | 005 | i Zn e | 0 2 | 3,00 | a 0 | o = 5, 7, | n e | Z Z n | 9 6 | 2.Zn | - | 003 | in e | ••22 | n e e | • হা হ ০ | 90 | noos | Z.n | 00 R Z | n o | 2200 | 0 0 | 0 0 N X | , n o | * 2 Z ~ | 0 6 | Щ | | Щ | \parallel | Щ | 4 | |
| | support required (GF) - 3units/set Dismantled in-situ column mould, | 16 x 1 x 5 sets = 80 nos | | | Щ | Щ | Щ | | Щ | Ш | Щ | ~ | | 2200 | 8.8 | 7,000 | 22 | r) 40 6 | Z Z e | 003 | i Zn | 0 5 | 7,m o | a ~ | 0 0 5 7 | m | 220 | 9 0 | 220 | | 002 | Z,m 4 | 0 n % % | n = | * Z Z ~ | | n @ @ 5 | 7,00 | 0 0 X X | n 0 1 | n S. Z. n e | 0 - | 0 6 2 2 | , m, ue | * 2 Z ~ | • • | Щ | | Щ | Щ | Щ | 4 | |
| | PC.beam & in-situ beam mould (GF) - 3 Unit 1 I days after casting (column) - 3 days after casting (beam) - 28 days carring | 5+0 | Bill 5 | CR 2 or 3 | | | | | | | | | | 3=18 6=21 9=24 12=27 | 15=30 | 21=36 24=39 27=42 30=45 | 33=48 | 39=54 42=57 45=60 | 48=63 51=66 54=69 | 57=72 60=75 | 18-09 | 75=90 | 81=96 84=99 87=102 | 90=105 | 96=111 99=114 102=117 165=120 | 108=123 | 120=135 | 126-141 | 135=147 | 144-159 | 150=165 153=168 156=171 | 162=177 | 165=180 168=183 171=186 174=189 | 180=195 | 180=201 189=204 192=207 | 198=213 | 201=216 204=219 207=222 210=228 | 213=228 216=231 | 219=234 222=237 225=240 228=243 | 234=249 | 240=255 240=255 243=258 246=261 246=261 | 252=267 | 258=273 261=276 264=279 267=282 | 273=288 | 276=291 279=294 282=297 285=300 | 2388 | 294 297 300 | | | | | | |
| - 1 | Temporary PC. Beam & in-situ beam prop support required (GF) - 28 days curing after casting - Junits | 5+1 | | | | | | | | | | | | 2 0 0 2 | - S | 22.22 | 36 | 39 | 54 54 | 55 09 0 | × 2 × 2 | | 2 S S | 2 2 | 2828 | 2 2 | 2 2 2 2 | 57 | x3 x6 | | 18 12 | 3 2 2 | 2882 | 42 70 | 2 2 2 2 | 69 | 2 2 2 5 | 9 6 | 2 8 2 2 | 23 | 28888 | 48 | 54 57 60 | 63 x5 | 3 E 9 6 | 12 13 | ž | | | | | | |
| ı | Dismantled temporary PC.beam & in-situ beam prop support - 28 days curing after casting - 3units | 5+0 | Bill 5 | | | | | | | | | | | | | | | | | | 3=81 6=84 | 12=90 | 18=96 21=99 24=102 | 30=108 | 33=111 36=114 39=117 42=120 | 48=126 | 54=132 57=138 60=138 | 63=141 | 72=150 75=153 76=153 | 81=159 84-163 | 87=165 90=168 93=171 | 99=177 | 105=180 105=183 108=186 | 117=195 | 123-201 126-204 129-207 | 135=210 | 138-216 141-219 144-222 | 153=231 | 156=234 159=237 162=240 165=243 | 171=246 | 177=255 177=255 180=258 183=261 184=764 | 189=267 | 195=273 198=276 201=279 204=282 | 207=285 | 213=291 216=294 219=297 222=300 | 228 | 234 | 243 | 282 | 264 | 27.0 | 276 | 6/7 |
| | Column & beam casting (GF) - 3 Units | 5+0 | 5 | CR 3 | | | | | | | | | F 9 | 2 2 2 8 | | 27 26 36 | 30 | 45 | Z 52 SE | 23 53 | 27. 27. | = z | 87 90 93 | 96 | 102 108 111 | 211 | 123 | 135 | 8 7 7 | 150 | 156 | 3 2 5 | 174 | 186 | 195 | 264 | 210 | 219 | 228 | 240 | 240 | 258 | 264 267 270 273 | 276 | 285 288 291 | 294 | 000 | | | | $ lap{\parallel}$ | | |
| | PC. patty wall install - 3 units/sets | 5+0 | 5 | CR 4 | | | | | | | | | | r. 9 6 | 2 2 | 22 22 23 | 30 | 38 | 48 | 55 | 3 3 3 | 27. | 8 2 3 | 87 | 96 99 | 801 | 11.00 | 123 | n si si | 7 3 | 8 8 8 | 8 8 3 | 29 12 | 212 | 88 88 | 192 | 201 | 210 | 219 | 238 | 240 | 249 | 288 | 267 | 27.5 | 286 | 294 | | | | \prod | | |
| | PC. patty wall prop required - 3 units/sets | 9 x 2 x 7 sets = 126 nos | | | | | | | | | | | | m 0 0 | 2 2 | ņ, ķ, m e | 6 22 | 2 2 2 | r 0 0 | 2 2 3 | 35 | 6 2 | z X Z | r | * II II IX | š v | • 52 52 | ş. ş. | n a a : | 2 7 | \$ m = 0 | , 22 Z | 27.4 | a n 1 | 25 25 65 | m 0 | e 57 75 75 | 9,0 | * * E E | 5 9 . | | ş, ş, | m = = 2 | 3 6 | 9 6 2 2 | ž, š, | n 0 0 0 | | Ш | | Ш | | |
| | Dismantled P.patty wall prop - 3 days after column casting - 3 units | 5+0 | Bill 7 | | Щ | Ш | | | | | Щ | Ш | | | Ш | 3=24 6=27 9=30 | 15=36 | 21=42 24=45 27=48 | 36=51 36=57 | 39=60 | 48=69 51=72 51=75 | \$7=78 60=81 | 6.3=84 64=87 6.9=90 | 72=93 | 81=102 84=105 87=108 | 93-114 | 99-120 | 111=132 | 117=138 | 126-147 | 132=153 | 144=165 | 159=171 153=174 156=177 | 162=183 | 168=189 171=192 174=195 | 189=201 | 186=207 186=207 189=210 192=213 | 195-216 | 204=225 204=228 207=228 210=231 | 213=234 | 222-243 223-246 228-249 331-343 | 234-255 | 240=264 245=264 246=267 249=270 | 252=273 | 261=282 264=285 267=288 | 273-294 | 279=390 282 285 | 294 | 300 | | Щ | | |
| | Patty wall rebar install - 3 unit | 5+0 | Bill 7 | | | | | | | | Щ | Ш | | m a a | 2 2 | 2 2 2 2 | 30 | 39 39 | \$ \$ 5 | Z (5 9 | 383 | 27. | 8 S S | 87 | 96 99 | 80 80 | 111 | 123 | 2 2 2 3 | 2 3 | 150 | 8 8 9 | 163 | 24.6 | 183 | 192 | 201 | 210 | 333 310 2 | 2328 | 240 237 | 249 | 35 25 33 | 267 | 273 276 279 282 | 288 | 294 | | Щ | \prod | Щ | \parallel | |
| 1 | Patty wall column mould install - 3 units | 5+0 | 5 | CR 4 | | | | | | | | Ш | | F. 9 | 6 2 | 21 18 | 72 07 | 288 | 다 <u>수</u> 쪽 | Z Z Z | 8 2 3 | 72 | 87 87 | Z (2 | 98 88 | 105 | 4 = 1 | 123 | 129 | 80 | 147 | 2 5. | 2 2 2 <u>3</u> | 24 | 180 | 183 | 201 | 207 | 213 | 228 | 234 | 246 | 255 | 264 | 27.5 27.6 27.6 27.9 | 288 | 294 294 297 | 900 | Щ | | Щ | \parallel | |
| | Patty wall column mould required - 3 units/sets Dismantled patty wall column mould | 14 x 1 x 6 sets = 84 nos | | | | | | | | | \prod | | | - n | 0 0 | 2 2 8 | 3 3 5 | F) G 6 | 11 K & | F. 00 | 11 C 8 | | v 55 EY | ž | 0 0 2 % | χ, o | 7 27 27 | 9 6 | 2 2 X | | 8 2 8 9 | 2 2 | 2 8 2 6 | S . | 0 2 7 | 38 38 | 2 2 2 0 | 8,8 | 0 0 E K | × × × | 0 0 11 7 7 | 9 3, | 9 2 2 6 | 9 8 | 29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | m 0 | 2 C Z Z | ~ | Ш | # | Щ | \parallel | |
| 1 | - 1 day after casting - 3 unit | 5+0 | Bill 9 | | | Щ | | Щ | | | \prod | Щ | | | | 127 | 12-31 | 24:42 | 33=51 | 36=54 | 15-65 | \$4-73 | 6.1-81 6.1-81 66-84 | 72=90 | 75=9. 78=90 81=99 | 97-11 | 99-11 102-12 105-12 | 111-12 | 117-11 | 126-1 | 135-15 | 1 1 | 150-10 150-10 150-10 | 162-18 | 171=18 174=19 | 180=19 | 186-20 | 195-21 | 204-22 | 216-21 | 222-24 | 234-21 | 240-26 | 255=27 | 261=27 264=28 264=28 | 27.6-29 | 276=29 279=24 282=348 | 291 | 300 | \parallel | Щ | \downarrow | |
| | Patty column casting - 3 Units | 5+0 | Bill 6 | CR 3 or 4 | | | | | | | | | | | 0.0 | 2 8 12 | 32 | 36 | 39 | \$ 2.5 | 8 8 3 | 88 | 72 78 | z z | 98 83 | 102 | 80 = 7 | 117 | 120 | 20 2 | = = = = | 183 | 162 | 121 | 180 | 186 | 198 198 | 201 | 213 | 222 | 231 | 243 | 249 252 255 258 | 261 | 267 270 273 276 | 282 | 288 | 300 | Ш | | | ال | |

SPEED & SEQUENCE: Decide by Client: Production, Delivery & Installation -3

Accessories Required & Guide: 300 units Single Storey Terrance House

sub 3

| Bill | Description | Quantities (nos / set) | Drawing No |
|------|---|--------------------------|------------|
| 2.1 | Ground floor wall prop | 784 | |
| 5.1 | Ground floor Column Mould | 280 | |
| 5.1a | Ground floor PC.bean & in-situ Beam Mould Support (scaffolding) | 80 | |
| 5.2 | Ground floor PC.bean & in-situ Beam Mould Prop | 368 | |
| 7.1 | PC. patty wall prop | 126 | |
| 9.1 | Patty wall column mould | 84 | |
| | | | |

| Bill | Description | No. of workers / Team | Work done / Day |
|------|---|--------------------------|--------------------------|
| 1 | Survey setting out & level sim plat | 2.+0 | 30 - 50 pcs panel |
| 2 | Wall Panel Installation | 4+1 | 30 - 50 pcs panel |
| 3 | Fill in Expandite Concrete | 2+0 | 20 - 30 pcs panel |
| 4 | Column Rebar Installation | 5+0 | 40 - 60 nos column |
| 5 | Column Mould Installation with Precast Beam & In-situ Beam (IF) | 5+0 | 40 - 60 nos column |
| 6 | Column/Beam Casting | 5+0 | 4 - 6 m3 |
| 7 | Column Mould Dismantle | 5+0 | 40 - 60 nos column |
| 8 | Precast Beam & In-situ Beam Installation | 5+0 | 20 - 40 nos precast beam |
| 9 | Mobile Crance 25Ton Panel Installation | | |
| 10 | Mobile Crance 20Ton Casting & Dismantled | | |

THANK YOU DESIGN BY YOU PRODUCE BY HC