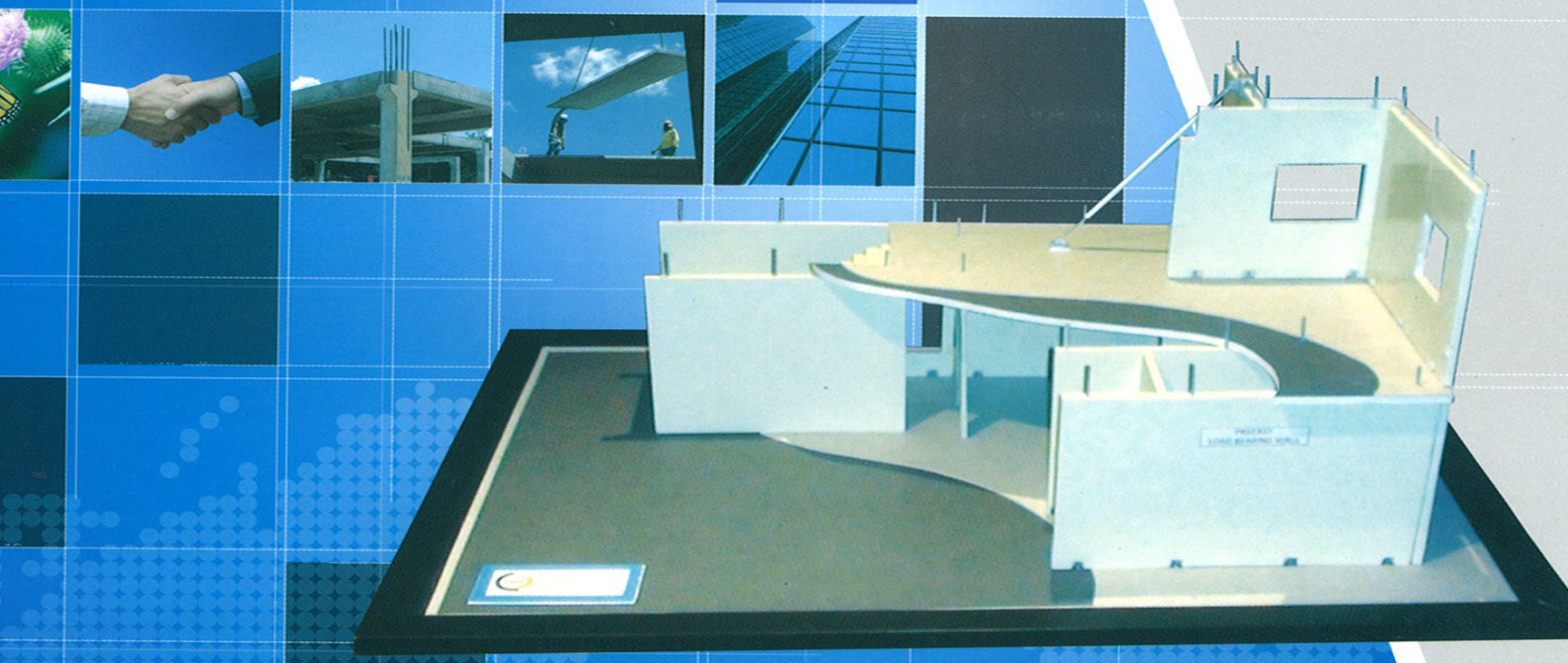
NS PREFAB CONSULTANCY

Simplifying ENGINEERING



- IBS CONSULTANT
- CIVIL & STRUCTURAL CONSULTANT
- PROJECT MANAGEMENT CONSULTANT

Industrialized Building System (IBS) Specialist

ABOUT US

NS PREFAB CONSULTANCY

We are proud to introduce our company NS Prefab Consultancy, which majors in Construction and Engineering consultancy.

NS Prefab Consultancy is a Civil and Structure consultancy company, 100% Bumiputera equity. Other than the common civil and structural design, we are also capable and specialize in Industrialized Building System (IBS), which is established in line with government aspiration to improve the productivity and quality standard of the construction sectors.

The strength of the company rests on its people who have the *technical-know-how* and *hands-on* on IBS related construction method, which also include a combined experience of more than 20 years in the planning, design and supervision of conventional and Industrialized Building System (IBS) civil and structure works.

Our use of advanced design and drafting software, guarantees high quality and economical design. Our design software includes AutoCAD used for drafting, Esteem for structure design and detailing, Staad Pro and Orion for structure design & analysis and Revit Structures that enables the creation and management of accurately detailed, highly constructable 3D structural models regardless of material or structural complexity. The latest version of AutoCAD is used for drafting.

We also provide Professional Engineer's (PE) endorsement for our design and system through our panel of experienced PEs.

Through the years of experience garnered whilst in the employment of SP Setia Berhad (Setia Precast and Taisei Prefab of Japan), Global Prefab System Sdn Bhd and KUB Precast Sdn Bhd and other consultancy firm the team is now capable of executing multiple projects, from high rise residential, commercials, such as offices, shopping complexes and industrial buildings and other types of buildings and infrastructure. The team is ready to share their expertise from the Planning Stage, Design and Design Coordination, Production of Shop drawings and Project Management.

To ensure the continuity of the knowledge and *technical-know-how* of the IBS to the younger generation, NS Prefab Consultancy also injecting young and talented engineers in our organization for them to be exposed with the design and implementation of projects utilizing IBS.

"We offer a various range of Concrete products design to your specifications. A combination of proven engineering skills bring all of your precast concrete needs to reality"

Industrialized Building Consultant (IBS) Specialist

NS PREFAB CONSULTANCY

CORPORATE INFORMATION

- **Registered Name :** NS PREFAB CONSULTANCY
- **Head Office :** **No 9-2, Jalan USJ 10/1F,**
  UEP Subang Jaya,
  47620, Subang Jaya,
  Selangor Darul Ehsan
- **Telephone :**03-5633 4335
- **Fax :** 03-5633 5179
- **Status :** 100% Bumiputera
- **Board of Engineer (BEM) Registration No : 1515-1000-SP-1429**

OBJECTIVE

- **NS Prefab Consultancy** will continuously be a reliable partner in offering general **civil & structural consultancy services to contractors.**
- **NS Prefab Consultancy** will impart the most effective and practical design and **project management services to the clients and contractors.**
- **NS Prefab Consultancy** will play an important role in promoting Industrialized **Building System (IBS) among the construction players in line with the government aspiration.**
- **NS Prefab Consultancy** will guide and expose Bumiputera engineers, **contractors and manufacturers to the Industrialized Building System method of construction.**

NS PREFAB CONSULTANCY

VISION STATEMENT

"To become an international recognized engineering organization with high capability, prudent locally & repute globally which offer total technical & engineering solution"

MISSION STATEMENT

"To offer total engineering solutions which aligned with modern construction system such as Industrialized Building System & Modern method of construction and deliver with outstanding performance that meet clients expectation, values & enhance employees capability & satisfy public needs for safety & environmental friendly"

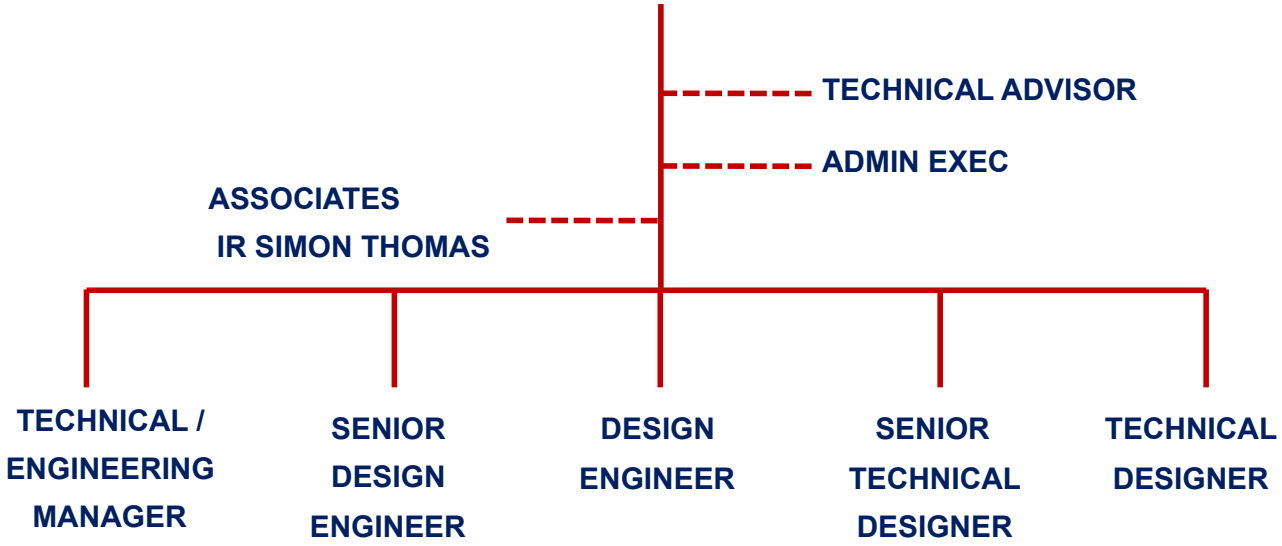
NS PREFAB CONSULTANCY

NS Prefab Consultancy

ORGANIZATION CHART

PRINCIPALS

PROF IR DR ABDUL KARIM BIN MIRASA



NS PREFAB CONSULTANCY

KEY MANAGEMENT TEAM

Prof Ir. Dr Abdul Karim bin Mirasa is the **Principal** of NS Prefab Consultancy. Ir. Dr. Abdul Karim Mirasa is a Professor in Civil Engineering and currently Head of Civil Enginering Department at Faculty of Engineering, Universiti Malaysia Sabah. He received his Undergraduate Degree from University of Strathclyde, U. Kingdom, Master Degree from University of Newcastle upon Tyne, U. Kingdom and Doctorate from Universiti Teknologi Malaysia. Previously he was the Director of Steel Technology Centre, Director of Bureau of Innovation and Consultancy and Dean of Faculty of Civil Engineering, Universiti Teknologi Malaysia. He is also a Member of Institution of Engineer Malaysia(MIEM) and Professional Engineer with Board of Engineers Malaysia(P.Eng). He has been lecturing the undergraduate and postgraduate courses for more than 35 years in Analysis and Design of Reinforced Concrete and Steel Structures, Advanced Construction Technology including Precast Engineering. His research interests are in the behavior of precast joints, appraisal and repair of reinforced concrete structures and properties and behavior of concrete with ultrafine POFA. He has published more than 70 papers including research monograph and 8 books in Steel Design. He has conducted a number of consultancy projects on structural appraisal of reinforced concrete structures in Malaysia. He has also been actively involved as independent checker for three projects namely Cadangan Pembangunan 3 Blok Bangunan Akademik Tambahan Fakulti Komunikasi dan Bahasa Moden Fakulti Pengurusan Teknologi dan Fakulti Sains Kuantitatif Universiti Utara Malaysia, Sintok, Kedah DA, Merekabentuk, Membina dan Menyiapkan Kompleks Induk Institut Penyelidikan Sains dan Teknologi Pertahanan(STRIDE) Kajang, Fasa 2 and Cadangan Pembinaan Bangunan Tambahan Ibu Pejabat Polis Kontijen (IPK) Johor.

KEY MANAGEMENT TEAM

NS PREFAB CONSULTANCY

Ir.Simon A. Thomas, is the **Associate Director** of NS Prefab Consultancy. He graduated in Bachelor Degree in Civil / Structure Eng., University College, (1976-1979) United Kingdom. A registered Member of Professional Engineer with B.E.M. Member, Institute of Engineers Malaysia, member of Institute of Structural Engineers and Civil Engineer, United Kingdom. He have 30 years experienced in design and construction include more than 9 years of direct experience in implementing the IBS construction, especially on prefabricated reinforced concrete load bearing wall, columns, beam, stair cases, balconies, half cast slabs, hollow core slabs ands and bath room slabs. Prior to involved in IBS, township development, infrastructure development and work with International Consulting Engineering firm.

Saiful Adli Abdul Karim is the **Technical Manager** of NS Prefab Consultancy. He hold an Honours Degree in Civil Engineering from UTM, Malaysia in 2007. He started his career as a site engineer with an established Class A contractor for a year after graduation. From thereon, he moved to a more specialise field which is precast concrete Industrialised Building System. His overall involvement in the precast field includes modelling and design, prefabrication and site coordination. Projects involvement include *Lembaga Kemajuan Ikan Malaysia (LKIM) Head Quarters* at Cyberjaya, *Pusat Latihan Polis* (PULAPOL) at Segamat, *Institut Aminuddin Baki* (IAB) at Nilai and Sandakan, JKR Quarters at Sg. Besi, *Maahad Tahfiz* at Alor Gajah, *Kem Tahanan Tentera* at Kluang, UMP Main Office Complex at Pekan, School Projects at Putra Height 2, Rasah Kemayan and Tanah Hitam, *Mahkamah Syariah* at Penang, Nilai Impian Housing Development at Nilai, Ainsdale Housing Development at Seremban, JKR Office at Gombak, UITM Quarters at Seremban 3, UMP Quarters at Gambang, Felda Development at Pasoh and Jengka, Multilevel Car Park at Technology Park Malaysia, JKM Quarters at Tg. Rambutan and many more. He is also actively being invited as panel for conferences and dialogue sessions organise by both government and private sectors such as "*Semakan Semula Modul Professional IBS*" by CIDB, Conference on Precast Concrete by Trueventus and several others. He is also known as experienced trainer in the specialised field of Precast Concrete as has conducted a numerous training module case range from precast Concrete Planning & Design, Manufacturing Processes, Quality and Project Management for clients from government such as Jabatan Kerja Raya (JKR), Ministry of Urban Wellbeing, Housing and Local Government (KPKT), Institute of Engineering Malaysia (IEM) and also from several private consultant and training provider.

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CONSTRUCTION UTILIZING PRECAST METHOD

ABSTRACT

The conventional method of construction is a way of past. The longer period of construction, inconsistent quality delivered and lack of skilled workmanship is giving the method a major setback adapting in the new world where buildings, facilities and infrastructures needs to be in place in the shortest possible time and most importantly without scarifying the quality and also the aesthetical value of own culture and architectural.

For construction industry to cope with other sector, more sophisticated and advanced construction technologies needs to be adapted or practiced. The transformation seems inevitable. Construction sector needs to be industrialized. Industrialized means lessen dependency on manpower. It also means specialization, simplifying details and reduced the risk of mishap. The reliance on foreign workers should be significantly reduce hence we can also shrink the amount of money flowing out from our country. Looking at the current scenario, Precast system way of construction is seen as the perfect solution for the construction industry.

Precast system construction is a system where components for buildings, facilities and infrastructures are cast at a controlled environment either at permanent plant or a temporary off-site plant. They are then transported based on the need of the site, erected piece by piece and joined either through grouting, welding or bolting to make up a complete structure.

This system not only suitable for plain structures but can well accomplished for buildings or structures that requires unique architectural design. The consistency of the quality is guaranteed as it is being produce at a controlled plant where not only quality aspect but also tolerance control and economy can be best achieved.

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INTRODUCTION

The myth of Precast system disregard the joint and detailing as per specified in engineering code such as BS8110 is totally absurd. A matter of fact, Precast system practices high level of stability of the structure starting from the design stage, continued at erection stage and till the live loads are being applied. Each detailing and loads are being considered and studied carefully and are being ensured complying with the code of practice.

The different between cast in-situ and precast buildings main structural lies at the structural continuity. For cast in-situ building, the structural continuity is inherent and will automatically follow as the construction proceeds. The opposite goes for construction utilizing Precast. There must be a conscious effort to ensure the continuity in term of structural to be created when Precast elements or components to be connected to each other. The connections act as bridging link between the components.

As the structure need to stand by itself during the construction stage, Precast system is being design more stringent compare to conventional structure. Analysis for the structure was also being conducted thoroughly to ensure its high levels of stability, safety and performance in the face of external forces, other implied and dead loads. Each jointing part not only being design but also being tested to ensure its durability and workability.

Connections form the most vital part of Precast system construction. This is due to structural elements in Precast building will only form a stable structural system after the joints are connected. Structural considerations for stability and safety are required at all stage. A load bearing structure with stabilizing elements which can sustain both vertical and horizontal loads and transmit the loads to foundation is required and essential.

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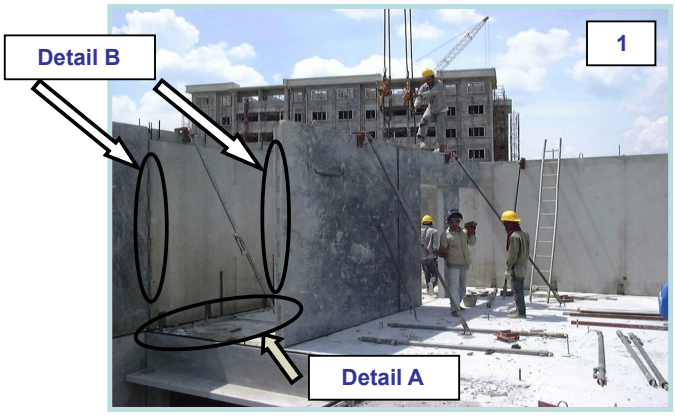
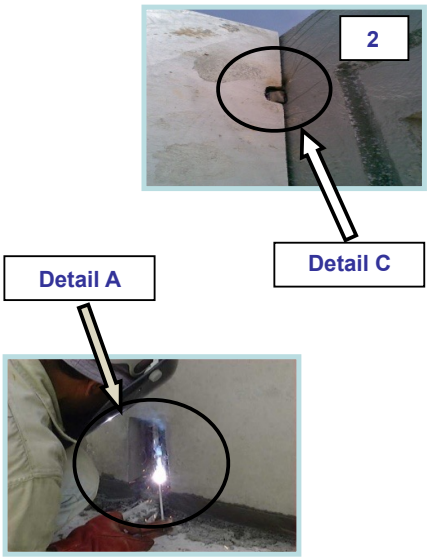
CONSTRUCTION UTILIZING PRECAST METHOD

There are two types of precast construction system that are being widely used in Malaysia namely Precast Load Bearing Wall and Precast Framing System. Precast Load Bearing Wall system is widely being used for high rise residential and structural panels. In order to form an integral building framework, the walls are continuously inter-linked perpendicularly from the first floor to the uppermost floor by vertical tie-bars, which are anchored at the transfer floor (refer detail A).

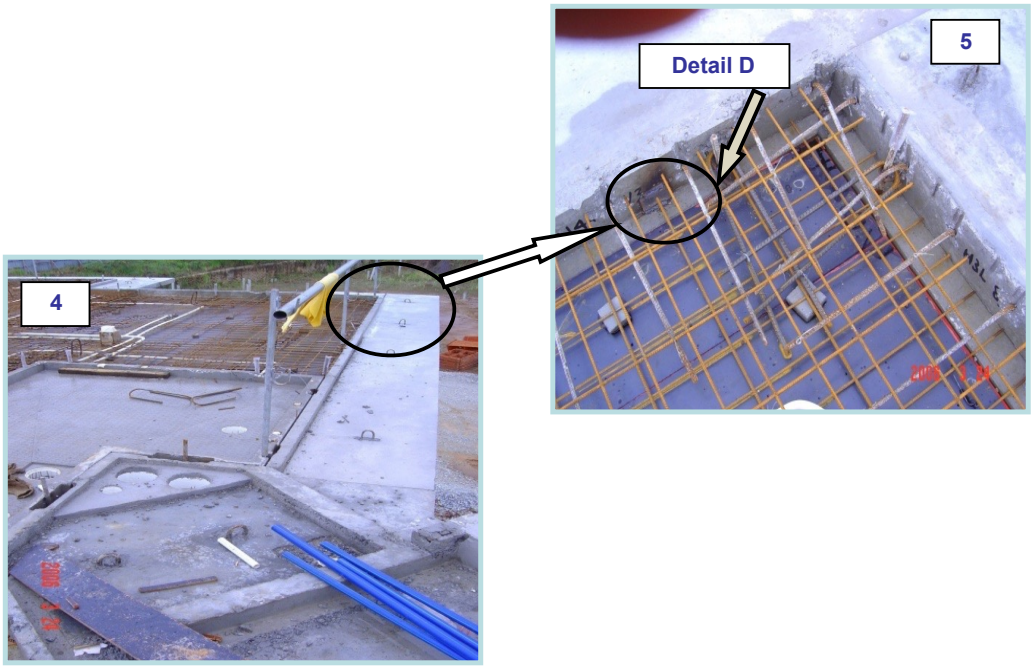
The structure solidity is beyond question as the jointing part between walls, horizontally and vertically are being treated properly. Horizontally walls are being linked by horizontal tie-bars anchored at the top. The tie-bars from each floor are being connected to another through welding plate (refer detail A). Shear keys are being introduced to couple wall together at the side edges (refer detail B). For vertical joints, jointing plates are being applied. The plates are being welded to each side of the wall hence forming a structure that are stable and sound (refer detail C). Shall Precast slab being applied for the wet area, balcony and hood, the slabs are being joint to the walls through welding plate for temporary support (see detail D) and the reinforcement from the slabs will be casted together with the in-situ floor slab to from a stable structure. The process is as being shown on below pictures.





Picture 1, 2 &3:Type of joints between elements

Picture 4 & 5:Precast slab element is being jointed to the wall



The design and shopdrawing preparation will suit Client's requirements as there will be no restriction on the size of the room, height and shape. However, suggestion in order to be cost effective, number of repetition for each paneling must be high, streamlining of architectural design must be done during the planning and design stage or before tender stage so to achieve speed, quality and ease of installation and speed.

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LIST OF PRECAST CONCRETE COMPONENTS:

In precast frame design , the installation and final stage structural elements strength should be considered due to their actual stage of construction.

1. **Precast Beam**
2. **Precast Column**
3. **Precast Staircase**
4. **Precast Mid Landing Slab**
5. **Precast Half Slab / Plank**
6. **Precast Load Bearing Wall**
7. **Precast Toilet Module Slab**
8. **Precast Façade Wall**
9. **Precast Balcony Slab**

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IMPLEMENTATION OF PRECAST LOAD BEARING WALL SYSTEM FOR CONSTRUCTION

DESIGN STAGE

The design and shopdrawing preparation will suit Client's requirements as there will be no restriction on the size of the room, height and shape. However, suggestion in order to be cost effective, number of repetition for each paneling must be high, streamlining of architectural design must be done during the planning and design stage or before tender stage so to achieve speed, quality and ease of installation and speed.

MAINTAINING STRUCTURAL

The most important step is to identify which walls are to be load-bearing. Partition walls are also precast but structurally they serve no function. Walls length is then sized according to these factors;

1) Crane's capacity and reach.
2) Sites contour, access and soil conditions.
3) Erection floor cycle.
4) Stability of panels before slab when is functional.

All load bearing walls is designed as a braced slender plain wall. The in-situ floor slab between these walls act as a diaphragm in both direction and thus this combination will behave like a rigid concrete box. The bottom connection of the wall is categorized as pinned joint while the top connection is fixed. At typical units with precast walls as structural members, all provision for ties are met and these joints are mainly transmitting compression load. Progressive collapse are also taken into consideration.

However due to economic of scale, the first floor structure and sub-structure is to be built using the usual in-situ column and beams. However these in-situ works will have to be very precise as its dimension and shape will have to match its precast counter parts at floors above.

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M&E SERVICES

All M&E services like PVC conduit for electrical and trenches for plumbing installation are incorporated into the Precast walls and the location and type of fixing must be confirmed first before walls are concreted. More stringent checks and coordination is needed at factories because hacking of Precast walls on site is not advisable. Close attention must be put into sanitary and cold water services especially rain water down pipes as these require big openings both on slab and Precast walls and may require structural reinforcements. Coordination work also must be done with site personal and consultants with regards to fixing of doors to services room as required by building authorities.

In addition lift services and type must also be confirmed much earlier as additional cost can be incurred if lift shaft is too narrow or big. Opening and support for lift motor also must be confirmed and provided at lift motor room. Lift shop drawing must be submitted much earlier and confirmed by consultant before production.

ARCHITECTURAL FINISHING

As not to restrict creativity for the architectural design, minimum change is proposed. The layout and external façade remained but proposal was made to the staircase for cost effective production and erection. In fact some design were enhanced and improved as we are able to provide better and more consistent curve. We were able to give more headroom to units without extra costs because it is column and beam free.

Due to the coordination work and study that was done way before construction, we were able to run our sanitary and cold water piping effectively thus saving cost and the need to cover up these services with false ceiling.

However hoods, aluminum windows and door frames must be confirmed earlier before production of precast walls commence. This has always been a problem because decisions are slow and close monitoring is very essential.

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BUSINESS ACTIVITIES

INDUSTRIALIZED BUILDING SYTEM (IBS)

IBS or Precast (commonly known name in the market) is not new in the Malaysian market. It has been used intensively in the development of Putrajaya, not only in the high rise apartments but also at the ministry office complexes. We are committed to the government IBS agenda that all projects undertaken by the company will be in IBS. Those projects that currently ongoing and will kick off soon, will be utilising IBS to the limit.

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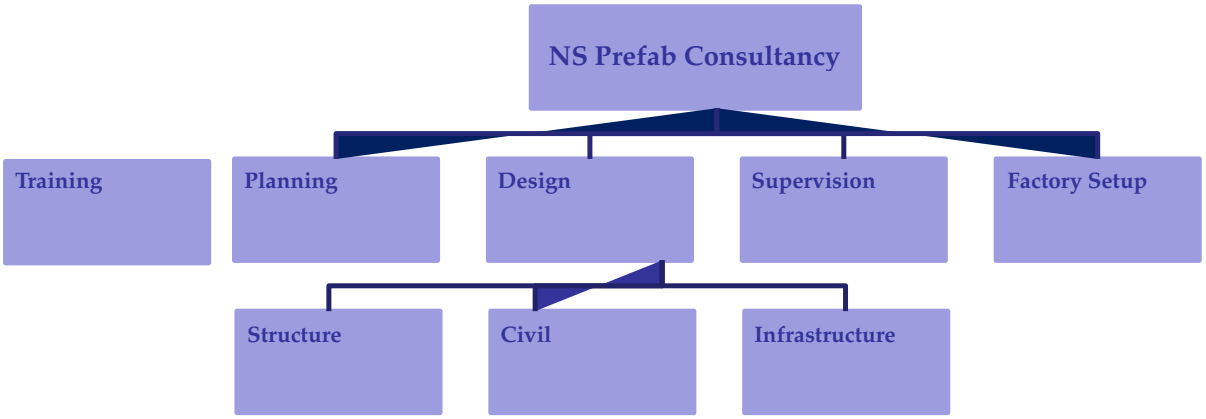
OUR SERVICES



NS Prefab Consultancy is a Civil and Structural Consultants specializing in buildings utilizing Industrialized Building System (IBS). Our services include the design of conventional and IBS components such as Precast Wall Panel, Beams, Columns, Parapet Walls, Decorative Walls, RE Walls, Slabs, Steel Structures and also the foundation of the buildings. Besides layouts and details drawings, NS Prefab Consultancy also provides the shop drawings for the manufacturing of IBS elements and construction purposes.

NS Prefab Consultancy is a Planning Consultants for clients and contractors whom desire to adapt IBS method over the conventional method. Our services include providing design calculations, Precast or IBS elements involved and submission to the relevant authorities for approval. The responsibility of the design will be under our scope.

NS Prefab Consultancy is a Project Management Consultants for clients and contractors whom needs our expertise to advice on the duration of construction utilizing IBS method of construction, number of installation gangs, machineries needed and how to set up a manufacturing plants.

" For us service and support means lasting partnership. When you team up with us, you get much more than state-of-the art product. It is our mission to be your partner throughout the lifetime of your process.

Industrialized Building Consultant (IBS) Specialist

NS PREFAB CONSULTANCY

PROJECT UNDERTAKEN

(Civil & Structural Consultant with Conventional & Industrialize Building System (IBS) Specialization)

Fully / Partially involved by the company's personnel

1. **Cadangan Membina dan Menyiapkan Institut Aminuddin Baki (IAB) diatas Lot 10 sebahagian daripada Cadangan Kompleks Pendidikan diatas lot PT 23743 Mukim labu, daerah Seremban Negeri Sembilan Darul Khusus untuk Tetuan Kementerian Pelajaran Malaysia.**

   - **Main Contractor** : Global Globe (M) Sdn Bhd
   - **Buildings Involved** : All Academic and Administration Blocks
   - **IBS Elements Involved** : Precast Columns, Precast Beams, Precast Slabs, Lightweight Panel, Precast Wall Panel, Precast Toilet Slabs and Precast Staircases.
   - **Estimated Project Cost** : RM 150 mil.
   - **Project Progress / Status** : Completed
   - **Year Complete** : 2011

2. **Cadangan Pembangunan yang Mengandungi Ibu Pejabat LKIM dan Dewan Besar LKIM, di atas Lot PT 111831 dan PT 1119 (Lot 1149), Mukim Dengkil, Daerah Sepang, Selangor Darul Ehsan untuk Tetuan Lembaga Kemajuan Ikan Malaysia (LKIM).**

   - **Main Contractor** : Global Globe (M) Sdn Bhd
   - **Buildings Involved** : Administration Block , Multi Purpose Hall and etc.
   - **IBS Elements Involved** : Precast Columns, Precast Beams, Precast Planks, Precast Wall Panels, Lightweight Panels and Precast Staircases.
   - **Estimated Project Cost** : RM 112 mil.
   - **Project Progress / Status** : Completed
   - **Year Complete** : 2011

3. **Cadangan membina dan menyiapkan Pusat Latihan Polis Diraja Malaysia Zon Selatan di atas Lot 1721 Mukim Jementah, Segamat, Johor secara Reka dan Bina Rundingan Terus untuk Kementerian Dalam Negeri.**

- **Main Contractor** : **Global Globe (M) Sdn Bhd**
- **Buildings Involved** : All Administration, Apartment, Hostels, Housing blocks and etc.
- **IBS Elements Involved** : Precast Columns, Precast Beams, Precast Planks, Precast Wall Panels, Dry Walls and Precast Staircases.
- **Estimated Project Cost** : RM 124.8 mil.
- **Project Progress / Status** : Completed
- **Year Complete** : 2011

4. **Cadangan membina dan menyiapkan Kompleks Pentadbiran Utama 4 Tingkat until Universiti Malaysia Pahang (UMP), Mukim Kuala Pahang, Daerah Pekan, Pahang Darul Makmur, Untuk Tentuan: Jabatan Kerja Raya.**

- **Buildings Involved** : Administration Block.
- **IBS Elements Involved** : Precast Columns, Precast Beams, Lattice Slab and Lightweight Panels.
- **Estimated Project Cost** : RM 48.0mil.
- **Project Progress / Status** : Completed
- **Year Complete** : 2012

5. **Cadangan Membina dan Menyiapkan Institut Aminuddin Baki (IAB) Cawangan Sarawak diatas Lot 6955, 6956 dan sebahagian 4432, Blok 9, Salak Land District, di Santubung-Buntal, Jalan Sultan Tengah, Kuching, Sarawak untuk Kemanterian Pelajaran Malaysia.**

- **Project Manager** : **JKR Cawangan Pengajian Tinggi.**
- **Buildings Involved** : Administration, Faculties, Hostel & etc.
- **IBS Elements Involved** : Precast Columns, Precast Beams, Precast Slabs, Lattice Slabs Lightweight Panel.
- **Estimated Project Cost** : RM 140 mil.
- **Project Progress / Status** : Completed
- **Year Complete** : 2012

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6. **Cadangan Pembinaan Kuarters Batu 4½ , Sungai Besi, Kuala Lumpur**

- **Main Contractor** : **FNA BUILDERS & SERVICES SDN BHD**
- **Buildings Involved** : Kuarters JKR
- **IBS Elements Involved** : Precast Wall Panels, Precast Staircase & Precast Toilet Slab
- **Estimated Project Cost** : RM 18.0mil.
- **Year Complete** : 2011

7. **Cadangan Membina dan Menyiapkan Projek IBS bagi Sekolah Menengah Kebangsaan Rasah Kemayan, diatas Lot PT 4964, Bandar Sri Sendayan, Mukim Labu, Daerah Seremban, Negeri Sembilan Darul Khusus.**

- **Main Contractor** : **HATIMUDA SDN BHD**
- **Buildings Involved** : Blok Akademik & Admin, Blok Dewan, Blok Bengkel dan Kantin
- **IBS Elements Involved** : Precast Columns, Precast Beam, Precast Staircase & Precast Lattice Slabs.
- **Year Complete** : 2013

8. **Cadangan Membina dan Menyiapkan Projek IBS bagi Sekolah Kebangsaan Dato' Ahmad Razali Di Atas Lot 65739, Jalan Nova U5/45, 40150, Subang Bestari, Shah Alam.**

- **Main Contractor** : **TIM SEKATA SDN BHD**
- **Buildings Involved** : Block Academic, Block Admin, Block Pre-School, Block Kantin and others.
- **IBS Elements Involved** : Precast Columns, Precast Beam, Precast Staircase & Precast Lattice Slabs.
- **Year Complete** : 2013

9. **Cadangan Membina dan Menyiapkan Projek IBS bagi Sekolah Menengah Kebangsaan Taman Mahsuri, Lot 5495, Mukim Naga Lilit, Daerah Kulim, Kedah.**

- **Main Contractor** : **SAUZI HJ IDRIS SDN BHD**
- **Buildings Involved** : Blok Akademik & Admin
- **IBS Elements Involved** : Precast Columns, Precast Beam, Precast Staircase & Precast Lattice Slabs.
- **Year Complete** : 2013

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10. Cadangan Membina dan Menyiapkan Projek IBS bagi Bagi Sekolah Menengah Kebangsaan Putra Height, Subang Jaya, Selangor Darul Ehsan.

- **Main Contractor** : **PROTAP SDN BHD**
- **Buildings Involved** : Blok Akademik & Admin .
- **IBS Elements Involved** : Precast Columns, Precast Beam, Precast Staircase & Precast **Lattice Slabs.**
- **Year Complete** : 2013

11. Cadangan Membina dan menyiapkan 340 unit rumah teres di sebahagian atas lot-lot PT24360, PT 25949 (Lot 19044), 25948 (Lot 19045), sebahagian Lot PT 24388 Seksyen Pembangunan Nilai Utama Mukim Setul Jalan Daerah Seremban, Negeri Sembilan Darul Khusus bagi SIME DARBY PROPERTY SDN BHD

- **Client** : Sime Darby Property
- **Scope** : Civil & Structural Consultant
- **IBS Element Involved** : Precast Wall, Precast Staircase & Precast Slab
- **Year Complete** : 2014

12. Cadangan Pembangunan Bercampur (Perumahan Dan Perniagaan Blok Berkelompok dan Rumah Bandar 4 Tingkat , Fasa 1A atas Lot 14679, 14680 (Lot Asal 3328) Dan Lot 2774 Seksyen Mukim Labu Jalan Daerah Seremban, Negeri Sembilan Darul Khusus bagi SD Bandar Gemilang Development Sdn. Bhd

- **Client** : **Sime Darby Property**
- **Scope** : Structural Independent Check Consultant
- **IBS Elements Involved** : Precast Wall, Precast Slab, Precast Staircase
- **Year Complete** : 2014

13. Cadangan Membina dan Menyiapkan Projek IBS bagi Bagi Sekolah Menengah Kebangsaan Putra Height, Subang Jaya, Selangor Darul Ehsan.

- **Main Contractor** : **PROTAP SDN BHD**
- **Buildings Involved** : Blok Akademik & Admin .
- **IBS Elements Involved** : Precast Columns, Precast Beam, Precast Staircase & Precast Lattice Slabs.
- **Year Complete** : 2013

NS PREFAB CONSULTANCY

14. Cadangan Pembangunan 'Kolej Kediaman Pelajar KK4' Di UMP Gambnag, Di Atas Lot 12691 Mukim Kuala Kuantan, Daerah Kuantan, Pahang.

- **Main Contractor** : **KUB Builders Sdn Bhd**
- **Buildings Involved** : 1 Blok Komersial & 2 Blok Kediaman
- **IBS Elements Involved** : Precast Columns, Precast Beams, Precast Slabs, Hollow Core Slab, Dry Walls and Precast Wall Panel, Precast Staircase
- **Estimated Project Cost** : RM 40 mil.
- **Year Complete** : 2014

15. Cadangan Membina dan Menyiapkan Bangunan Pejabat JKR Gombak

- **Main Contractor** : **LSB Construction Sdn Bhd**
- **Buildings Involved** : 1 Blok Pentadbiran
- **IBS Elements Involved** : Precast Columns, Precast Beams, Precast Slabs, Hollow Core Slab, Dry Walls and Precast Staircases.
- **Estimated Project Cost** : RM 176 mil.
- **Year Complete** : 2014

16. Cadangan Tambahan Kuarters Kelas G (18 Unit) Di Pusat Kesihatan Bandar Tun Razak, Rompin, Pahang

- **Main Contractor** : **Redarial Resources Sdn Bhd**
- **Buildings Involved** : 1 Blok Kuarters
- **IBS Elements Involved** : Precast Columns, Precast Beams, Precast Slabs, Hollow Core Slab and Precast Staircases.
- **Estimated Project Cost** : RM 300 mil.
- **Year Complete** : 2016

17. Cadangan Pembangunan Perumahan Generasi Baharu FELDA Di Wilayah Raja Alias, Felda Pasoh 2&3 (220 Unit)

- **Main Contractor** : **MBN Consortium Sdn Bhd**
- **Buildings Involved** : 220 Unit Rumah Teres 1 Tingkat
- **IBS Elements Involved** : Precast Wall Panel
- **Estimated Project Cost** : RM 69 mil.
- **Project Progress / Status** : In Progress
- **Year Complete** : 2015

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18. Cadangan Membina dan Menyiapkan 400 Unit Rumah Teres 1 Tingkat Untuk Perumahan Genereasi Baharu FELDA (PGBF) Di Atas Tanah Rancangan FELDA Keratong 7, Mukim Keratong, Daerah Rompin, Pahang Darul Makmur.

- **Main Contractor** : **Alor Setar Saujana (M) Sdn Bhd**
- **Buildings Involved** : 400 Unit Rumah Teres 1 Tingkat
- **IBS Elements Involved** : Precast Wall Panels
- **Estimated Project Cost** : RM 50 mil.
- **Project Progress / Status** : In Progress
- **Year Complete** : 2015

19. Cadangan Membina 1 Blok Bangunan Tempat Letak Kereta Beringkat (MSCP2), Technology Park Malaysia, Bukit Jalil, Kuala Lumpur

- **Main Contractor** : **FN Communication Sdn Bhd**
- **Buildings Involved** : 1 Blok Tempat Letak Kereta
- **IBS Elements Involved** : Precast Beam, Precast Column, Precast Parapet Wall & Hollow Core Slab
- **Estimated Project Cost** : RM 69 mil.
- **Project Progress / Status** : In Progress
- **Year Complete** : 2015

20. Cadangan Membina 1 Blok Bangunan Tempat Letak Kereta Beringkat (MSCP3), Technology Park Malaysia, Bukit Jalil, Kuala Lumpur

- **Main Contractor** : **DISB Group of Companies**
- **Buildings Involved** : 1 Blok Tempat Letak Kereta
- **IBS Elements Involved** : Precast Beam, Precast Column, Precast Parapet Wall & Hollow Core Slab
- **Estimated Project Cost** : RM 90 mil.
- **Project Progress** : In Progress
- **Year Complete** : 2015

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21. **Pembinaan Semula Kuarters Jabatan Kebajikan Masyarakat (JKM) Di Rumah Seri Kenangan Tanjung Rambutan, Perak**

- **Main Contractor : Retrofit System Sdn Bhd**
- **Buildings Involved** : 1 Blok Kuarters
- **IBS Elements Involved** : Precast Columns, Precast Beams, Precast Wall Panel, Precast Half Slab.
- **Estimated Project Cost** : RM 150 mil.
- **Project Progress / Status** : In Progress
- **Year Complete** : 2016

22. **Proposed Construction & Completion of Two (2) Tower of Serviced Apartment on Lot 74256, Jalan Putra Murni 3/1, Putra Height, Mukim Damansara, Daerah Petaling, Selangor Darul Ehsan.**

- **Clients : Sime Darby USJ Development Sdn Bhd**
- **Estimated Project Cost** : 110 mil
- **Project Progress / Status** : In Progress
- **Date Commence** : 2015

23. **Cadangan Membina 900 Unit Rumah Mampu Milik Di Atas Sebahagian Lot 614, Pekan Templer, Daerah Gombak Majlis Perbandaran Selayang - Rumah Selangor Ku**

- **Clients : Setia Eco Templer Sdn Bhd**
- **Estimated Project Cost** : 115 mil
- **Project Progress / Status** : In Progress
- **Date Commence** : October 2014

24. **Proposed 3 Blocks SOHO 650 Unit 25-34 Storey and Amenities At Lot 4820, Bandar Bukit Mahkota, Mukim Beranang, Daerah Hulu Langat, Selangor**

- **Clients : Citra Hartamas Sdn Bhd**
- **Estimated Project Cost** : 120 mil
- **Project Progress / Status** : In Progress
- **Date Commence** : October 2013

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25. **Cadangan Pembangunan 2 Blok Rumah Pangsa Kos Sederhana 11 Tingkat (700 unit) Di Atas Sebahagian Lot 7717, No. 1, Jalan Setia Gemilang U13/47, Setia Alam, Seksyen U13, Shah Alam**

- **Clients** : **Bandar Setia Alam Sdn Bhd**
- **Estimated Project Cost** : 115 mil
- **Project Progress / Status** : In Progress
- **Date Commence** : October 2012

26. **Cadangan Pembangunan 6 Blok Rumah Pangsa 10 Tingkat (948 Unit) KSR (RPSR) Di Atas Sebahagian Lot 16751, No. 2, Jalan Setia Gemilang U13/45C, Setia Alam, Seksyen U13, Shah Alam**

- **Clients** : **Bandar Setia Alam Sdn Bhd**
- **Estimated Project Cost** :115 mil
- **Project Progress / Status** : In Progress
- **Date Commence** : April 2012

27. **Cadangan Pembangunan 4 Blok Pangsapuri Dwiputra (880 unit) 16 ke 25 Tingkat yang Mengandungi Kemudahan-Kemudahan Awam di atas Sebahagian Lot 9181, Seluas 11 Ekar, Presint 15, Wilayah Persekutuan Putrajaya**

- **Clients** : **Setia Putrajaya Development Sdn Bhd**
- **Estimated Project Cost** : 250 mil
- **Project Progress / Status** : In Progress
- **Date Commence** : August 2011

NS PREFAB CONSULTANCY

PROJECT UNDERTAKEN BY NS PREFAB CONSULTANCY

(Civil & Structural Consultant with Industrialize Building System (IBS) Specialization)

1. **Cadangan Membina dan Menyiapkan Projek IBS bagi Sekolah Tunas Bakti, Jerantut, Pahang Darul Makmur.**

   - **Contractor** : **Build Land Technology SB**
   - **IBS Element Involved** : Precast Column, Precast Beam, Precast Slab, Precast Wall & Precast Staircase
   - **Estimated Project Cost** : RM 33 mil
   - **Project Progress / Status** : Production Stage
   - **Year Complete** : 2016

2. **Cadangan Membina dan Menyiapkan Projek IBS bagi Cadangan Pembangunan Perumahan Mampu Milik Taman Penawar Harmoni di atas PTB 12904 & PTB 12905 di Bandar Penawar, Kota Tinggi, Johor**

   - **Contractor** : **BA Urus Bina**
   - **IBS Element Involved** : Precast Wall Panel & Precast Gable End
   - **Estimated Project Cost** : RM 70 mil
   - **Project Progress / Status** : **Production & In**
   - **Year Complete** : 2017

NS PREFAB CONSULTANCY

CERTIFICATE OF
COMPANY REGISTRATION

(Borang F)

AKTA PENDAFTARAN JURUTERA 1967
PERATURAN-PERATURAN PENDAFTARAN JURUTERA 1990
(PERATURAN 35)

No. Perakuan: **1515-1000-SP-1429**

LEMBAGA JURUTERA MALAYSIA

PERAKUAN PENDAFTARAN SEBAGAI AMALAN JURUTERA PERUNDING

INI ADALAH UNTUK MEMPERAKUI BAHAWA

Nama: **Pemilik Tunggal**
NS PREFAB CONSULTANCY

Alamat: **108-1 JALAN TKS - 4**
TAMAN KOMERSIL SENAWANG
70450 SEREMBAN NEGERI SEMBILAN

Cawangan Kejuruteraan: **** CIVIL ****

yang telah mematuhi kehendak-kehendak Akta Pendaftaran Jurutera 1967 dan telah membayar fee pendaftaran didaftarkan sebagai suatu AMALAN JURUTERA PERUNDING dalam cawangan kejuruteraan yang dinyatakan di atas tertakluk kepada syarat-syarat yang dinyatakan di bawah.

Syarat-syarat:

Perakuan pendaftaran ini akan habis tempoh pada **31 DISEMBER 2015**

(DATUK Ir. ADANAN BIN MOHAMED HUSSAIN)
Yang Dipertua

(Ir. HIZAMUL-DIN BIN AB. RAHMAN)
Pendaftar

Tarikh dikeluarkan: **20 AUGUST 2015**

*** No. Resit 260333 ** M2U 13072015(2555372428) ** RM1,065.00 ** Tarikh bayaran:14-07-2015***
[RM1,000.00(Fee Pendaftaran) RM50.00(Fee Pemprosesan) RM15.00(Others)]
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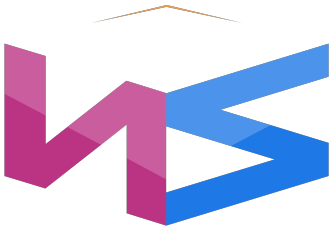

NS PREFAB CONSULTANCY

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