The Construction of the Langham Place in Mong Kok – An Introduction
Artist Impression of Langham Place
Fast Fact

The site located in the heart of the Mongkok District and bounded on four sides by Argyle Street, Portland Street, Shan Tung Street and Shanghai Street, with a site area of about 12,000 square metre.
In the project, a retail/shopping/entertainment centre of 51,000 sq. m; a Grade A office tower of 70,000 sq. m, and a 5-star Langham Place Hotel of 40,000 sq. m. comprising about 720 rooms are constructed. In addition, 6,000 sq. m. of building area are used as Government/Institution/Community facilities including a public light bus terminus in the ground level of the hotel block.
Total Contract sum about $3.5 billion.

Contractor: Sun Fook Kong Holdings Limited

Foundation Contract commenced in March 1999 to November 2001

Main Contract commenced in December 2001 for completion in July 2004
External view of Langham Place at seen in November 2003
Foundation Works in general
Layout Plan showing the cut-off arrangement and location of bored piles
The site as seen in 1999 before the commencement of foundation works
The site as seen in June 2000 at the early stage of foundation construction
Foundation Work at Site A

Foundation Work at Site B
Forming the large diameter bored pile using RCD (left) and Grab & Chisel Method.
Excavation for the diaphragm wall

Other cut-off provision using bored pile
Construction of the Office Tower – Basement portion
Commencement of excavation to form the raft foundation for tower block
Provision of a work platform for the stationing of equipment and handling of spoil to facilitate the excavation process
Detail of the lateral support frame as seen inside the excavation pit
Construction of the basement structure using in-situ timber formwork from the foundation raft

Composite column for the tower block
Gradual ascending of the basement structure
Dewatering arrangement – well points provided around the cut-off wall
Completion of the basement portion of the tower block up to ground level
Construction of the Office Tower – Podium/Transfer plate
Construction of entrance foyer and the transfer plate for the support of the tower block upper structure.
Slab and core wall below the transfer plate
Construction of the Office Tower – Core Wall
Erection of a climb-form for the construction of the core wall starting from the transfer plate.

Completed climb-form ready for operation.
Panels before erected onto the main frame of the formwork system

Erection of the climb-form
The first section of core wall was formed by the climb-form without lifting.

Climb-form erected on the transfer plate ready for the first lift.
The climb-form system as seen on the platform deck level

Hydraulic jack for lifting the form system
The climb-form system as seen under the platform deck.
Detail of the hydraulic jack that lifts the climb-form
The external view of the climb form under routine operation

Climb-form being dismantled after the topping out of the core wall at 58/F
Construction of the Office Tower – Floor System
Construction of the typical floor of the office block using a table form
Detail of the table form
Forming of the floor in two phases
A special climbing-type material hoist for lifting of formwork material from lower floor to the deck level.

Traditional timber floor was used at a later stage.
Floor beams take shape
Link bars provisioned in core wall for connecting slab and beam afterward.

The jointing of the slab to the core wall
Construction of the Office Tower – Outrigger System
Two sets of outrigger frames were provided on 26/F and 44/F to stiffen the superstructure.
Detail of the outrigger and the outer truss
Connection of the outrigger member to the floor and core wall
Encasing the outrigger frame with concrete at a later stage
Construction of the Retail Podium – Basement
Forming the ground floor slab as the first plate before the full-scale commencement of the basement works
Steel columns founded on bored-pile as support for the basement structure during the top-down construction process.

Forming of the ground floor slab by the support of the steel columns.
Onward development of the ground floor slab
Completion of the ground floor slab with a muck-opening temporary provided to facilitate further excavation downward
Onward excavation worked around the muck-opening
Onward excavation inside the basement
Forming the vehicular ramp at Shan Tung Street which served also as the temporary access for the removal of spoil from the basement.
Constructing the ramp in top-down manner using traditional timber formwork
The vehicular ramp undergoing a top-down construction process at seen at the lower basement level.
Construction of the Office Tower –
Other Features
Finishing the office interior
Building services installation
An semi-self climbing scaffold provided as work screen on the top deck levels
Temporary material hoist
Roof features – provision of a steel dome at the roof of the tower block
Construction of the Retail Podium – Podium Structure
Commencement of the retail podium construction with floor slab supported on steel columns (the first 2 levels of podium constructed in RC slab)
void for an interior atrium strip

forming the steel frame of the retail podium
The void for the atrium

Forming the steel frame of the retail podium
Voids as atrium spaces
Development of the podium structure
The framing arrangement of the podium as seen on the intermediate levels
Detail seeing the complicated layout of the structural steel frame.
25m high atrium

Complicated interior space within the podium
Construction of the Retail Podium – Roof and the Atrium
The 30m-high Grand Atrium located on the 4-level of the retail podium
Installing the trussed columns for the Grand Atrium
Temporary lateral trusses erected in rows to stabilize the steel columns before the final erection of the roof trusses.
The 30m high Grand Atrium space took shape
Grand Atrium space formed by trussed columns and a trussed roof frame
Sequential views to see the gradual completion of the podium (1)
Sequential views to see the gradual completion of the podium (2)
Sequential views to see the gradual completion of the podium (3)
Sequential views to see the gradual completion of the podium (4)
Laying the roof deck and the roofing layer
Spaces inside the podium roof and atrium interior
Spaces inside the Grand Atrium interior
Construction of the Hotel Block
An aerial view seeing the hotel block and the retail podium
Roof Features

Lift core

Hotel room block
Construction of the Hotel Block – Basement
Commencement of the basement excavation by installing the first layer of lateral support strut frame
Seeing the excavation inside the basement pit
Works at the formation level
Construction the basement from the formation level using bottom-up approach
Forming the basement wall
Construction of the Hotel Block – the Superstructure
Composite columns are used up to 3/F to provide larger span at the ground level which used as a public transport facility.

Construction of the podium of the hotel block
Lift core block

Hotel compartment block
Construction of the lift core block using a type of large-panel formwork
Layout of the large-panel steel formwork for the construction of the load bearing walls of the hotel apartment block
Formwork detail as seen on deck level
Roof features
Installation of the curtain wall
Other Provision –

Pedestrian Tunnel crossing Shanghai Street
Forming of a cut-off across Shanghai Street using drilled piles
Temporary traffic diversion arrangement during the forming of the cut-off for the underground vehicular tunnel
Temporary traffic diversion arrangement during the forming of the cut-off for the underground vehicular tunnel.
Excavate and constructing the tunnel in phases using bottom up method.
Other Provision –
Pedestrian Footbridge crossing Shanghai Street
Construction of two footbridges to link up the two buildings within the development
Completion of the steel footbridges ready for the installation of glass wall
End of presentation