



# NEC Annual Seminar

West Island Line Contract No. 713

Re-Provisioning of Kennedy Town Swimming Pool (Phase 2)



- 1. Introduction - MTR WIL Project Manager, Mr. Steve Hamill**
- 2. Project Information**
- 3. Adoption of NEC Contract for Phase 2 swimming pool**
- 4. Aerial Video - Paul Y General Manager, Mr. Stanley Lo**
- 5. Experience Sharing**
  - 5.1 Early Completion Bonus**
  - 5.2 Project Completion Document**
  - 5.3 General Matters**

# 1. Introduction

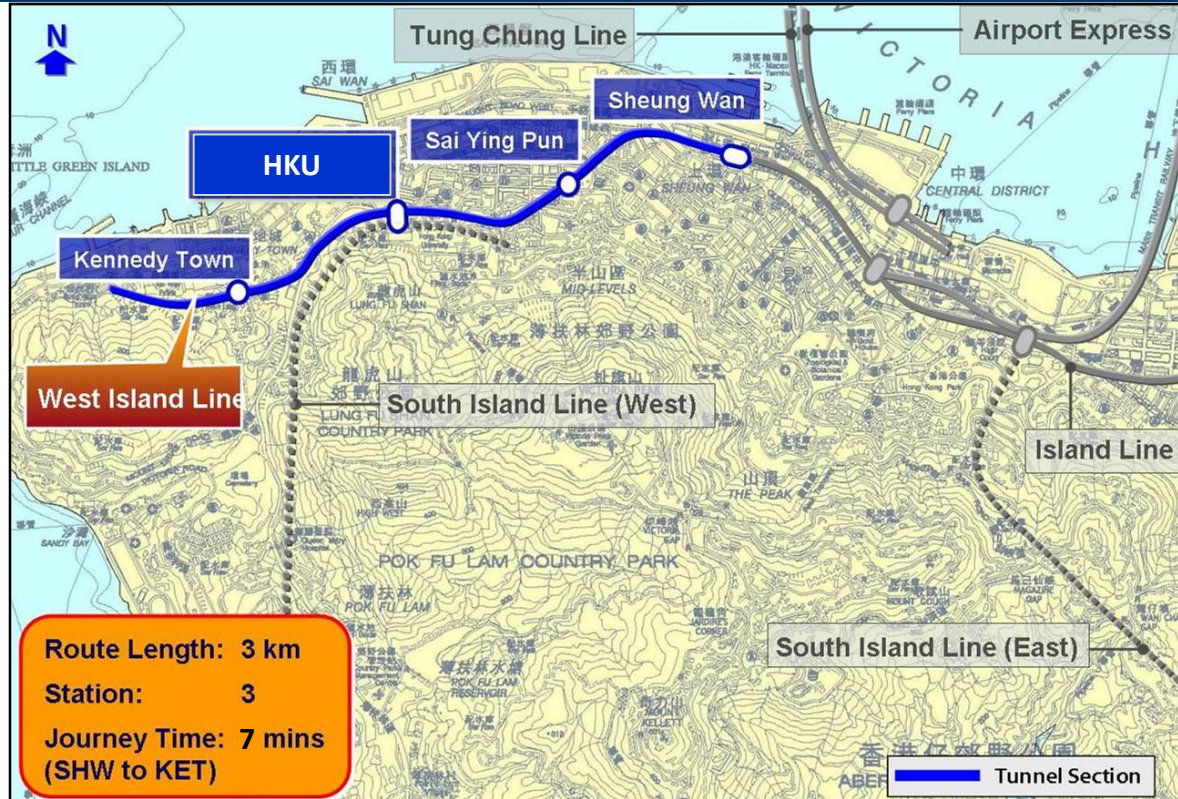
**MTR WIL Project Manager, Mr. Steve Hamill**

## 2. Project Information

# West Island Line Overview



# West Island Line Overview





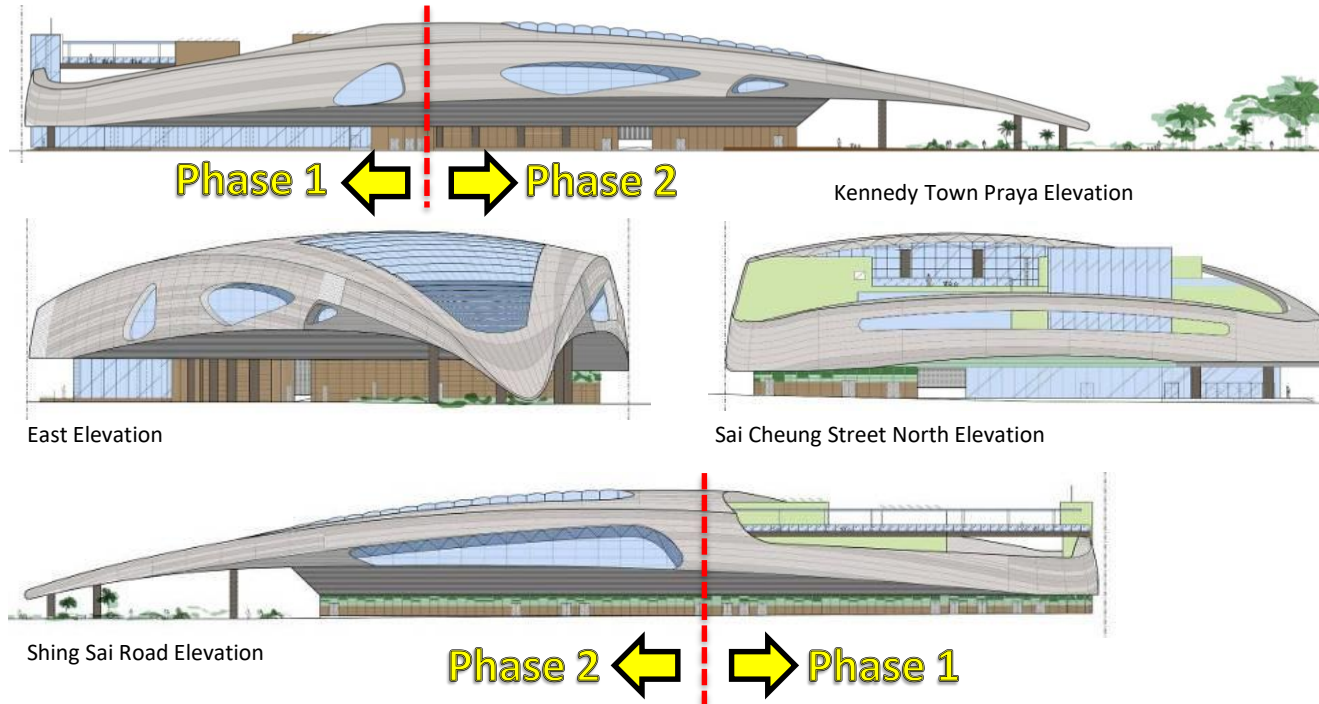
# West Island Line Overview



# Kennedy Town Station (KET)







Elevations

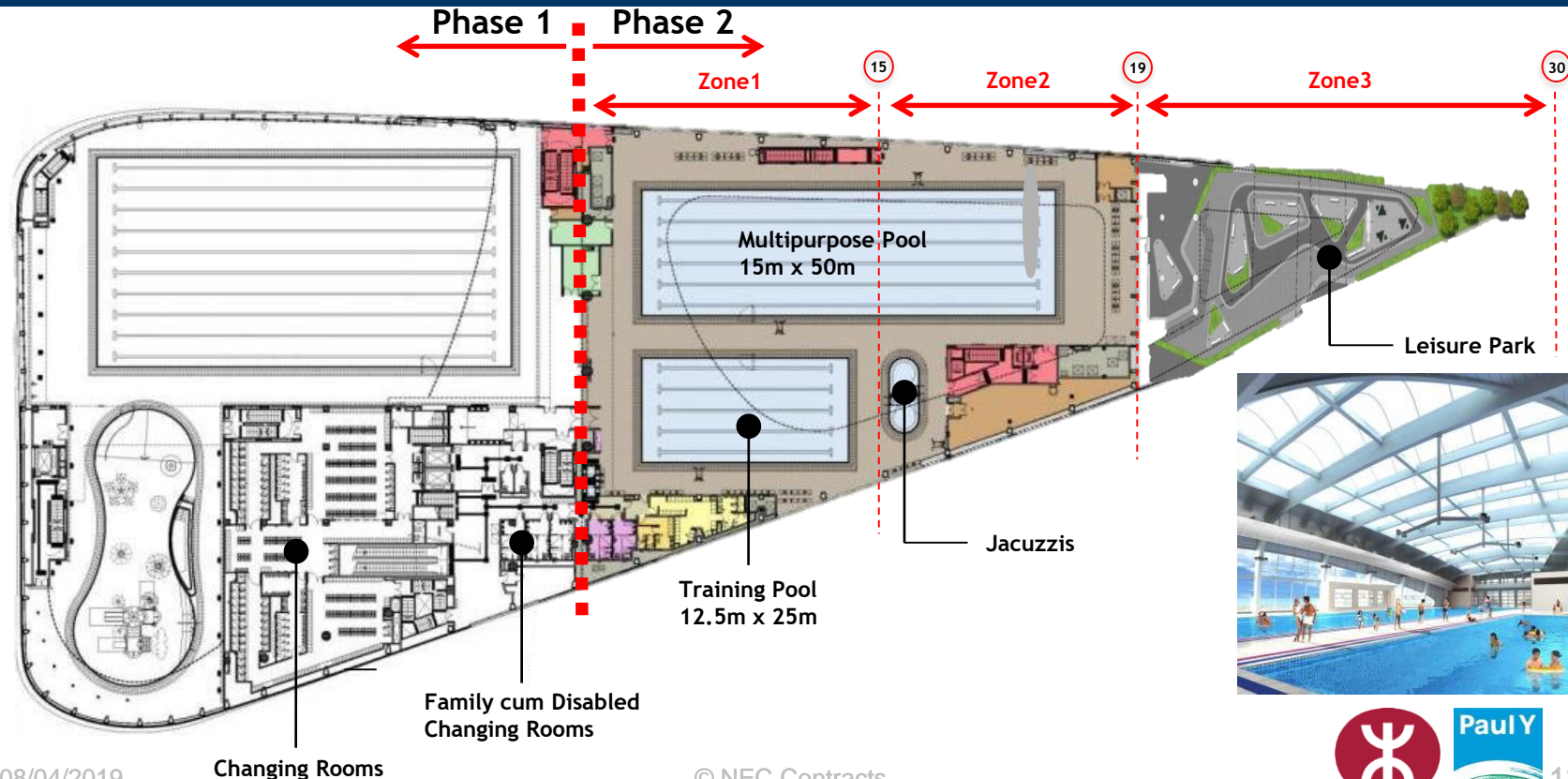
# Project Information



	<b>Phase 1 Contract 710</b>	<b>Phase 2 Contract 713</b>
<b>Start</b>	14 Jul 2009	1 Sep 2014
<b>Completion</b>	14 Mar 2011	30 Oct 2016 (3 Nov 2016 – EOT granted)
<b>Contract Period</b>	20 months	26 months
<b>Form of Contract</b>	MTR Lump Sum (without quantities)	NEC3 Option A (with relevant MTR Conditions)
<b>Contract Sum</b>	HK\$ 311 million (£27.8 million)	HK\$ 671 million (£60 million)
<b>Gross Floor Area</b>	13,494 m <sup>2</sup>	7,058 m <sup>2</sup>
<b>Final Account</b>	Apr 2011	Nov 2016 (envisaged)

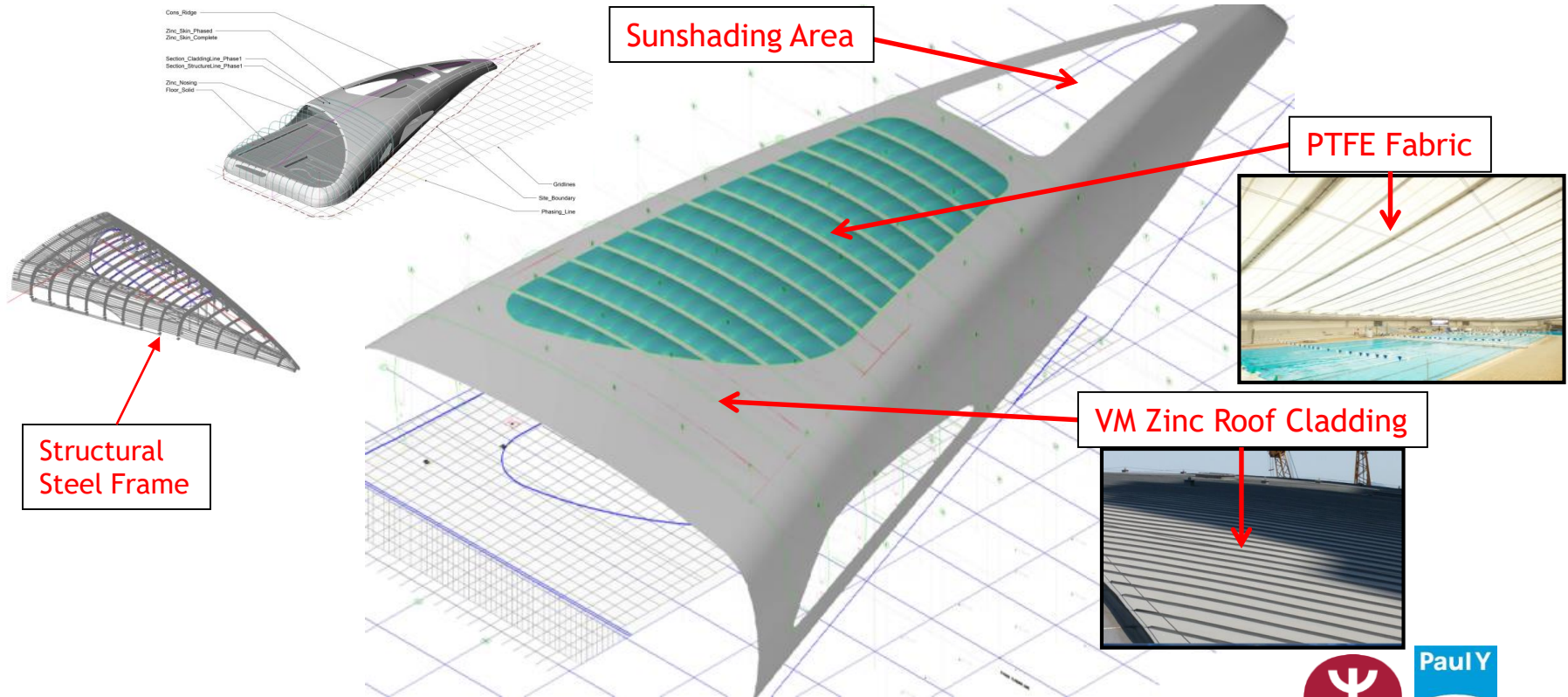
1. Bored Piles and Pile Caps
2. Superstructure – RC and Structural Steel
3. Architectural Building Works and Finishes
4. Phase 1 Interfacing and Improvement Works
5. Building Services
6. Built-in Furniture
7. Landscaping

# Project Information – Building Facilities





# Project Information - Roof 3D Layout



# **3. Adoption of NEC Contract for Phase 2 Swimming Pool**

# Decision to Adopt NEC3



- Phase I swimming pool carried out under conventional MTR Form of Contract (lump sum without quantities)
- Phase I opened on time and within budget – so why change for Phase II ?
- Success of Phase I gave good opportunity for comparison study
- MTR Partnering approach well established, therefore moving to more contractually binding form of partnering contract is a logical progression

# Decision to Adopt NEC3



- Hong Kong Government approach towards adopting NEC3 Contract
- MTR always looking to improve on Project Performance
- Success of NEC3 will augment the existing MTR suite of contracts



- Conformed tender documents to comply with NEC3 (Option A)
- Appointment of NEC Contract advisers
- Review NEC3 clauses and modify where necessary (minimal changes and no Z Clauses)
- Extensive workshop training for both MTR and design consultants' staff prior to tender preparation
- Workshop for tenderers to enable understanding of NEC3 tender documents

- Extended NEC advisers' contract for construction phase
- Conducted start up workshops to explain requirements of NEC form of contract
- Conducted further workshops for MTR, Consultants' and Contractors' staff
- Established procedures, design meeting, risk reduction meeting, compensation event meeting etc. to administer NEC Contract

- Achieved timely and equitable resolutions
  - on late access to site
  - modified foundations technical problems
- Adopted Potential Early Warning System
- Early implementation of risk reduction measures

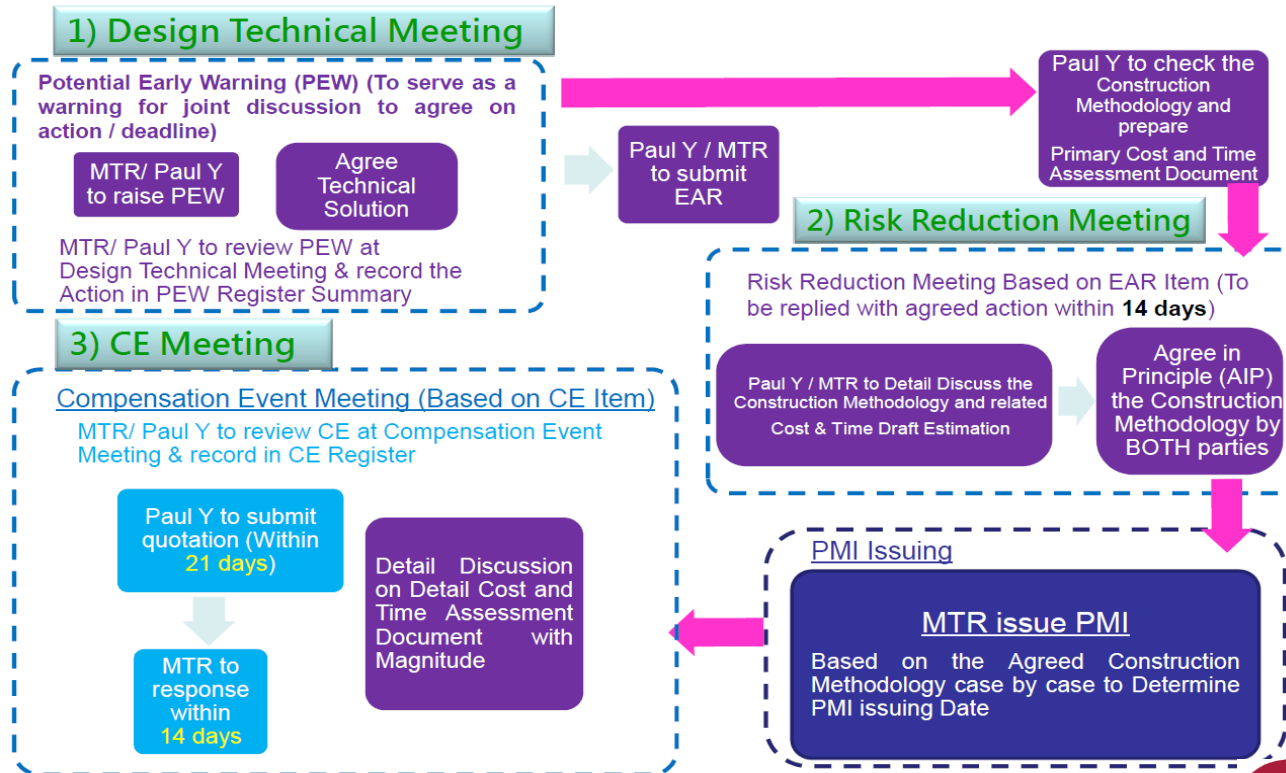
# Early Successes (cont'd)



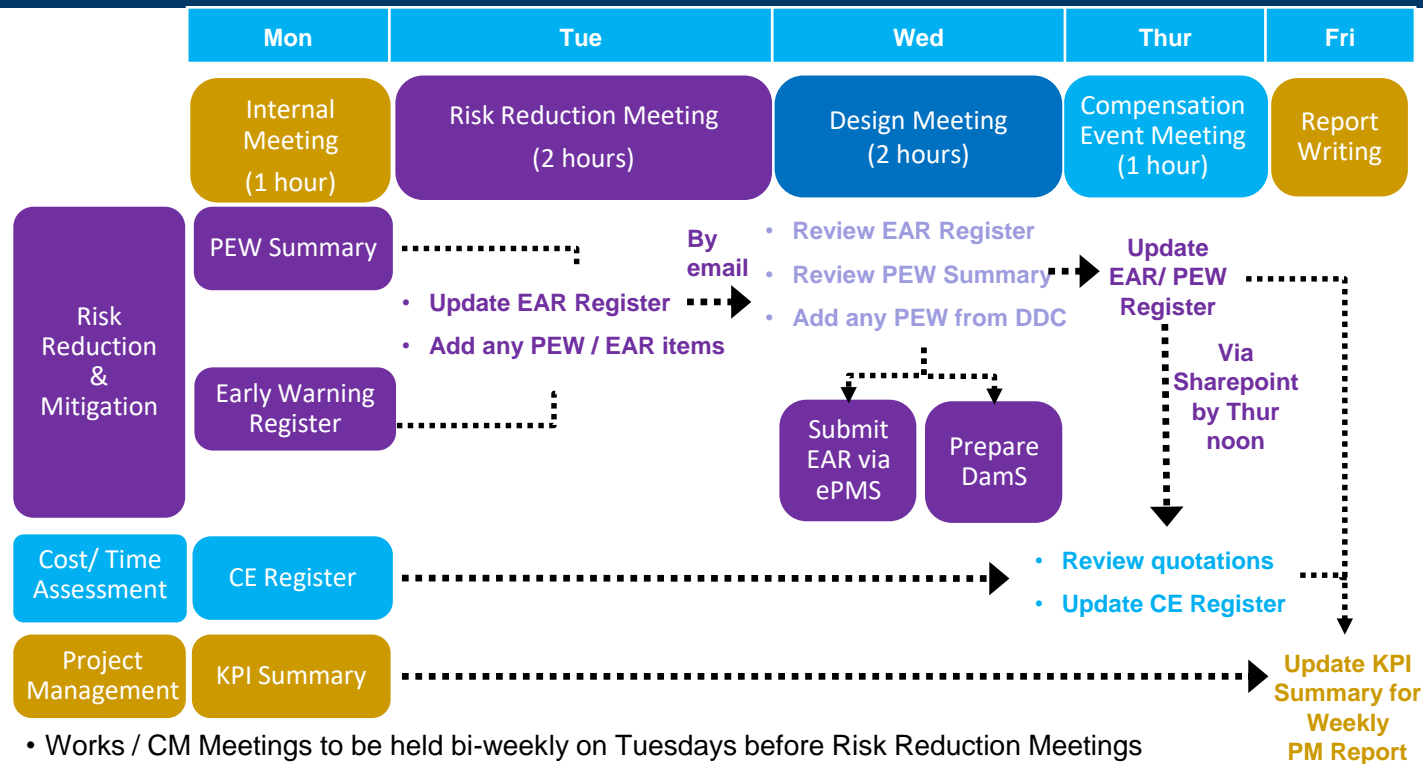
- Realized programme savings quickly
- 'Real time' updating of cost and programme
- High level 'buy in' from the full team
- Developed mutual trust and respect



# Current NEC Work Flow System



# NEC3 Work Flow – Regular Meeting Schedule



- Works / CM Meetings to be held bi-weekly on Tuesdays before Risk Reduction Meetings
- Sketch/ DamS/ DIS Register is contained in PEW Summary

# KPI Monitoring Summary



## Early Warning and Compensation Event Summary

### WIL 713 KPI Summary

1<sup>st</sup> – 7<sup>th</sup> April 2016

Workflow	Total Issued	Quotation Received from PYC	Agreed Quotations	PYC to submit quotations	MTR to reply	PYC to submit quotations	MTR to reply	Turnaround Days	
								Average	Target
Compensation Event	114	111	111	3	0	0	0	10	14
Workflow	Issued					Keep In View	Closed out		
	This Week (Last Week)				Total				
Early Warning (EAR)	9				210	23	187		

### Current status:

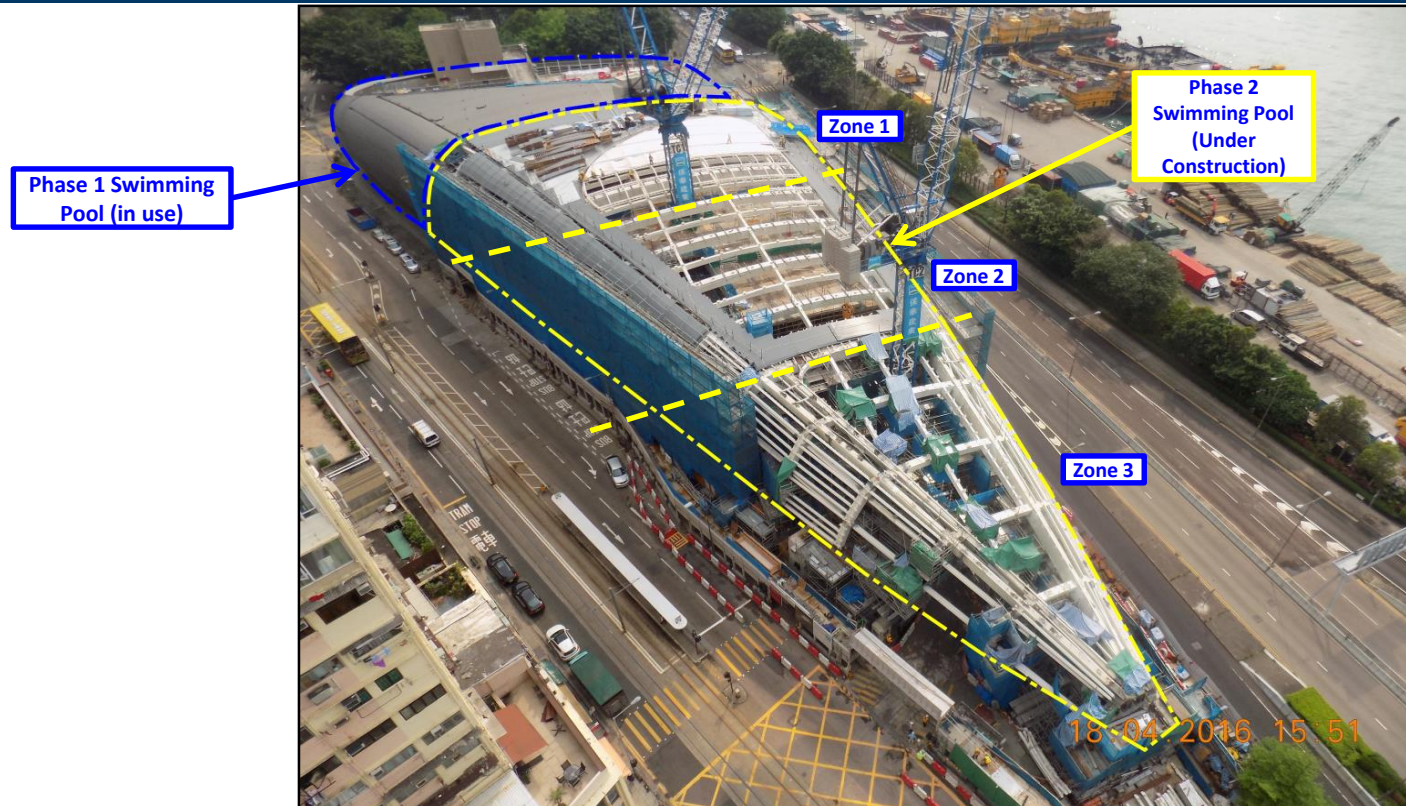
- 1) CE Event Quotations – 98% agreed.
- 2) Early Warnings - 90% closed out.
- 3) MTR response to Paul Y submissions = Average 10 days.



## **4. Aerial Video**

**Paul Y General Manager, Mr. Stanley Lo**



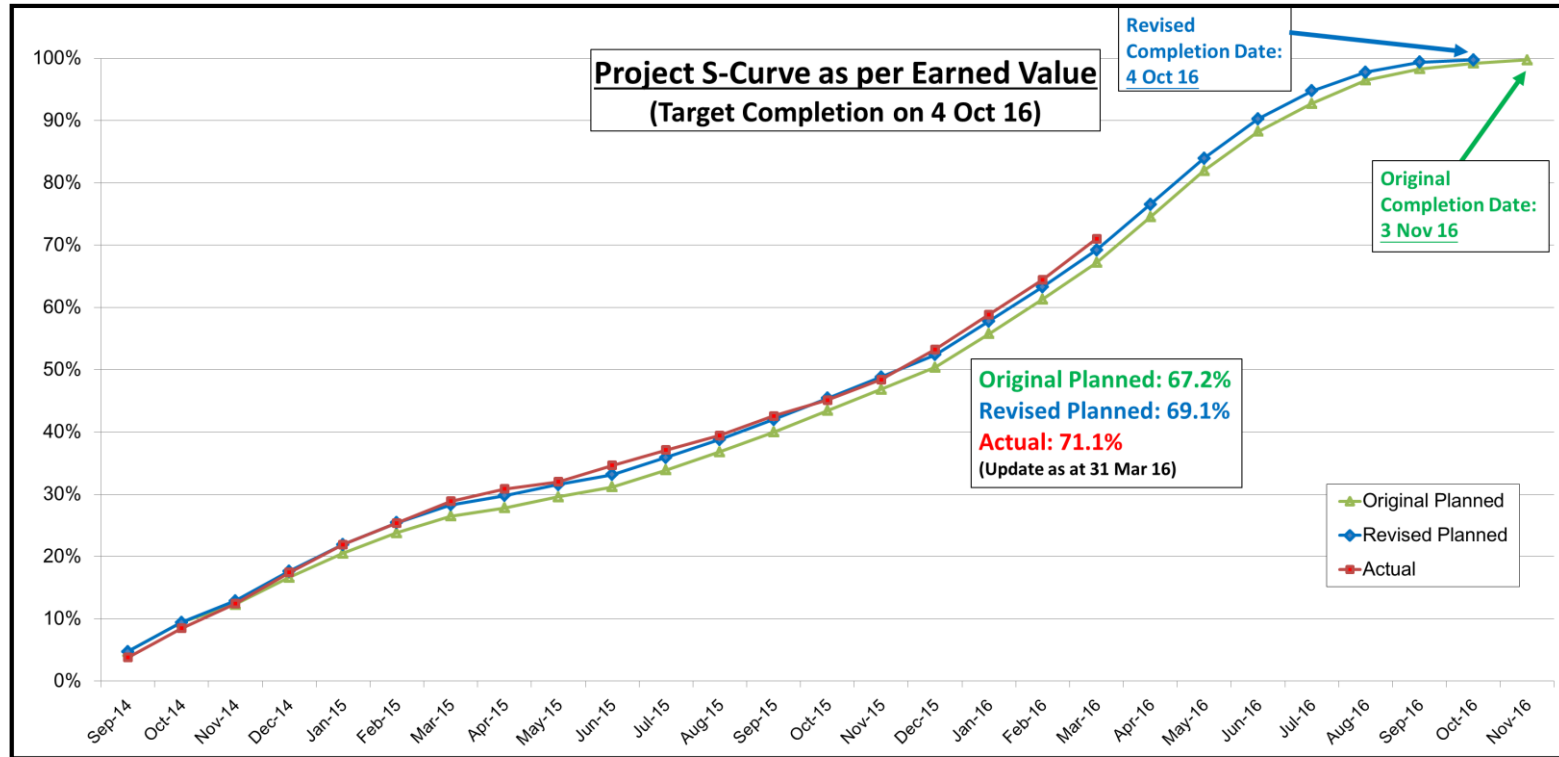


## **5. Experience Sharing**

### **5.1 Early Completion Bonus**



# Early Completion Bonus



# Early Completion Bonus



- The completion of foundation is 4 weeks earlier than planned programme.
- Pursuant to NEC Contract, Paul Y is entitled to a bonus if early completion is indeed achieved
- Paul Y considered it an opportunity to maintain this advancement until the project completion by increasing resources, plant and optimizing construction method / sequence.
- Paul Y submitted an Early Warning on project completion to seek approvals from MTR and Leisure and Cultural Services Department of Hong Kong Government (“LCSD”)
- Early Completion Bonus allows Paul Y to commit additional resources, plant and materials to maintain 4 weeks programme advancement through early planning and collaborative working with MTR and Government.

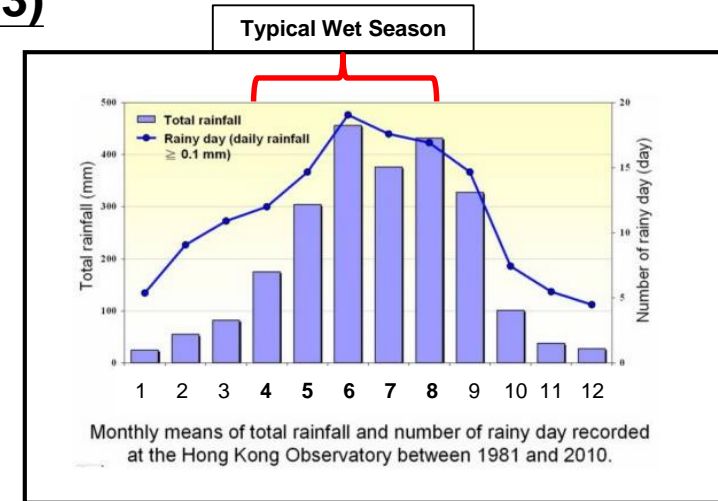
## Risk Management - Structural Steel Roof

# Early Completion Bonus



## Risk on Remaining Structural Steel Roof (Zone 3)

- Wet season is from April to August in Hong Kong.
- Recent rainy days tend to come earlier.
- Measures implemented to ensure Zones 1 & 2 welding completed before wet season.
- Zone 3 welding activities unavoidably fall in wet season.
- Paul Y issued EAR to alert potential delay which may be caused by early inclement weather



# Early Completion Bonus



## Risk Management and Control Measures

- To ensure Zones 1 & 2 welding completed before wet season in April and to minimize Zone 3 welding during wet season, the following measures are implemented:
  - To increase production rate.
  - Since February, the number of welders are increased.
  - To increase number of temporary platforms.
  - With this production rate, we target to complete the structural steel roof by **29 April 16**.
- Minimized the risk of early wet season

	Actual. Welder Nos.
Jan	5
Feb	7
Mar	8
Apr	8

Total nos. of welders employed in April

# **5. Experience Sharing**

## **5.2 Project Completion Document**

- Sufficient time to be allowed for document preparation for handover of Government facilities.
- Handover documents at least six months before works completion.
- MTR agreed Paul Y completion document plan and jointly review the progress on a bi-weekly basis.



# **5. Experience Sharing**

## **5.3 General Matters**

- Swimming pool project is MTR and Paul Y's first NEC Contract.
- During the first 3 months of contract, MTR and Paul Y went through some teething issues and resulted in some heated debates.
- After that, both MTR and Paul Y acknowledged that mutual trust and respect were essential for achieving contract goals.
- MTR and Paul Y top managements' full support.
- MTR and Paul Y invested significant management resources on contract administration at the early stage, e.g. Risk Reduction Meeting, Compensation Event etc.

- NEC Contract provides a forum to promote:
  - open exchange of ideas and proposals,
  - cohesive working relationship between and within both teams
- Early investment of management resources will reduce engineering and QS resources to complete the final account.

# Thank You