



Why NEC in Hong Kong ? - DSD's experience on NEC

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Why NEC? Why partnering?

Disputes

No common
interests

Adversarial

TRUST

THE RISK IS YOURS,
NOT MINE!

Claim
conscious

Change!



Why NEC for DSD?

- Policy for pilot project
- Our aims:



Joint effective
problem solving

Less disputes

Better project
management

Team spirit

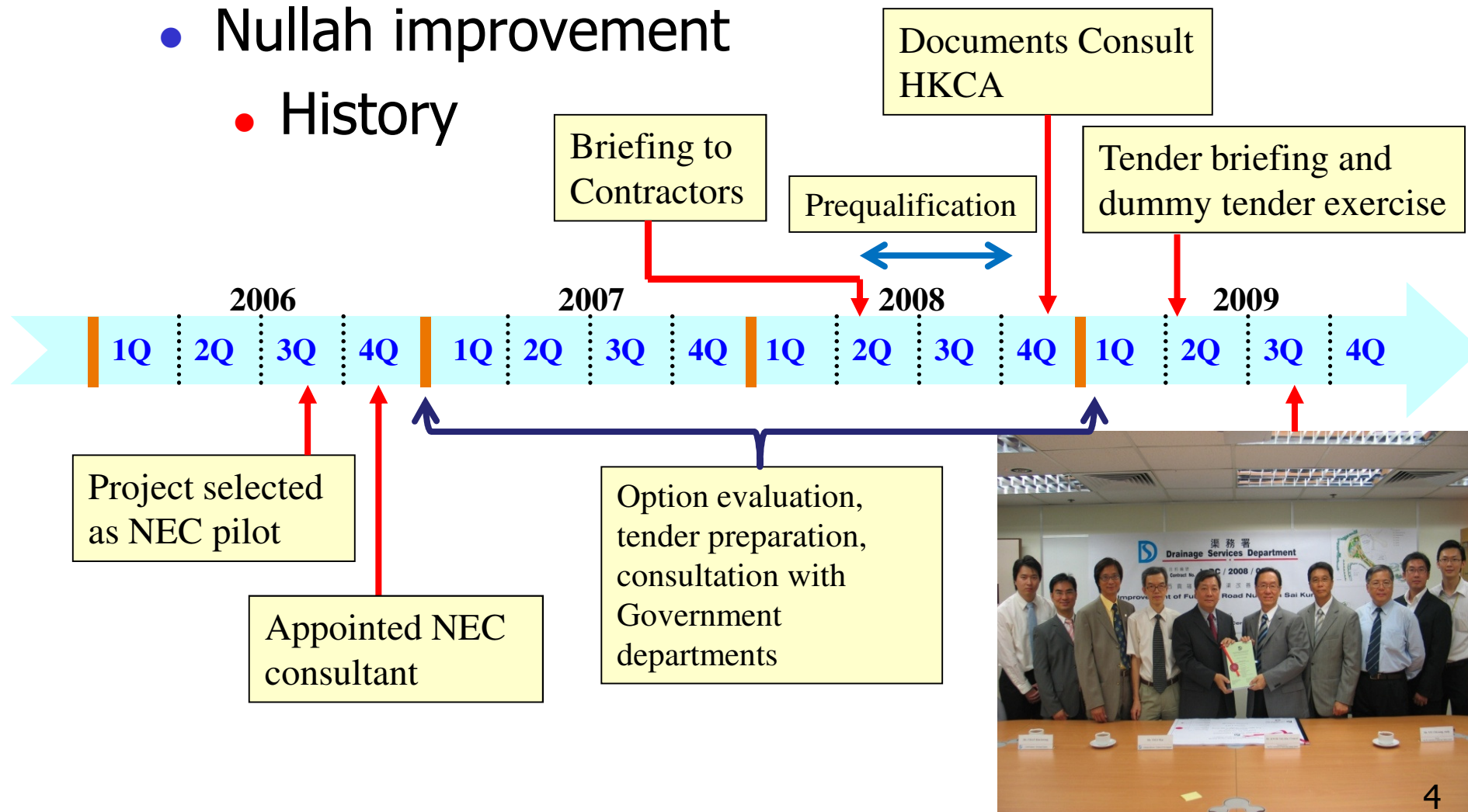




The 1st NEC Pilot Project

- Nullah improvement

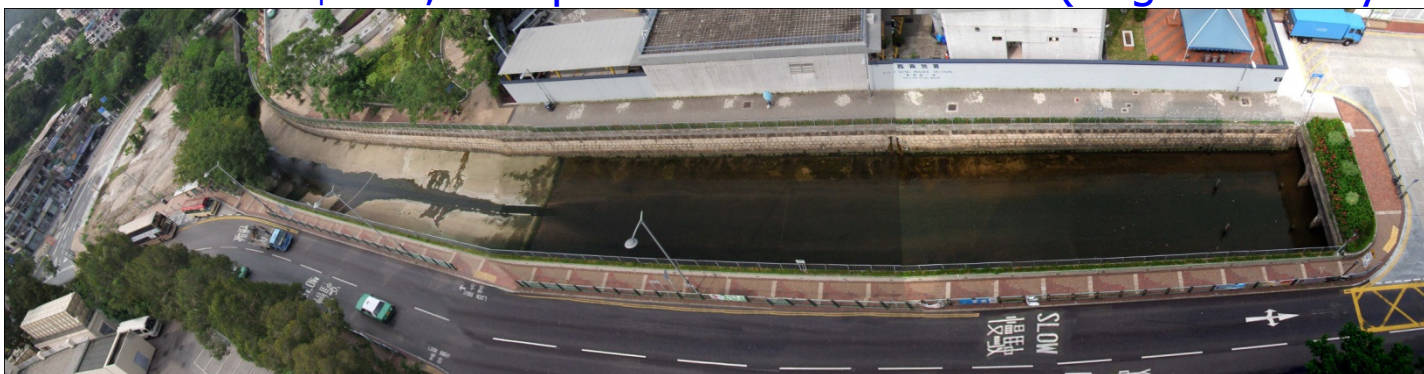
- History





The 1st NEC Pilot Project

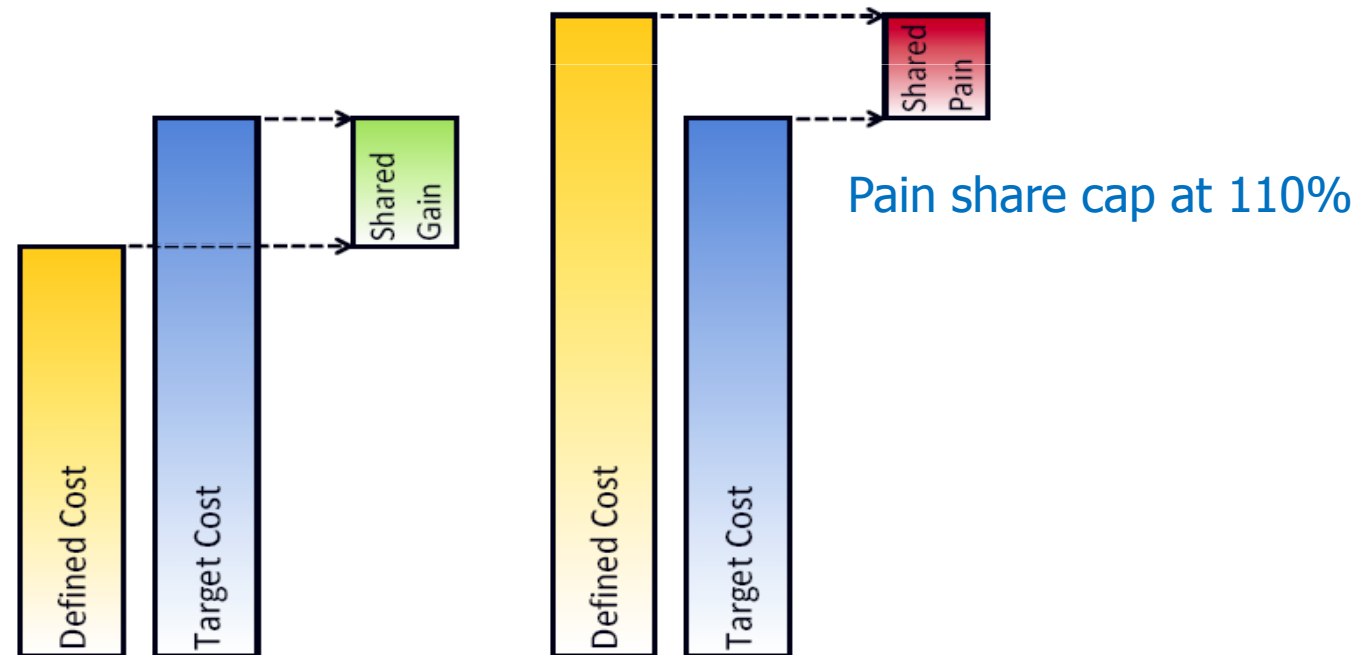
- Improvement of Fuk Man Road Nullah in Sai Kung
 - Decking of open nullah 180m long 12m wide and road improvement works
 - Contract sum \$76M; Completion time 33 months (Aug 09 to May 12)





The 1st NEC Pilot Project

- NEC Option Selection
 - Option C – Target contract with activity schedule
 - Pain/gain share mechanism (50:50)





Experience from Fuk Man Road Project

- Training to team members
- Realizing Partnering spirit
 - Partnering workshops
 - Joint site office
 - Joint problem solving
- Contract administration
 - Proactive participation by Project Manager, Supervisor and Contractor
 - Risk management – early warnings and meetings
 - Open book account – transparent





Experience from Fuk Man Road Project



NEC

Joint effective
problem solving

Less disputes

Better project
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Team spirit



Experience from Fuk Man Road Project

Joint effective problem solving

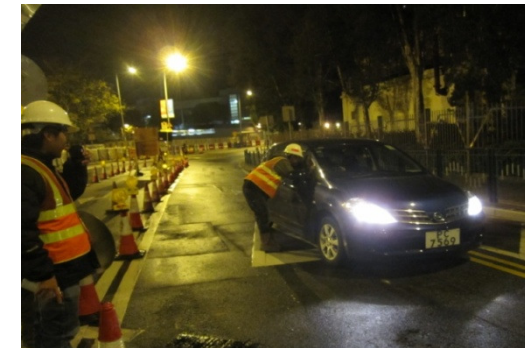
- Roundabout reconstruction
 - Busiest roundabout in Sai Kung
 - Completed within 4 days
 - Maintaining traffic flow
 - **Early Warning**, **Prompt Action** & **Joint Effort**



Consult local representatives



Distributing
information leaflets

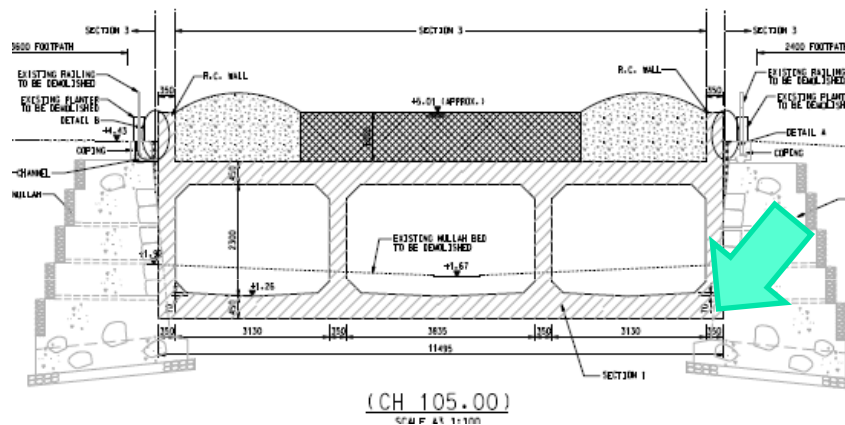


Traffic ambassadors

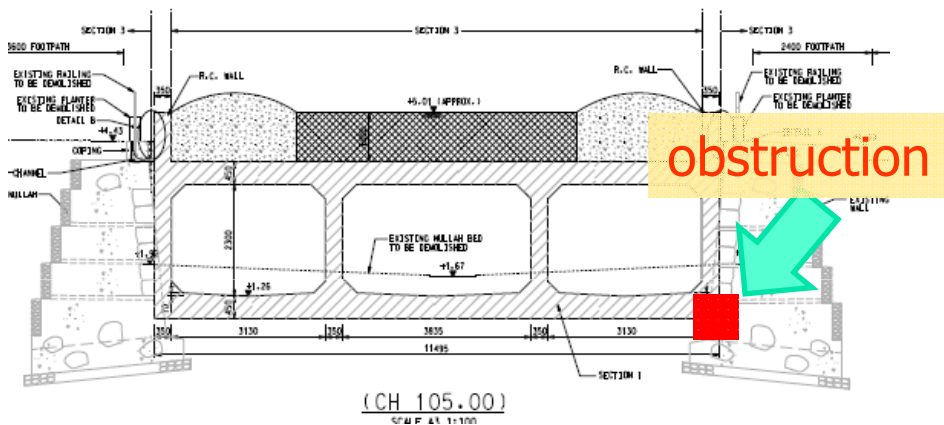


Experience from Fuk Man Road Project

Less disputes



Original Contract Drawing



Actual Site Condition
(Obstructed by existing nullah wall)

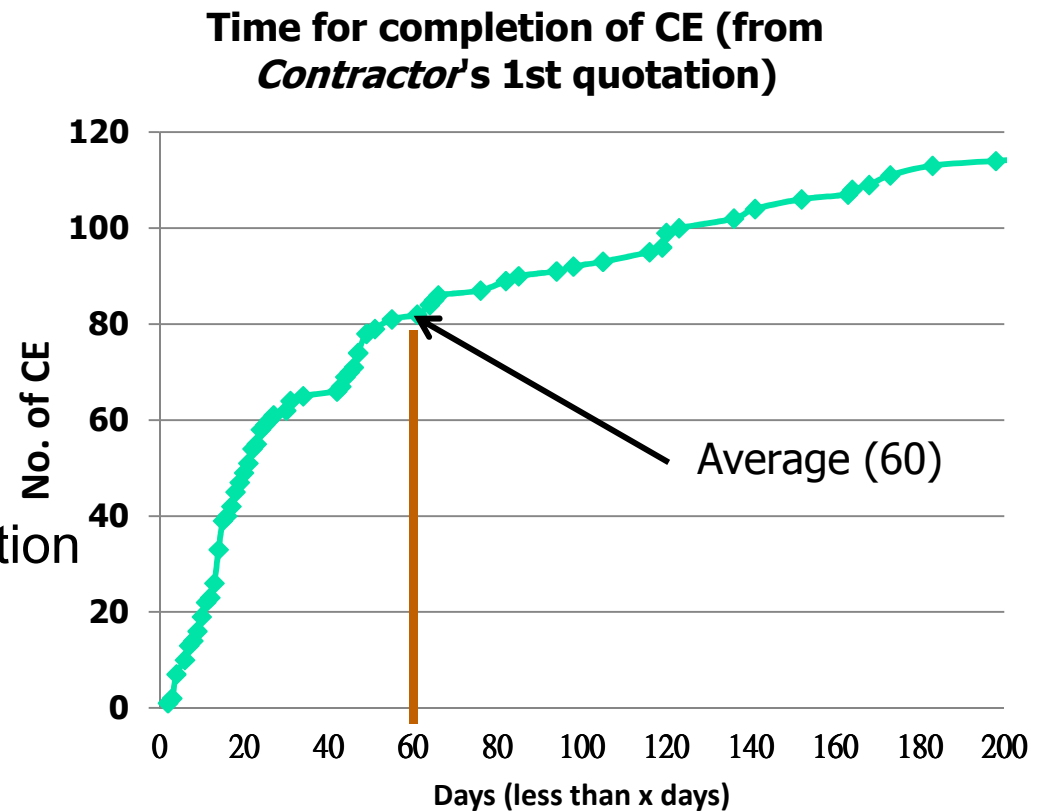
- Unforeseen physical condition – Compensation event
- < 1 week – trial pit
- < 2 weeks – issue design revision
- More equitable risk sharing, less disputes



Experience from Fuk Man Road Project

Better project management

- Compensation Event
- NEC vs GCC
 - Quick settlement
 - Early finalization
([6 months](#) after
May 2012 Completion)
 - 80% CEs agreed at Completion
 - 100% agreed at
end Nov 2012
- Tight time frame
 - early settlement of issues

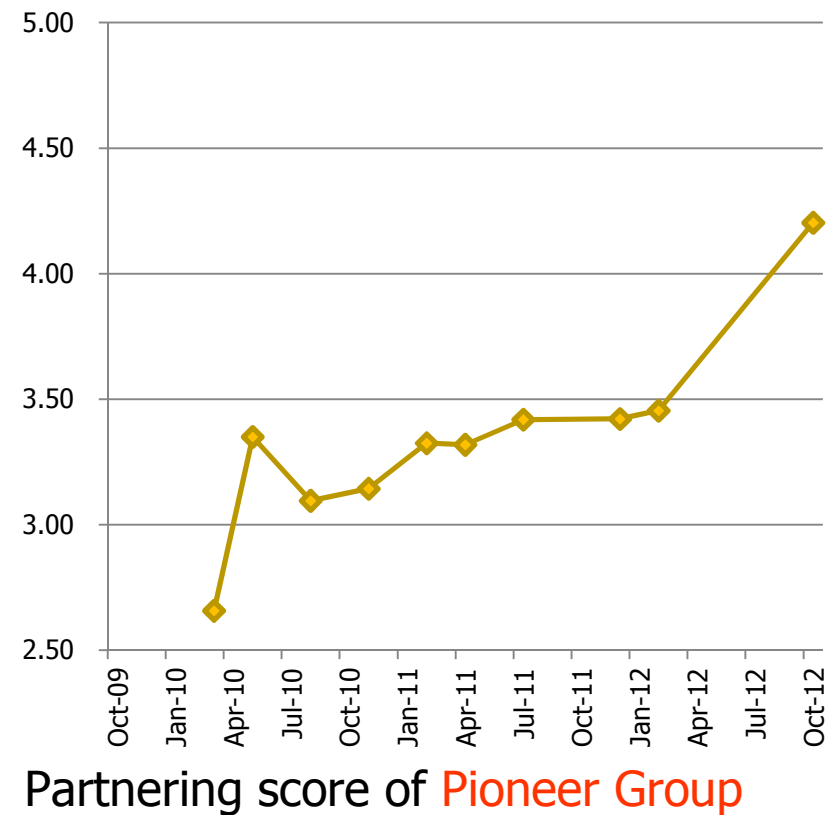
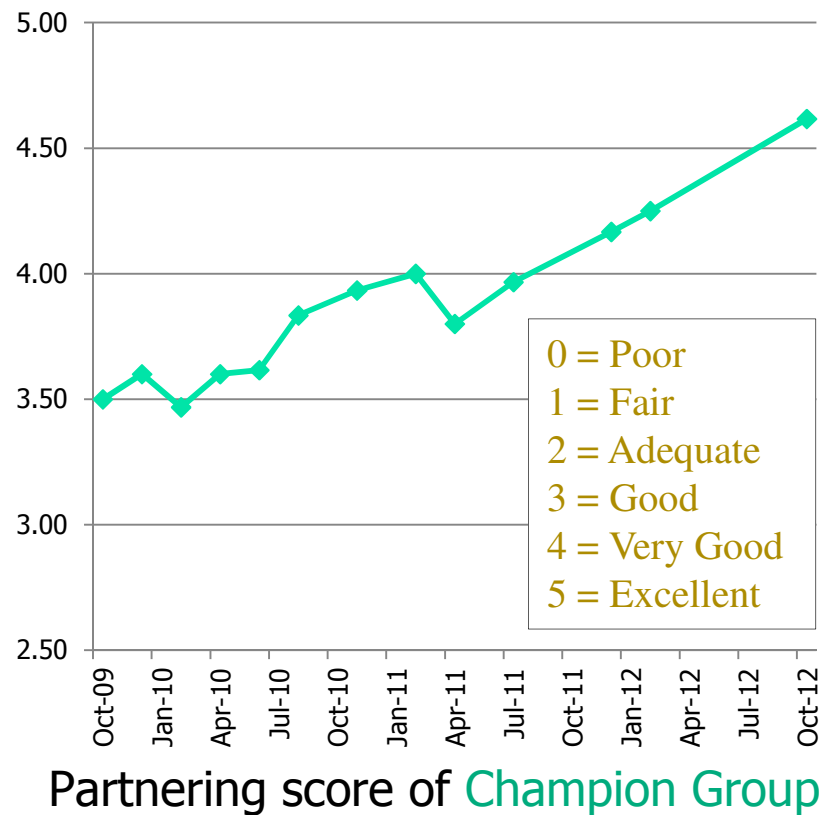


Average 60 days to settle
(from Contractor's 1st quotation)



Experience from Fuk Man Road Project

Team Spirit





Experience from Fuk Man Road Project



Dragon Boat Sculpture
– Fuk Man Garden



Public Recognition



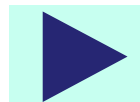
*Maslow's
Hierarchy of Needs*



Completion Ceremony



The Ombudsman's Award 2012





Experience from Fuk Man Road Project

Team Spirit

Soccer game



Joint volunteer team



Joint dragon boat team 2011 and 2012



Observations on Fuk Man Road Project

- Benefits
 - Time – 6 months ahead
 - Cost – 5% gain share
 - Early finalization
 - 6 months after completion
 - Good working relationship
 - Happier staff





Observations on Fuk Man Road Project

- Improvements
 - Collaborative working at frontline
 - Early Training
 - Compensation event
 - Time frame – stringent, require more resources
 - Subcontracting
 - Streamline tendering requirements on subcontracting
 - More flexibility

.....

- A small-scale project only
- Is NEC really suitable???



Happy Valley Underground Stormwater Storage Scheme



Commencement :
3 September 2012
Completion :
2 April 2018 (67 mths)

Tender sum \$678M
(not including
contingency and price
fluctuation)



Option C – Target contract with activity schedule

- Risk sharing
- Incentive for cost savings



Happy Valley – Our Preparation

- Before tendering
 - Contractor's forum
- Tender stage
 - Tender briefing
 - Enhance understanding
 - E.g., Nature of Option C, Fee percentage
 - Ensure correct tender submissions
 - E.g., Proper pricing documents (Activity Schedule)
- Standard Marking Scheme for evaluation





Happy Valley – Our Start

- Partnering
 - Start-up workshop
 - Time – commissioning before 2018 wet season
 - Cost – save 6% of original target
 - Joint NEC training





Happy Valley – Our Start

- Site Office
 - Joint office set up

- Project Logo





Happy Valley – Our Start

- Stakeholders engagement workshop
 - **DSD and Contractor**
 - Engage project stakeholders : Jockey Club, LCSD, Football Club, Schools
 - Develop mitigation measures and communication plan



Rules of Working on Horse Racing Days



各位工友，請注意：

每逢跑馬地舉行日馬或夜馬之當日 –

- 請將遊樂場內的物料繫牢，以免在大風下產生聲音或移動。
- 請注意建築物料、機械及臨時圍板的高度，不能妨礙觀眾席(看台)視野。
- 每逢舉行夜馬之當日，工程車輛於下午 2 時後，應避免使用跑馬地遊樂場通道。
- 每逢舉行夜馬之當日，請工友於下午 5 時前，將工作暫時完成並將工具收拾妥當，離開跑馬地工地。
- 每逢舉行日馬之當日，不能進行任何工作

多謝合作!



Happy Valley – Our Start

- Contractor's Proposed Alternative Foundation Design
 - Option C encourages innovation and drives cost effectiveness
 - Liaison meetings with designers, maintenance parties
 - Briefing to senior management
 - Agreed to carry out detailed design on the alternative proposal
 - Potential cost and time savings, and risks reduction

DSD's NEC Projects



Contract No.	Contract Title	Contract Sum	Nature	Start / Completion	Option
DC/2008/02	Improvement of Fuk Man Road nullah in Sai Kung (Completed) Consultant-managed / DP	\$76M	Flood prevention	Aug 2009 / May 2012	C
DC/2012/09	Pak Hok Lam trunk sewer and Sha Tau Kok village sewerage Consultant-managed / CM	\$187M	Village sewerage	June 2012 / Aug 2016	Frame-work B
DC/2012/05	Yuen Long and Kam Tin Sewerage Consultant-managed / SP	\$145M	Village sewerage	Sept 2012 / Sept 2016	D
DC/2012/03	Happy Valley underground stormwater storage scheme In-house / DP	\$678M	Flood prevention	Sept 2012 / Apr 2018	C
DC/2012/07	Lam Tsuen village sewerage** Consultant-managed / PM	\$173M	Village sewerage	Oct 2012 / Jun 2016	B
DC/2012/01	Building and Civil Maintenance to DSD plant and facilities In-house / HK&I	\$160M	Maintenance	Dec 2012 / Nov 2016	TSC A



Conclusions

Joint effective problem solving

Less disputes

Team Spirit

Better project management

- All founded on
Collaboration and Communication
- Has been successful on Fuk Man Road
- More NEC projects of different nature



Thank you!