

# Hilti NK Nails

## Submission Folder

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**Customer Hotline**

Hong Kong

8228 8118

Macau (Toll free) 00800- 8228 8118

**Website**

[www.hilti.com.hk](http://www.hilti.com.hk)

**SAMPLE SUBMISSION AND APPROVAL FORM**

Contract Title: _____	Ref. No.: _____
	Date: _____
	Ref. No. of Previous Submission: _____
Contract No: _____	(1) _____
File Reference: _____	(2) _____

**DETAILS OF SUBMISSION**

To: Contract Manager's Representative                      Attention: \_\_\_\_\_  
From: \_\_\_\_\_

The enclosed sample and catalogue\* I certificate of origin\* I technical data\* I test report\* 1 job reference\* as described below have been checked for compliance with the Specifications and Drawings, and are submitted for approval.

1.            **General Information**
  - a. Material Description                      NK Nail
  
  - b. Location: \_\_\_\_\_  
\_\_\_\_\_
  - c. Specification Ref. Page: \_\_\_\_\_                      Item: \_\_\_\_\_  
\_\_\_\_\_
  - d. Drawing Ref. No. \_\_\_\_\_  
\_\_\_\_\_
  - e. B.Q. Ref.No.: \_\_\_\_\_  
\_\_\_\_\_
  - f. Anticipated date of approval: \_\_\_\_\_  
\_\_\_\_\_

2.            **Technical Information**  
The submitted sample has been checked against the specification and drawings as listed below:-

<b>Specification Requirements</b>	<b>Submitted Sample</b> (State details against each item)
a. <b>Brand</b> Not specified	Hilti
b. <b>Country of Origin</b> Not specified	Liechtenstein
c. <b>Manufacturer's Name &amp; Address</b> Not specified	Hilti Corporation , FL-9494, Principality of Liechtenstein
d. <b>Factory's Name &amp; Address(es)</b> Not specified	Hilti Plant AG, Plant 1, Feldkircherstr, 100, Postfach 333, FL-9494 Schaan, Principality of Liechtenstein
e. <b>Supplier (with Applicator, if any)</b> Not specified	Hilti (Hong Kong) Ltd

<b>f.</b>	<b>Appearance</b> Not specified	According to the sample submitted
<b>g.</b>	<b>Color +</b> Not specified	NIL
<b>h.</b>	<b>Specification</b> Not specified	Attached
<b>i.</b>	<b>Manufacturer's Catalogue</b> Not specified	Attached
<b>j.</b>	<b>Test Report (Original/Certificated True Copy)</b> Not specified	Attached
<b>k.</b>	<b>Previous Job Reference</b> Not specified	Attached
<b>l.</b>	<b>Supplementary Information</b> Not specified	NIL

For and on behalf of the Contractor

\_\_\_\_\_  
(Quality Control Manager)

<b>CONTRACT MANAGER'S COMMENTS</b>	
To:	
From:	Contract Manager's Representative: _____
On the basis of the sample and information given, the above sample submitted is:	
(1) *	<b>Approved.</b>
(2) *	<b>Not approved</b> because _____
Remarks:	
_____	
_____	
Approval does not alter the requirements of the Contract	
Contract Manager's Representative: _____	
_____	
Date: _____	

CC. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(\* Delete if appropriate)  
(+ For glass or vitreous mosaic tiles, the contractor is required to confirm the colour range(s) of the submitted sample, i.e. a) light and or medium; or b) dark)

## NK nails for fastening to concrete and steel



Shank length (mm)	Shank diameter (mm)	Head height (mm)	Package content	Ordering designation	DX 450	Item no.
22	3.7	3	100	<b>NK 22 S12</b>	•	00041057 ★
27	3.7	3	100	<b>NK 27 S12</b>	•	00041058
32	3.7	3	100	<b>NK 32 S12</b>	•	00041059
37	3.7	3	100	<b>NK 37 S12</b>	•	00041060
42	3.7	3	100	<b>NK 42 S12</b>	•	00041061 ★
47	3.7	3	100	<b>NK 47 S12</b>	•	00041062 ★
54	3.7	3	100	<b>NK 54 S12</b>	•	00041070 ★

## NKS nails for fastening to concrete



Shank length (mm)	Shank diameter (mm)	Head height (mm)	Package content	Ordering designation	DX 450	Item no.
27	3.7	3	100	<b>NKS 27 S12</b>	•	00040248

## X-CC NK ceiling clip



Shank length (mm)	Shank diameter (mm)	Head height (mm)	Package content	Ordering designation	DX 450	Item no.
32	3.7	3	100	<b>X-CC NK 32</b>	•	00299933

## ENK nails for structural steel application



Shank length (mm)	Shank diameter (mm)	Head height (mm)	Package content	Ordering designation	DX 450	Item no.
16	3.7	3	100	<b>ENK 16 S12</b>	•	00041503
19	3.7	3	100	<b>ENK 19 S12</b>	•	00041505
22	3.7	3	100	<b>ENK 22 S12</b>	•	00041507

# Powder-actuated tool DX 450



### Applications

- Wood and metal to concrete or steel
- Electrical installations (switchboxes)
- Clips, clamps and rings for electric cables, conducts and pipes
- Mouldings, brackets, sections etc.

<b>HILTI</b> LIFETIME SERVICE	2 Years NO COSTS	<b>HILTI</b> <b>FLEET MANAGEMENT</b>
Lifetime REPAIR COST LIMIT	Lifetime MANUFACTURERS WARRANTY	

### Technical data

DX 450	
Power load	6.8 / 11 M cartridge in magazine of 10, 4 power levels (green, yellow, red, black)
Tool length	350 mm
Tool weight	3.2 kg



### Ordering

Order designation	Package content	Item No.
DX 450 complete	Fitted with 1 baseplate 45/S1, 1 fastener guide 45/F1, 1 piston 45/NK, supplied in a tough plastic tool box with safety and cleaning equipment in the standard kit.	00000712



Power regulation



Silencer

### Strong points:

This powder-actuated tool has a report silencer, power regulation and automatic cartridge feed. It is suitable for a wide range of fastenings to steel, concrete and hard masonry.

### Absolute safety:

With this piston tool, fasteners cannot ricochet or be shot through walls. In addition, contact, drop firing and loading safety devices ensure absolute safety for the operator.

## Special cartridges 6.8/11 M



Power level	Package content	Order designation	Color code	Item no.
Light	100	6.8/11 M	green	00050351
Medium	100	6.8/11 M	yellow	00050352
Heavy	100	6.8/11 M	red	00050353
Extra heavy	100	6.8/11 M	black	00050354 ★

## Accessories

Order designation	DX 450	Item No.
45 / S 1 baseplate	■	00000731 ★
45 / F 1 fastener guide	■	00000729 ★
Stop ring	■	00000855 ★
Piston guide	■	00000728 ★
Piston 45/NK packed	■	00409299
DX spray	■	00308976
Splinter Guard	■	00000734 ★

★ Non-Stock Item in HK & Macau

### 10.2.28 NK General Purpose Nails for Concrete, Sandlime-Masonry and Steel

Carbon steel shank: HRC54±1  
Coating: 5 - 13 µm zinc

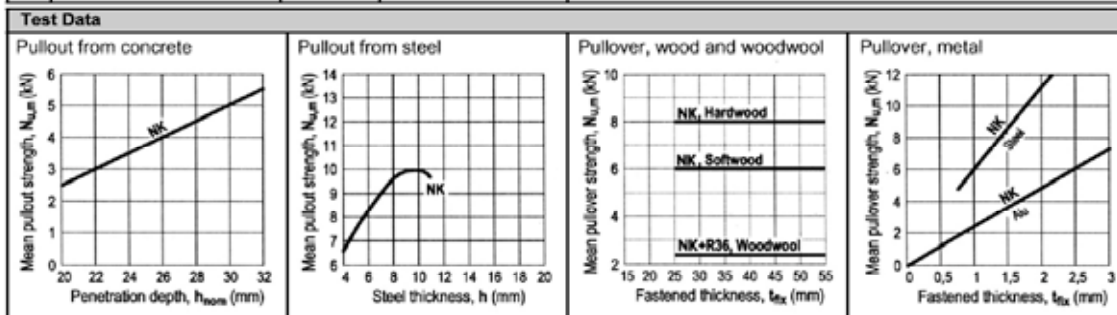
Sill plates, battens to concrete

Drywall track, battens to steel

Drywall track to concrete

Forming, barriers, temporaries

Fastener Programme				Selection of Nail for Wood/soft Material Application	
①	Designation	L <sub>s</sub> (mm)	DX Tools	<p>Nailheads countersunk 3 mm</p> <p>Example: Fasten 75 mm thick wood with NK97 Q: What is the penetration depth? A: 27mm</p>	
	NK 22 S12	22	DX 450		
	NK 27 S12	27			
	NK 32 S12	32			
	NK 37 S12	37			
	NK 42 S12	42			
	NK 47 S12	47			
	NK 54 S12	54			
	NK 62 S12	62			
	NK 72 S12	72			
②	NK 82 D12	82			
	NK 97 D12	97			
③	NK 117 D12	117			

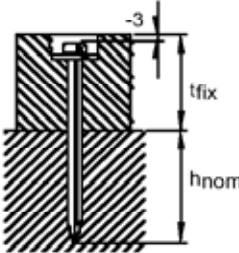
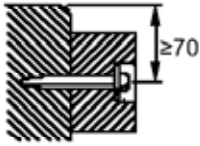
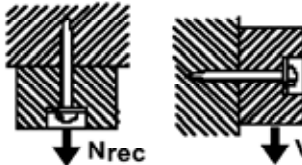
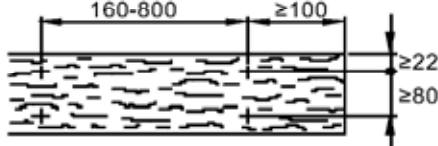
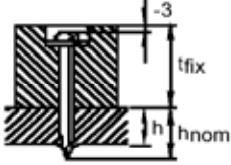
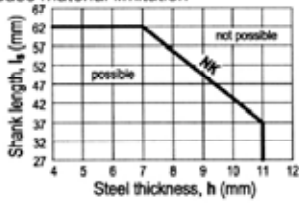
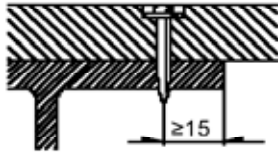
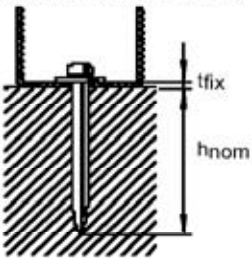
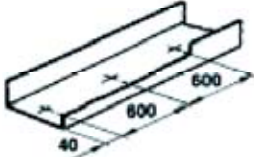

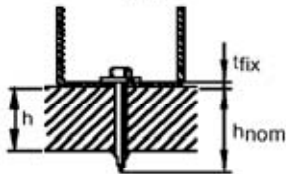
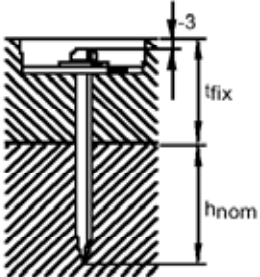
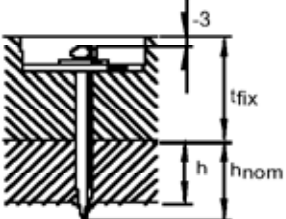


**Application Approvals and Governing Design Guidelines**

Lloyd's, ABS

Technical data (design loads, application restrictions, etc.) presented in these approvals and design guidelines reflect specific local conditions and may differ from those published in this handbook. If the project is in a jurisdiction where the fastening is subject to the approval process or where a design guideline must be used, technical data in the approval or design guideline has precedence over data presented here. Approval copies are available from your Hilti technical advisory service.

### 10.2.28 NK General Purpose Nails for Concrete, Sandlime-Masonry and Steel

Wood to Concrete and Steel														
<p><b>Concrete, sandlime masonry</b></p>  <p>Lightweight concrete <math>h_{nom} = 32 - 37 \text{ mm}</math></p> <p>Concrete &amp; Sandlime-Masonry <math>h_{nom}</math> according to <math>f_{ce}</math>:</p> <table border="1"> <tr> <td><math>f_{ce}</math> (MPa)</td> <td>15</td> <td>25</td> <td>35</td> </tr> <tr> <td><math>h_{nom}</math> - NWC</td> <td>32</td> <td>27</td> <td>22</td> </tr> <tr> <td><math>h_{nom}</math> - sandl.</td> <td>32</td> <td>27</td> <td>27</td> </tr> </table> <p><math>L = h_{nom} + t_{fix} - 3</math></p> <p>Edge distance: concrete</p> 	$f_{ce}$ (MPa)	15	25	35	$h_{nom}$ - NWC	32	27	22	$h_{nom}$ - sandl.	32	27	27	<p>Recommended working loads (predominantly static)</p>  <p>Concrete, Sandlime-Masonry: <b>400 N</b> Steel: <b>600 N</b></p> <p>Design conditions:</p> <ol style="list-style-type: none"> <li>1a. Minimum 5 fastenings per fastened unit (normal weight concrete)</li> <li>1b. Increase to 600N possible if 8 or more fastenings in each fastened unit.</li> <li>1c. All visible failures must be replaced.</li> <li>2. Single point design possible with steel, sandlime-masonry or lightweight concrete base material.</li> <li>3. Valid for concrete, sandlime <math>f_{ce} &lt; 40 \text{ mPa}</math></li> <li>4. Fastened material: <ul style="list-style-type: none"> <li>• wood, minimum thickness = 24 mm</li> <li>• plwood, minimum thickness = 16 mm</li> </ul> </li> </ol> <p>Spacing on wood:</p> 	<p><b>Steel</b></p>  <p><math>h_{nom} = 15 - 27 \text{ mm}</math></p> <p>Base material limitation</p> <p>Base material limitation</p>  <p>Edge distance: steel</p> 
$f_{ce}$ (MPa)	15	25	35											
$h_{nom}$ - NWC	32	27	22											
$h_{nom}$ - sandl.	32	27	27											
<p><b>Drywall Track to Concrete, Sandlime-Masonry and Steel</b></p>														
<p><b>Concrete, Sandlime-Masonry</b></p>  <p>Select <math>h_{nom}</math> according to <math>f_c</math>:</p> <table border="1"> <tr> <td><math>f_c</math> (Nmm<sup>2</sup>)</td> <td>15</td> <td>25</td> <td>35</td> </tr> <tr> <td><math>h_{nom}</math> - Conc.</td> <td>32</td> <td>27</td> <td>22</td> </tr> <tr> <td><math>h_{nom}</math> - Sandlime</td> <td>32</td> <td>27</td> <td>27</td> </tr> </table>	$f_c$ (Nmm <sup>2</sup> )	15	25	35	$h_{nom}$ - Conc.	32	27	22	$h_{nom}$ - Sandlime	32	27	27	<p>Spacing along track (per U.S. Gypsum Handbook)</p>  <p>At track ends (cut-outs for doors), secure with 2 nails</p> 	<p><b>Steel</b></p>  <p>Use <b>NK 22</b>, or <b>NK 27</b> (if placeable)</p> <p>Alternate nails: <b>ENK 16</b>, <b>ENK 19</b></p>
$f_c$ (Nmm <sup>2</sup> )	15	25	35											
$h_{nom}$ - Conc.	32	27	22											
$h_{nom}$ - Sandlime	32	27	27											
<p><b>Soft Material to Concrete, Sandlime-Masonry and Steel</b></p>														
<p><b>Concrete, Sandlime-Masonry</b></p> 	<ul style="list-style-type: none"> <li>• Working loads depend on strength and thickness of material fastened. Do not use working loads in excess of those for wood.</li> <li>• Conditions as for fastening wood.</li> <li>• Use <b>R23</b> or <b>R36</b> (<math>\phi 4.5</math> hole) washer to control penetration and to increase pullover strength. Separately available from Hilti</li> </ul>	<p><b>Steel</b></p>  <p><math>h_{nom} = 15 - 27 \text{ mm}</math></p>												

Hilti (Hong Kong) Limited  
17/F, Tower 6,  
China Hong Kong City,  
33 Canton Road,  
Tsimshatsui,  
Kowloon.

4 June, 1997

Attention: Mr. Denny Wu

Dear Sir,

**Procedures for building materials submission**

I refer to your letter dated 19 May, 1997 concerning the above.

2. Please be advised that there is no provision under the Buildings Ordinance for the Building Authority to approve any proprietary building products. Under the Buildings Ordinance, authorized persons and/or registered structural engineers are required to supervise building works including the selection and installation of proprietary building products and to certify compliance with the Buildings Ordinance upon completion of works. They are therefore responsible for ensuring the health and structural safety requirements, inter alia, of these building products in the building projects which they have been appointed by the developer to co-ordinate and supervise. It is also their responsibility to ensure these products have been installed in accordance with the manufacturers' specifications and complied with the Buildings Ordinance and Regulations.
3. In establishing the acceptability of the proprietary products in building works, reference may be made to the performance standards laid down in Building (Construction) Regulations 1990 and the current Practice Note for Authorized Persons and Registered Structural Engineers 140 in which performance requirements for compliance are given. Reliance may also be placed on the test/assessment report prepared by a recognized laboratory or an equivalent establishment.
4. Before the proprietary products are installed in a building project, the authorized person and/or registered structural engineer appointed for the project should be approached by the manufacturers or their agents for advice and guidance. **Prior approval/acceptance from the Buildings Department is not required.**
5. Generally, all relevant information supporting the use of the proprietary products in building works under the Buildings Ordinance should be submitted associated with the prescribed plans for approval on project basis.


/ Notwithstanding....



- 2 -

6. Notwithstanding the above, the proprietary building products to which 'No objection' letters have been given are still recognized as accepted constructional materials to be used in building works under the Buildings Ordinance provided that all conditions specified in the letters are satisfied. You are informed that the procedures currently adopted by the Building Authority for processing statutory approval of plans which involve the use of these proprietary building products remain unchanged.
7. It is a fact that the 'No objection' letter giving general acceptance to a proprietary building product is based on the technical information submitted to this Department at the time of its application. Should there be any significant modification to these technical information, the product will certainly be considered as 'new' product. The acceptability of such proprietary product in building works should be evaluated by the authorized person and/or registered structural engineer appointed for the project as mentioned above.
8. Should you have any further queries to the above, please feel free to contact the undersigned or Mr. T.C. Kan of this office at phone no. 2626 1583.

Yours faithfully,

  
(K.S. Chang)

Technical Secretary/Structural  
for Building Authority .

tck/



Attention: To whom it may concern

Date: 17 May 2010

Ref: 005/DX/AL/10

Subject: Hilti X-CR / NK nails and cartridge

Dear Sir / Madam,

Enclosed please find the information of Hilti X-CR / NK nails and cartridge.

Brand:	Hilti
Model:	X-CR / NK nails and cartridge
Manufacturer:	Hilti Corporation
Address of Manufacturer:	FL-9494, Principality of Liechtenstein
Supplier:	Hilti (Hong Kong) Ltd.
Address of Supplier:	701-704, 7/F, Tower A, Manulife Financial Center, 223 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong
<u>Product</u>	<u>Country of Origin</u>
X-CR / NK Pin	Liechtenstein
Cartridge	USA

Should you have further questions, please do not hesitate to contact our Technical Representatives or Customer Service Hotline at 8228-8118.

Yours sincerely,

Alan Lee  
Product Manager

# Job/Application Reference

28-Mar-11



<u>Ref No</u>	<u>Date</u>	<u>Project</u>	<u>Contractor</u>	<u>Consulting Engineer</u>	<u>Product</u>	<u>Application</u>
40355	09-10	Hong Kong University Re-development	GAMMON CONSTRUCTION LTD		Ceiling clip X-CC NK32D12	temporary electrical wire / lighting fixing
40179	06-10	Hennessy Center Redevelopment	GAMMON CONSTRUCTION LTD		Universal nail NK 27 S12	temporary electrical wire / lighting fixing
40066	05-10	Hennessy Center Redevelopment	GAMMON CONSTRUCTION LTD		Ceiling clip X-CC NK32D12	temporary electrical wire / lighting fixing

# Job/Application Reference

25-Oct-05



<u>Ref No</u>	<u>Date</u>	<u>Project</u>	<u>Contractor</u>	<u>Consulting Engineer</u>	<u>Product</u>	<u>Application</u>	<u>Photo Ref</u>
4285	06-05	Housing Development at Shek Pak Wan Phase 2	Dickson Const Co Ltd / Foon King Machinery Engrg	Housing Department	X-CC NK32D12	Temperate Elect Wire	N/A
4279	06-05	Residential Development at Sai Wan Ho	E-Man Const. / Parkrise Engrg Ltd	Stephen Chang Consulting Engr / JRP	NKS 27S12 /100	Channel fixing for Hardie wall	N/A
4287	02-05	Pok Oi Hospital Redevelopment	Hsin Chong Construction Co Ltd	Mott Connell / PBA	X-CC NK32D12	Temporary Electrical Fixing	N/A
4444	02-05	Expansion of Asia Airfreight Terminal: Terminal 2	China Overseas Building Construction	Maunsell Structural Consultants	X-CC NK32	Temp electric wire fixing	N/A
4286	01-05	Nina Tower	Bonnytown Investments Ltd	Ove Arup & Partners	X-CC NK32D12	Temporary Electrical Fixing	N/A
2905	01-03	Housing Development at West Kowloon Reclamation Phase 1 & 2	China State/Honourable	Housing Department	HKD-E + Countersunk Head Bolt	Fixing the wooden door frame	N/A
3626	12-02	Residential Development at To Kwa Wan - Sky Tower	Shung Shing/Tung Fai Kee	WSP	HKD-E + Countersunk Head Bolt	Fixing the wooden door frame	N/A
3130	12-02	Leighton Hill at Causeway Bay	Tung Fai Kee	Sun Hung Kai Engineering	HKD-E + Countersunk Head Bolt	Fixing the wooden door frame	N/A
3086	10-02	International Finance Centre - Shopping Centre and Basement	E-Man Sanfield Joint Venture / Sunny Way Eng Ltd	Ove Arup & Partners	X-CC NK 32	Temporary lighting fixing	N/A
2996	09-02	Housing Re-development at Pak Tin Estate Phase 3, 6	Shui On/Wealform	Housing Department	HKD-E + Countersunk Head Bolt	Fixing the wooden door frame	N/A
2895	07-02	Housing Development at Tung Chung Area 31 Phase 5	Dickson/Wealform	Housing Department	HKD-E + Countersunk Head Bolt	Fixing the wooden door frame	N/A

17/F, Tower 6, China Hong Kong City, 33 Canton Road, Tsimshatsui, Kowloon, Hong Kong.  
 Hotline : 8228 8118 Fax : 29541751

1

# Job/Application Reference

25-Oct-05



<u>Ref No</u>	<u>Date</u>	<u>Project</u>	<u>Contractor</u>	<u>Consulting Engineer</u>	<u>Product</u>	<u>Application</u>	<u>Photo Ref</u>
3461	06-02	Residential Development at Ma Wan Island Lot 392	Tung Fai Kee	Siu Yin Wai & Associate	HKD-E + Countersunk Head Bolt	Fixing the wooden door frame	N/A
2854	06-02	Housing Development at Tin Shui Wai Area 102 Phase 2	Wealform	Housing Department	HKD-E + Countersunk Head Bolt	Fixing the wooden door frame	N/A
3948	06-02	West Rails - Tin Shui Wai Station (CC203)	Chun Wo Fujita Henryvicy JV / Profine Ltd	Ove Arup & Partners	NK	Fixing the mesh on steel work for the firestop spray	N/A
3036	05-02	Housing Redevelopment Tsz on Estate Phase 3	Wealform	Housing Department	HKD-E + Countersunk Head Bolt	Fixing the wooden door frame	N/A
2649	05-02	Commercial Redevelopment at Mong Kok (K2)	Sun Fook Kong	Ove Arup & Partners / Wong & Ouyang (HK) Ltd	X-CC DNI 32 P8	Temporary lighting fixing	N/A
2897	05-02	Housing Development at Tung Chung Area Phase 2 & 3	Yau Lee Const / Ytong HK Ltd	Hsin Yieh Arch & Engr	NK27 S12	For fixing the lugs to support the Ytong panel	N/A
2877	03-02	Housing Development at Tseung Kwan O Area 59 phase 9	Wealform	Housing Department	HKD-E + Countersunk Head Bolt	Fixing the wooden door frame	N/A
3856	03-02	West Rails - Kam Tin Depot (CC604)	Costain China Harbour JV / Ho Leung Eng	PBA	X-CC NK 32	Fixing the cable tray	N/A
3091	01-02	International Finance Centre - Shopping Centre and Basement	Gamfield Const / Seele HK	Ove Arup & Partners / JRP	ENK 19 S12	Fixing the metal sheet to steel works	N/A
3777	09-00	Tseung Kwan O Lot 55 (Ocean Shores)	Gamfield Const	Joseph Chow & Partners	NK 27 S12	Chicken Mesh fixing	N/A
2846	11-99	Housing Development at Shek Yam Phase 3	Shui On Contracting Co Ltd	Housing Department	NK 27 S12	Chicken Mesh Fixing	N/A
2801	11-99	Housing Development at Ho Man Tin Phase 4	Shui On Contracting	Housing Department	NK 27 S12	Chicken Mesh Fixing	N/A

17/F, Tower 6, China Hong Kong City, 33 Canton Road, Tsimshatsui, Kowloon, Hong Kong.  
 Hotline : 8228 8118 Fax : 29541751