

## **The Demolition of Lower Ngau Tau Kok Estate**

**Super :**

Lower Ngau Tau Kok (LNTK) Estate was built in the 1960's  
Its demolition begins in 2010

**Super :**

2011  
School Year Opening Ceremony  
SKH Kei Hin Primary School

**VO (school  
announcement):**

The opening ceremony is over  
please return quietly to your classroom with your class teacher

**Girl A:**

Are you new?

**Girl B:**

Uh

**Teacher:**

Chan King Fei  
take the third seat on this row

**Girl B:**

Sir, Chan Ka Ka is sitting on my chair!

**Super:**

Spring 2008  
St Matthew's Lutheran School  
LNTK Estate

**Subtitle  
(explanation of  
the scene):**

(Girl B writing her name)

**Subtitle  
(explanation of  
the scene):**

(Goodbye to LNTK Estate )

**Teacher:**

Does anyone know which primary school is it?

**Girl B:**

St Matthew's

**Teacher:**

Right!  
This was one of the schools in LNTK Estate  
It's been relocated due to the estate's demolition  
Some of the electric fans, tables and chairs we're using  
were collected there by the Housing Department  
and donated to us for reuse

**VO:**

Over 40 years old  
Lower Ngau Tau Kok Estate is the last estate demolished  
under the Housing Authority's Comprehensive Redevelopment Programme  
To preserve the local heritage  
we have collected over 300 abandoned  
but historically valuable items from the estate before its demolition  
Some of them will be displayed in the redeveloped LNTK Estate  
The rest will go to NGOs for promotion of local culture  
We have also collected over 500 reusable items  
from the three relocated schools  
for donation to schools and an NGO

**Super (Title):**

Lui Wing Yee  
Headmistress  
SKH Kei Hin Primary School

**Lui Wing Yee:**

When the Housing Department invited us for an on-site inspection at the  
schools  
we found a lot of useful items  
Then they emailed us a list  
We made our selection and faxed it back  
When the items were delivered to us  
our fellow workers, students and teachers  
were all very happy  
We found the stuff very useful  
We received some tables, chairs, lights and electric fans  
There were also sports equipment such as  
vaulting horse  
ping pong table and wooden staircase

**Student A (on stage):**

L-I-A-R

**Lui Wing Yee:**

The hand dryers are special to us  
as our school has never had one  
When they were installed in the washrooms  
the students were all very excited  
All these items are very durable  
We try to convey to our students the importance of recycling  
and reusing resources for protection of our environment  
We hope to pass on the message  
to both students and their parents

**Lyrics:**

If the look of this community can last  
Flourish like the blossoms it will be

**Girl B:**

Do you know what demolition is like?

**Girl A:**

Let's go and find out!

**Girl B:**

Uh

**VO (Martin Tsoi):**

Seven blocks are now being demolished  
Five of them, blocks 8 to 12, were built with precast panels  
Since this is the first time we demolish precast buildings  
we've done a lot of research  
We conducted on-site inspections  
to find out the connection joints of the precast panel  
We also made a structural model  
to better understand the building structure  
before we devised suitable demolition procedures and methods

**Super (Title):**

Martin Tsoi  
Chief Structural Engineer  
Housing Department

**Super:**

Building Information Modelling (BIM)

**Martin Tsoi:**

We've used the BIM System  
to refine the whole demolition process  
and produce a short video  
showing the demolition sequences and safety measures  
The video helps familiarise the workers  
with the whole demolition process beforehand  
thus helping to improve their efficiency and safety awareness  
Most of the buildings we tore down in the past  
were cast in-situ concrete blocks  
that is, the concrete was mixed and poured on site  
But 5 of the domestic blocks in LNTK Estate  
were built with precast panels  
thus requiring a brand new demolition method  
Demolition works are often highly difficult and risky  
We resort to a cut-and-lift approach this time

**Super:**

The Cut-and-lift approach

**Martin Tsoi:**

Adopting a reverse method  
we have to find out the precast joints first  
Entire pieces of precast panels are then lifted away  
one by one in a prescribed sequence  
devised from precise calculation and consideration

**Super:**

Temporary props and braces

**Martin Tsoi:**

We have to install temporary props  
and braces before the demolition  
Then we remove the floor slabs  
balcony grille panels  
and walls  
floor after floor  
Any errors may make the building collapse  
like a loose stack of blocks

**Super:**

Asbestos abatement

**Martin Tsoi:**

As the lobby grilles and some balcony grille panels  
contain asbestos  
we've employed an independent registered asbestos consultant  
to inspect and assess the location  
amount of asbestos and the removal method  
A containment method is adopted for the asbestos abatement  
As the consultant is independent  
he helps us to supervise the contractor  
during the whole asbestos abatement process  
Caring for the community  
is always among the Housing Authority's goals  
We are here to serve the residents  
as well as the whole community  
We aim to minimise nuisance to the environment  
and the neighbourhood throughout the demolition  
Our project team also wants to contribute to the community

**VO:**

LNTK Estate located between two busy entrances of Kowloon Bay MTR  
Station  
is surrounded by many densely populated housing estates  
During the demolition  
we take special precautions  
to minimise inconvenience to the pedestrians  
and nuisance to the local community  
In view of the high traffic flow  
we have broadened the pedestrian access at the MTR Station  
from the minimum statutory requirement of 2 m to 3 m

**Super:**

Broadening pedestrian access

**VO:**

Also, the cantilevered design  
of the hoarding covers around part of the site  
helps to broaden the pedestrian walk

**Girl B:**

Innovating working methods  
Demolishing in whole  
Reducing noise and dust  
Putting safety first

**VO:**

Some modular hoardings were installed with bolts and nuts  
along the pedestrian access  
This renders the hoardings reusable

**Super:**

Minimising nuisance

**VO:**

while also avoiding nuisance to the pedestrian  
caused by traditional on-site welding  
Plants grown along the hoarding create a greener environment  
and help reduce noise from the demolition site

**Super:**

Sound Level Meter

**Super:**

Minimising noise and dust

**VO:**

The cut-and-lift method for demolition of precast buildings  
helps reduce noise and dust significantly  
Dust suppressors using atomizers are also installed on site for dust reduction

**Super:**

Ensuring air quality

**VO:**

To ensure no adverse impact on the air quality in the neighbourhood during  
asbestos abatement  
we have increased air monitoring points  
from the routine requirement of 8 to 12  
and extended the monitoring area to various nearby estates

**Super:**

Air Sampler

**VO:**

The asbestos content in the air is checked  
every working day to ensure safety standards are met

**Super:**

Reducing traffic load

**VO:**

38-ton dumping trucks instead of the usual 24-ton trucks  
are used for transporting construction waste  
It reduces the frequency of road trips  
and minimises impact to the traffic  
We have made different attempts to recycle  
and reuse the vast amount of demolition waste

**Super:**

Recycling construction waste

**VO:**

Some precast panels will be used for paving in other construction sites  
and some are crushed on site by concrete crushers  
as back-filling materials for sites and road base of new roads

**Subtitle  
(explanation of  
the scene):**

(Drawing exercise: Public Housing Development in Hong Kong)

**Subtitle  
(explanation of  
the scene):**

(Themes on the display board)  
(Recycling for the environment)  
(Demolishing in whole)  
(Caring for the community)

**Lyric:**

Lo, radiant are the dancing flowers  
Lo, happy are the birds on the cotton tree  
If the look of this community can last  
Flourish like the blossoms it will be

**Super:**

Time has changed, things have changed  
but our care for the living environment has never changed

**End Super:**

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