

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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