

# Broken Windows Theory

## Is tidy safer?

Mark Hayman & Colin Williams

14 March 2012

### Safety Corner

#### Broken windows and safety management

The "broken windows theory" is a controversial concept in criminology. The theory proposes that better monitoring and maintaining order in urban environments can reduce petty crimes and prevent more serious crimes based on the observation that vandals are likely to break more windows in a neighbourhood and commit more serious crimes if broken windows are not repaired promptly. The theory also encourages authorities to get tough on misdemeanours such as graffiti, and even on traffic infractions and petty crimes such as public intoxication.

The application of the theory has been extended to safety management by comparing prevention of violent crimes in a neighbourhood with prevention of serious accidents in the workplace. Supporters of the theory argue that, if management enforces better housekeeping and minor safety rules such as the wearing of safety shoes and helmet when required, it is less likely that a major accident would occur. They assert that sloppy safety standards breed injuries and it is hard to find a workplace with a bad housekeeping record but a good safety record. The 5S approach, whose objective is similar to that of "broken windows theory", has been shown to boost morale, encourage a sense of pride, and promote ownership of responsibilities; and, by doing so, enhance the safety culture.

Critics of the theory argue that there is no conclusive statistical evidence showing broken windows policing reduces serious crime in a neighbourhood. They contend that it is misleading to assume preventing lower-level incidents will automatically prevent higher-level incidents, and management may lose sight of more serious accidents when too much attention is placed on minor offences. One supporting example is the senior management tour that took place the day before the Deepwater Horizon accident. The senior management team focused on minor occupational safety matters instead of major accident contributors that could have prevented the catastrophe.

*The Safety Corner is contributed by Ir Dr Vincent Ho, who can be contacted at [vsho.hkarms@gmail.com](mailto:vsho.hkarms@gmail.com)*

## Objectives

- Part 1:
  - BWT, Zero Tolerance, CompStat
  - Controversy, Other factors: balanced view
  - Proactive 'Build In' Security – Holistic, multidisciplinary approach – CPTED
  - Safe Cities
  - Focus on crime and sense of security
  
- Part 2:
  - Site Safety – Is tidy safer?
  - Focus on safety

## Broken Windows Theory

*if the first broken window in a building is not repaired, then people who like breaking windows will assume that no one cares about the building and more windows will be broken. Soon the building will have no windows....*

*James Wilson, George Kelling (1982) The Atlantic Monthly*



## BWT

- Stricter law enforcement is primary ingredient to safer communities, enforce lowest level of offences
- Maintaining well-ordered conditions may stop further vandalism or escalation into more serious crime.
- Arresting / summonses for minor violations and quality of life behaviours > deterrence.
- Aggressive enforcement of all statutes has been shown to restore a sense of order.
- Common Sense?

## 1994 NY: BWT in action

- BWT & Zero Tolerance
- Giuliani / Bratton NYPD
- Champion
- Crime as political issue
- Well - resourced
- Results
  - Crime fell by 60%
  - (*including serious crime*)
  - Believers

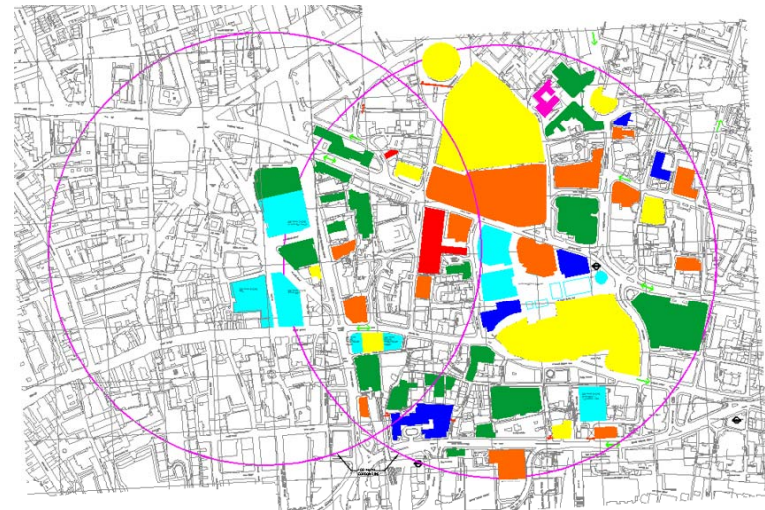
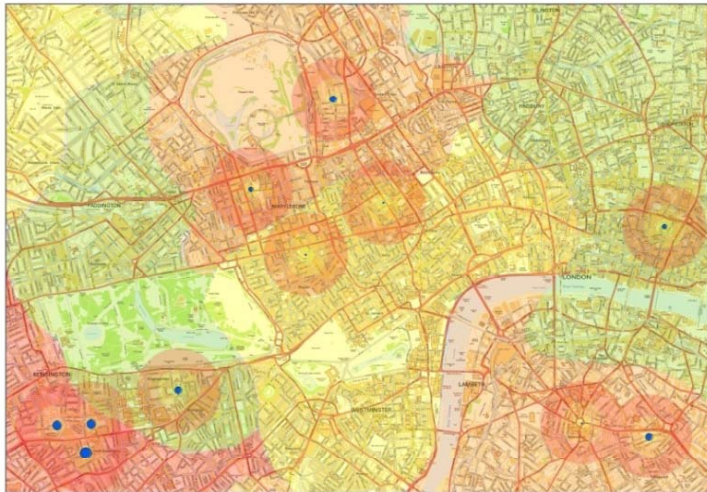




- Robotic, automatic, no discretion, fixed punishment
- Carte Blanche to Police
- Repression of the poor, homeless
- Reduces crimes to only "street crimes", those committed by lower social classes, excluding white collar crimes
- Redefines social problems in terms of security, poor as criminals
- Scholars ... can't prove it

## BWT & Zero Tolerance supported by Compstat

- 'Computerized Statistics'
- Crime Maps, Geographic Information Systems
- Analysis, identify problems
- Senior level meetings: enforced & championed
- Credited with bringing down crime





- The Wire: ‘Juking the stats”.
  - Politicians pressure police brass, who then pressure middle management, to generate PR friendly statistics about lowering crime and increasing arrests.
- COMPSTAT may discourage officers from taking crime reports in order to create a false appearance of a reduction of community problems.
- “What is measured gets done”

## Resources

- Deployment of around 5,000 new better-educated police officers
- Integration of New York's housing and transit police into the New York Police Department
- Police decision-making being devolved to precinct level
- The clearing of a backlog of 50,000 unserved warrants
- CompStat - resources

## Economic

- Programs that moved over 500,000 people into jobs from welfare at a time of economic buoyancy.
- Offering housing vouchers to enable poor families to move to better neighbourhoods.
- End of the crack epidemic -shift to a marijuana-based drug economy with a larger consumer base and less competition.

## Demographics

- Donohue – Levitt Hypothesis (*Freakonomics*)
  - Legalization of abortion – Roe vs. Wade - decrease in the number of unwanted children i.e those more likely to commit crime
- Advances in medicine play a role in the declining number of homicides.
- Number of males aged 16–24 dropping due to the shape of the US population pyramid

## National Drop in Crime

- SF:
  - Less stringent, *more* tolerance, *less* arrests, different policies (at the same time)
  - Shopping trolley – different approach
  - Derided in NY BUT: *Similar* crime reduction
  
- LA:
  - Notorious for bad policing, but crime fell at about the same rate as it did in NY once the growth in New York's police force is accounted for.

## So what?

- Re-evaluate BWT, Zero Tolerance?
- BWT , Zero Tolerance, Compstat part of a wider solution.
- Demographics and multi agency approach and provision of huge resources likely to be beyond 'normal' control.
- What can we do?
  - Current thinking – CPTED combines aspects of BWT (which are *part* of the solution) etc into a wider, proactive approach.



Hawker Activity: Over Tolerance - Not enforced – no result!



On going burden – fixed but not enforced -  
broken again – cost – give up, no solution,  
legitimate users discouraged



## Crime Prevention Through Environmental Design (CPTED)

**“The proper design and effective use of the built environment that can lead to a reduction in the fear and incidence of crime and an improvement in the quality of life.**

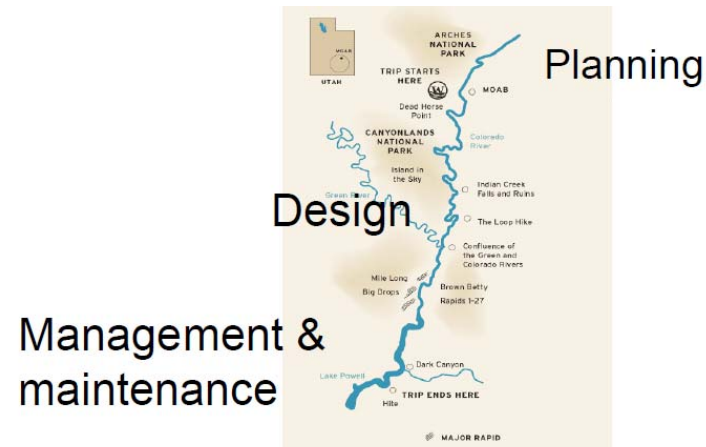
**The goal of CPTED is to reduce opportunities for crime that may be inherent in the design of structures or in the design of neighborhoods.”**

**Crowe 2001**

⌂

## CPTED

- Built environment : A process that is applicable on a range of scales.
- Avoid crimes before construction, but flexible approach to management & maintenance.



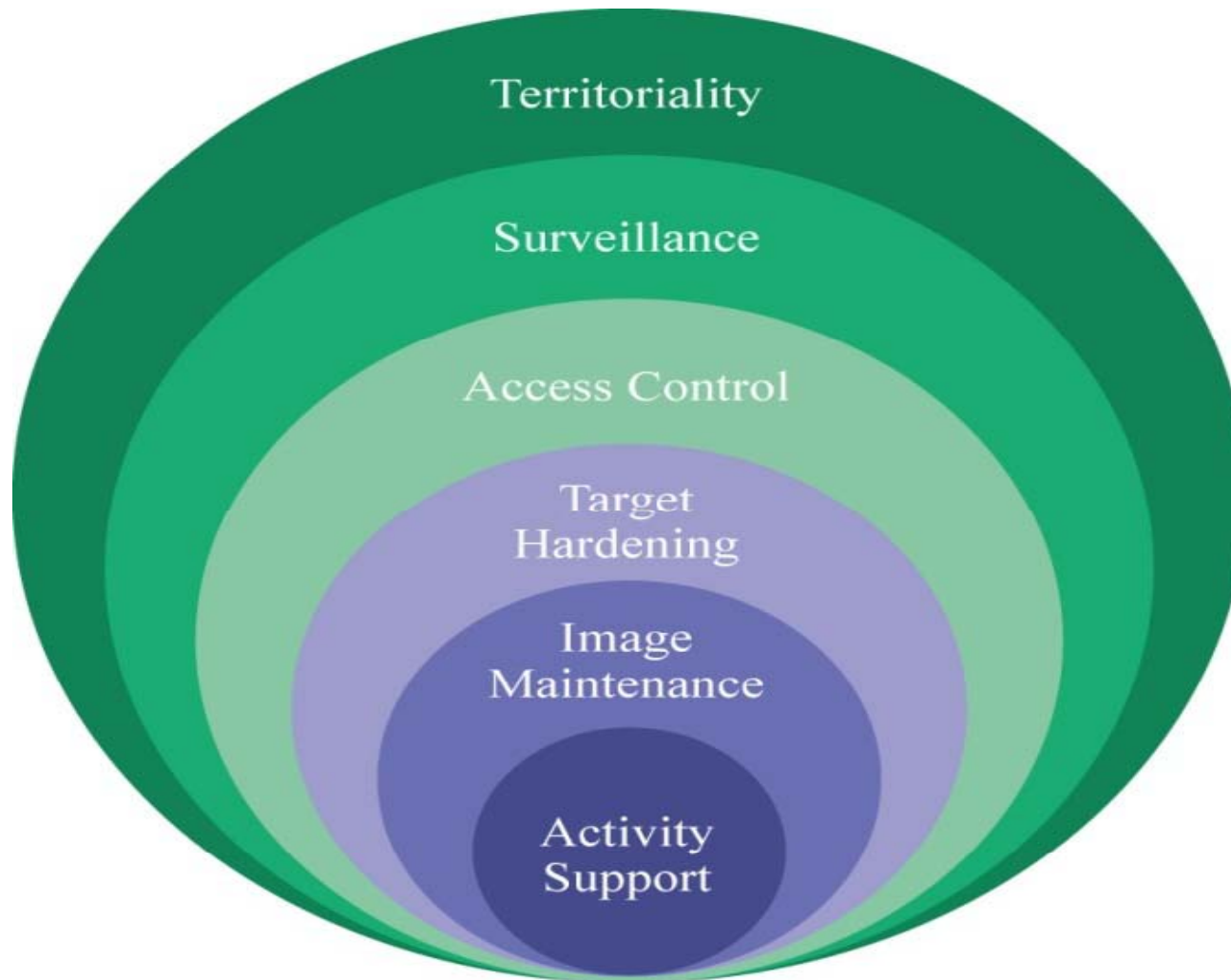
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- BUT - Existing built areas were not designed with CPTED in mind, modification difficult and expensive.

## Sustainability

- CPTED can contribute to overall sustainability
- By designing out vulnerabilities, reduces need to install specific hardware and systems that need power to operate and resources to manufacture.
- CCTV –
  - whole life costs 0000s US\$,
  - 10 tonnes of CO2 each over a 10 year life,
  - *Not* a cheap solution to overcome vulnerabilities
  - Eliminate these for far less at the design stage.





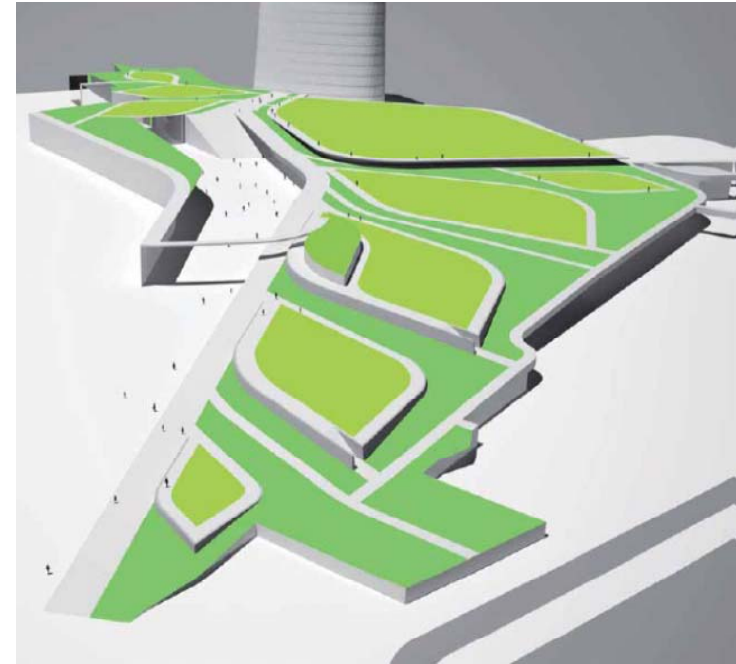


- The definition of space: intended ownership is left in no doubt.
- Doubt leads to its misuse; difficult for the legitimate users to enforce their ownership and can allow illegitimate users to usurp it and use it for their purposes.
- This ill defined usage is most common in marginal areas around the edges where there is little activity



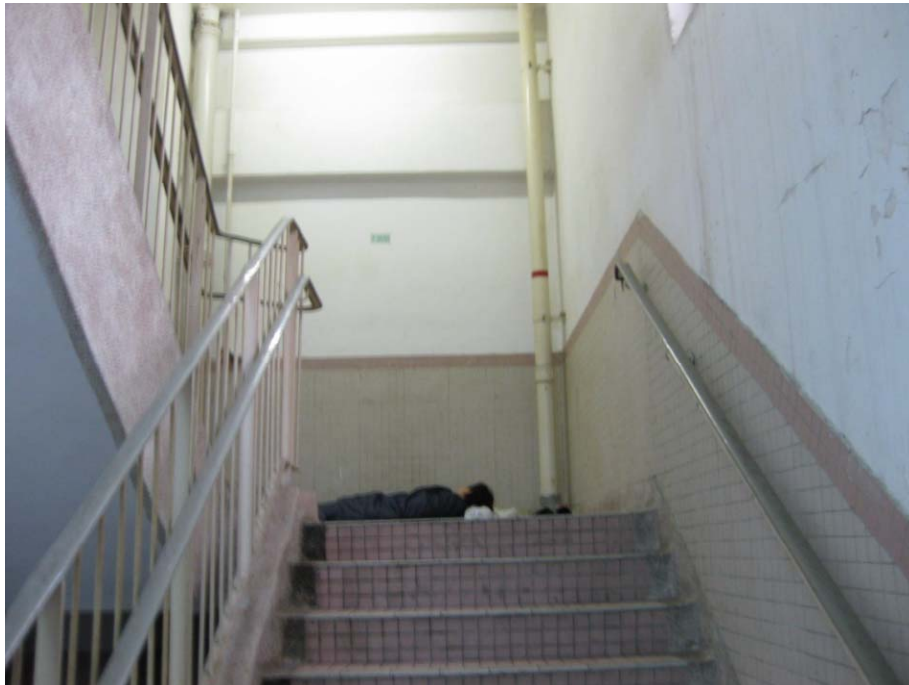
## Surveillance

- Surveillance: natural, operational and technical.
- Natural: When entering a strange area, people are more comfortable with the journey through it if they can clearly see their destination or safe waypoints



## Access Control

- Access Control is concerned with the control of movement between the types of space.
- The concept of the hierarchy of space should be used site wide

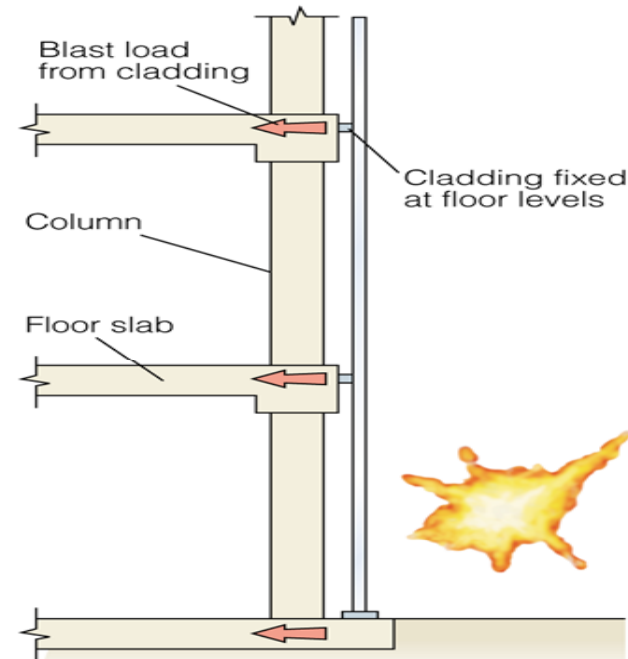


| Type of Space | Definition   |
|---------------|--|
| Public        | Any area where any member of the public can go without having to meet any criteria.  |
| Semi Public   | Any area where any member of the public can go by invitation without meeting any general criteria. Normally is the “front of house” portion of venues. Management may choose to restrict / prevent this at certain times e.g. outside retail or office hours |
| Semi-private  | Areas routinely accessible to employees only or to members of the public on meeting a certain criteria (such as buying a ticket)   |
| Private       | Areas limited to employees of the owner of the space with separate arrangements for visitors.  |
| Secure        | “Back of house” (BOH) portion of venues, limited access to authorized employees only. Special arrangements for visitor / contractor access – not free access   |
| Restricted    | Areas requiring a higher level of access rights and controls than the rest of the BOH or within private space. Normally spaces deemed critical infrastructure.   |



## Target Hardening

- Target Hardening concerns the use of materials and their ability to resist the forms of attack that may be encountered.
- Terrorism
- Paving stones



## Target Hardening



**'Engineering  
solution**



Problem...



**More aesthetic solution**



**...but where do the drinkers go?**

Lighting as target hardening









## Image Maintenance

- (BWT) Poor maintenance- no one cares, undisturbed
- Corrective action in a prompt or timely manner.
- Not an element of design – but has OPEX / CAPEX & management burden – passed back to tenants?



## Activity Support

- Activity Support: all areas have an intended use
- Ensure that design supports that use and does not encourage or facilitate undesirable uses.



Problem...



## Young need facilities



**Youth Shelter – designing for living space plus inclusion – Second Generation concept?**



## Safe Cities

- Toronto Canada
- Function of the City as a whole
- Public spaces
- Transport
- Perception & fear of crime
- Vulnerable sectors of public e.g. women / elderly
- Urban development projects – economic benefits rather than physical / architectural focus



# Part 2





# Broken Windows and Safety Management

Colin Williams and Mark Hayman

14 March 2012

# Safety Corner

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# Broken Windows...Safety??????????

How does this relate to construction?

Do broken windows equate to lack of tidiness.

1. Do untidy sites mean unsafe sites?
2. Does unsafe have a downside for business?
3. Does untidy lead to other business losses?

## Recent Accident

- Unprotected hot work taking place
- Untidy site
- IP trips on rubbish and lands on red hot steel.

Had the site been tidy would the accident have happened?

If the site was tidy would it have been as severe?



## HOW?

Old English saying; “Take care of the pennies and the pounds will look after themselves”





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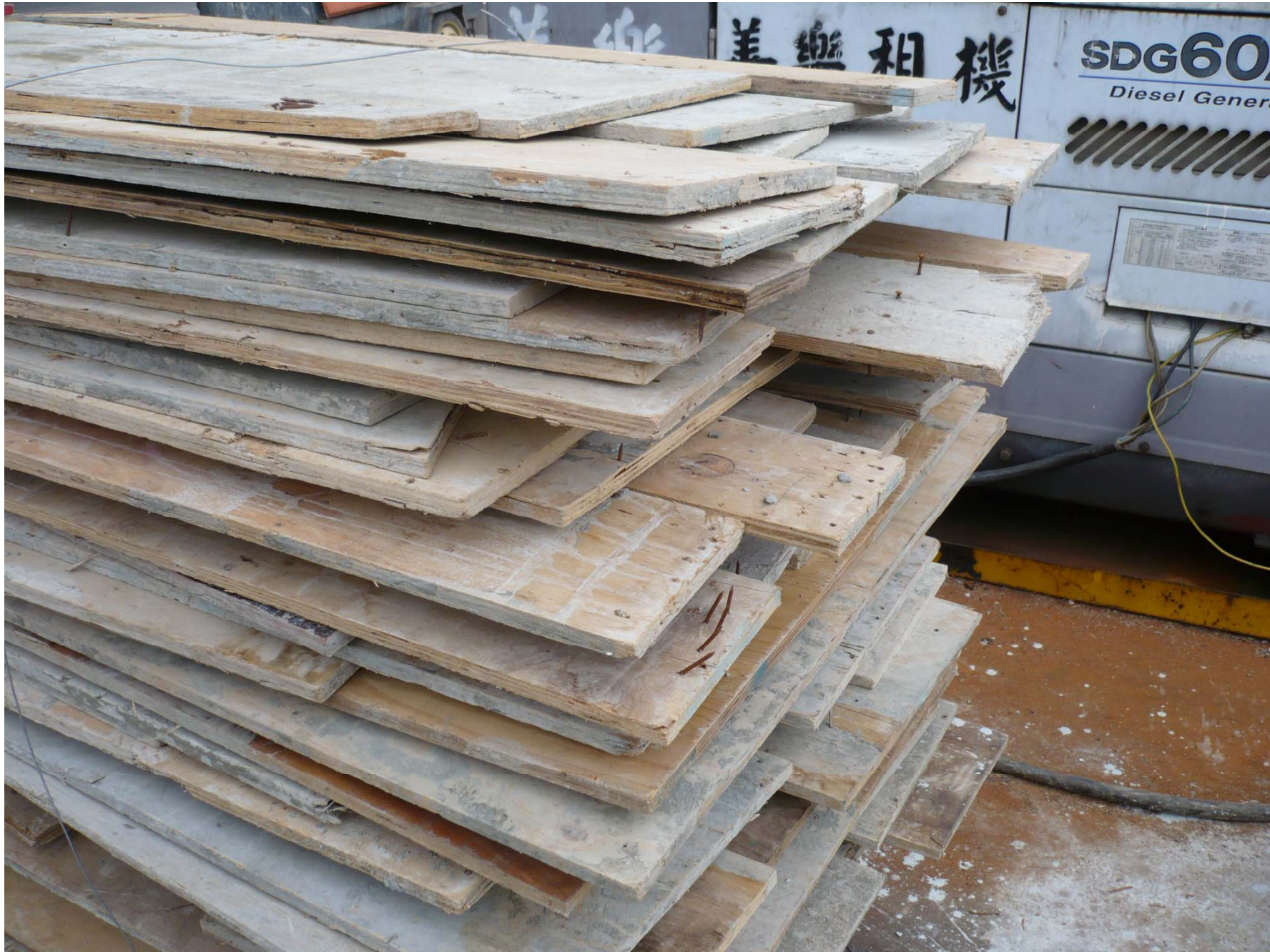












# Common Sense! - If only it was







Variations





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Why PPE Training?

# How do you keep yourself safe?

Rely on the Safety Supervisor?

Rely on someone else?

- Common Sense
- Be Aware!
- Refuse to go in unsafe areas
- Wear safety equipment properly



Which location is more likely to have a tripping accident?



What is the potential impact?

# Conclusion

Does the “Broken Windows” theory apply to safety?

Will a tidy site prevent major accidents?

- no system is perfect
- fail safe mechanisms are not infallible

BUT

a tidy site will mean that

- the rubbish to fuel a fire will not be there
- a fire extinguisher will be nearby to put out any minor fire
- The cause of trips will be gone
- There will not be any nails or hot steel to fall on

and near the iconic Kent Koolhaas designed CCTV building in Beijing. More photos.



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# The Deepwater Horizon

[http://en.wikipedia.org/wiki/File:Deepwater\\_Horizon\\_offshore\\_drilling\\_unit\\_on\\_fire\\_2010.jpg](http://en.wikipedia.org/wiki/File:Deepwater_Horizon_offshore_drilling_unit_on_fire_2010.jpg)



Any questions?