



Controlled Demolition, Incorporated (CDI) is recognized as the international pioneer and leader in explosives demolition. We have been conducting such operations since the 1940's and have brought down, literally, thousands of structures, on six continents, through the controlled use of explosives.

Explosives demolition, also known as implosion or energetic felling, can offer significant advantages over mechanical demolition or manual dismantling of certain structures, when applied by a competent firm. They are as follows:

1. Significant risk of exposure to workmen during the implosion preparation process is minimal and exposure during the actual implosion is limited to several seconds as opposed to weeks or months of time spent working at high elevations with other demolition methods.
2. The duration of public exposure to fall of debris, dust, vibration and noise, which are unpreventable byproducts of the demolition of any structure, is reduced to a few seconds during the implosion, while no one is near, rather than the weeks or months of exposure with alternative demolition techniques.
3. There is far less disruption to surrounding businesses, residential communities and traffic patterns during the preparation for, and implosion of a structure, compared to other demolition methods.

### **BELOW ARE FREQUENTLY ASKED QUESTIONS REGARDING IMPLOSION:**

#### **1. How long would the demolition take using other demolition methods as compared to implosion?**

Mechanical demolition/manual dismantling of upper floor levels, followed by use of a ground based, high-reach excavator or wrecking ball for the lower floors is a lengthy procedure, taking weeks or months. In contrast, implosion is a relatively quick process, with the actual implosion taking a few seconds and the cleanup of implosion dust from the surrounding area, a few hours.

#### **2. Which method of demolition is safer for workers and the community?**

It is the longer duration of exposure, with mechanical demolition/manual dismantling, that creates higher potential for incidents involving both workers and the public due to the accidental fall or fly of debris. Because implosion brings a structure down in a matter of seconds, the risk for potential damage to properties is minimized and the risk to persons is dramatically reduced. To ensure safety, CDI works with the local city officials, fire department and law enforcement agencies to establish an Exclusion Zone, which is a pre-determined area surrounding the structure to be imploded. Approximately 1 to 1-1/2 hours prior to an implosion, roads in the zone are temporarily closed to non-emergency traffic, workers and the general public, thus removing the opportunity for risk to persons. Implosions are usually scheduled on weekend mornings, when most businesses are closed and people are at home, which means fewer vehicles on the road.

#### **3. What effects will I feel from demolition by alternative methods compared to implosion?**

The use of machine-mounted hydraulic hammers to demolish upper floors can produce weeks or months of pounding noise and vibration through the surrounding community.

With implosion, surrounding communities will experience little or no impact during implosion preparation or even during the implosion itself, which takes place in a matter of seconds. The actual noise and ground vibration created will be well below levels of concern. CDI's demolition of reinforced concrete structures typically results in noise levels not much louder than a thunderstorm or fireworks display.



**4. How much dust will be generated by each demolition method and how long will the dust persist after the structure comes down?**

Before a structure is demolished by any method, all environmentally controlled materials are pre-removed under a process that is certified by third party environmental testing labs and regulatory agencies.

Both mechanical demolition and implosion produce the same quantity and type of dust, which falls in two categories; light and heavy particulates. Heavy particulates will settle to the ground within 200' of the base of the structure. Light particulates can remain airborne for several minutes in the immediate vicinity depending on wind speed and direction.

While mechanical demolition generates that dust over weeks or months, dust caused by implosion occurs at one "predetermined time," allowing for implementation of precautionary measures to protect hotels, businesses and residential properties in the surrounding community. Nearby properties will be individually advised to close windows, turn off air conditioning units and take any other property-specific actions, just prior to the implosion, to keep dust out of their buildings. Similar measures are not effective or even possible using mechanical demolition, which continually generates hard to control dust at above-grade elevations over a much longer period of time.

**5. Who is responsible for dust clean-up and any damages caused by the implosion?**

The Main Contractor will clean-up post-implosion dust within a few hours following an implosion. In the event damage occurs as a result of the implosion, the Implosion Contractor would be responsible for same. A detailed pre-implosion survey of adjacent properties, performed by an independent geotechnical company prior to the implosion, is compared to a post-implosion survey of those same properties. These two inspections will promptly identify any problems caused by the implosion.

**6. What is the extent and effect of implosion on surrounding buildings, utilities, equipment, etc.?**

Vibration with implosion comes from the fall of debris to grade, not the detonation of the small explosive charges that allow gravity to bring the structure down in a controlled fashion. Vibration measured at immediately adjacent properties is very low and further diminishes as distance from the debris fall-area increases. The general precautionary measures, which may have to be taken to protect immediately adjacent properties, would be the protection of street-level windows from air forced out of the imploded structure as it collapses, temporary turning off of HVAC systems and the covering of air-intakes. Other concerns are addressed on a property specific basis