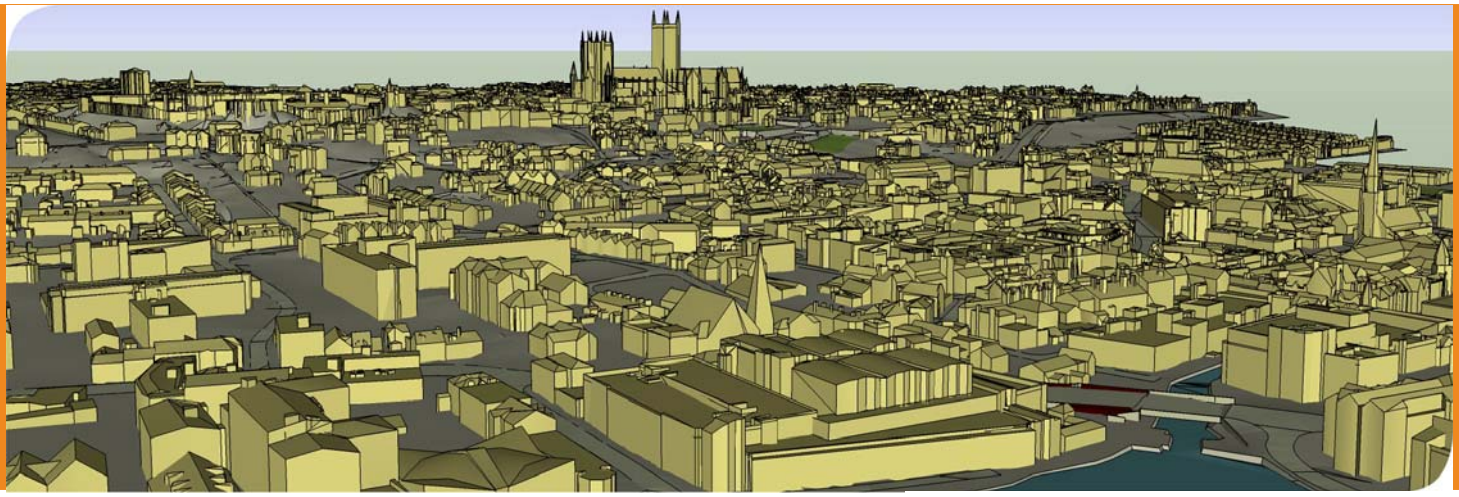
Cities Revealed



Created in collaboration with Lattico/City Vision

Case Study

City of Lincoln Council

3D Model for Proposed Development

Overview

Lincoln is an historic city identified as a growth point expecting significant levels of expansion over the next decade. City of Lincoln Council selected The GeoInformation Group' cost-effective 3D city model to help manage and scrutinise the impact of this development on the city's inherited character.

The Challenge

The City of Lincoln Council is responsible for managing projects to help decision makers and the public better understand the city, shape its development and ensure future changes are sympathetic to its surroundings. They need to analyse the impact of developments, especially taller buildings, on important views around the city such as the cathedral and the setting of the city itself.

The increasing use of 3D modelling by architects and developers led the Council to investigate the creation of a 3D model. However, collecting the data in-house was not deemed a viable option as it is a resource intensive and expensive task.

The Solution

The GeoInformation Group was selected by the Council to supply a highly detailed 3D model of the city centre. The solution, which was "the most cost effective", covers an area of 3.5km^2 and used Cities Revealed's Building Height data collected via LiDAR.

The model was created using photogrammetric software, delivered in Google SketchUp and draped with high-resolution aerial photography to provide a realistic view of the city that can be observed and assessed from any viewpoint.

This solution now resides on the Council's intranet providing direct access to all staff. This helps to make more accurate and consistent decisions based on the same data model.

> *"The GeoInformation Group took time to develop a good relationship with us and the supporting sales literature and communication was clear".*
> **City of Lincoln Council**

> *"The use of this model at the pre-application stage of emerging proposals will reduce time and money spent on drafting unacceptable plans".* **City of Lincoln Council**

A one-day training course was delivered as part of the solution that was considered essential in acquainting staff with the software and data.

Adam Partington, Townscape Character Projects Manager, comments, *"The Council is at the cutting edge of design and innovation. The City embraces the best of a medieval heritage and a vibrant modern city. We require the ability to assess new proposals to ensure that excellence is delivered. The GeoInformation Group has provided the technology that will help to build a better future".*

Use of the 3D Model

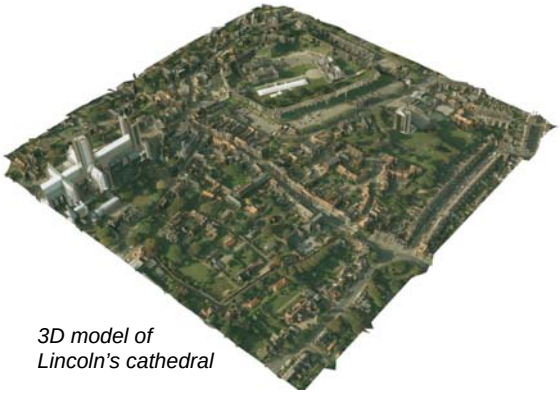
Lincoln's 3D model will be used to:

Inform and shape development proposals at the pre-application stage

Enhance proposals with consultation bodies such as English Heritage

Aid elected councillors in visualising development when making decisions on planning applications in particular scale, massing and impact on views

Assist the public in visualising development proposals through "walk around" 3D experiences allowing for the accurate consideration of views, particularly in relation to the cathedral and castle.



3D model of Lincoln's cathedral

Benefits

Enables more informed consideration of the likely impacts of developments at pre-application stage

Wasteful drafting of unacceptable plans now less likely

Makes analysis of proposed developments easier to visualise and understand

Increases the efficiency of the overall development management process, in particular:

- Public consultation
- Planning committee meetings
- Consideration of planning applications

Helps new development recognise Lincoln's distinct character

Offers flexibility so that new buildings can easily be added and new views modelled

Presents a simple solution from which all users and abilities can benefit

Provides an accurate and consistent model for measurement and line of sight views

Other 3D applications

Telecommunication network planning
Property management
CCTV location planning
Noise pollution modelling
Air pollution analysis
GPS positioning
Security risk assessment
Flight path modelling
Architectural visualisation
Marketing & promotion
Insurance risk assessment
Internet virtual reality simulations for public consultation processes
Planning control
Emergency planning
Flight simulators & gaming

"Savings are expected for applicants and architects who will be able to utilise the Council's investment rather than having to produce or purchase 3D information to support individual planning applications".
City of Lincoln Council

The GeoInformation Group

The GeoInformation Group
Telford House
Cow Lane
Fulbourn
Cambridge
CB21 5HB
United Kingdom

www.citiesrevealed.com
Telephone: 01223 880077
Fax: 01223 880097
Email: info@citiesrevealed.com