



<b>Client</b>	SEGRO
<b>Project Description</b>	<p>East Midlands Gateway is a nationally significant infrastructure project. This £500m logistics park, privately financed by SEGRO, will create over 7000 jobs. It is centrally located at the hub of the region's strategic road network adjacent to East Midlands Airport.</p> <p>Cass Hayward formed part of the design team and were responsible for the design of bridges for the scheme. This included three new bridges: the composite Kegworth Bypass bridge over the M1, a heavily skewed A50 to M1 southbound link bridge, and a rail underbridge, with modifications to two existing bridges.</p> <p>The new bridges were integral, to avoid the maintenance obligations associated with bridge bearings and joints. Of particular note, between Junctions 24 and 24A, Highways England requested that we challenged the norm to provide fully integral 45 degree skew bridge to take the free flow A50 to M1 southbound link over the relocated M1 southbound exit slip road to J24.</p>
<b>Cass Hayward Role(s)</b>	<ul style="list-style-type: none"> <li>• Fully integral 39.5 m, 45 degree skew composite bridge</li> <li>• Fully integral 49 m span composite bridge over the M1 carrying the Kegworth Bypass. This bridge was launched over the M1 using SPMTs</li> <li>• Precast prestressed concrete integral rail bridge</li> </ul>
<b>Project Statistics</b>	<ul style="list-style-type: none"> <li>• Part of £100m infrastructure construction, necessary for development of the logistics park</li> <li>• All programme milestones were achieved on time or ahead of programme</li> <li>• Installation of the M1 overbridge by launching, with handback five hours earlier than scheduled</li> </ul>
<b>Special Features</b>	<ul style="list-style-type: none"> <li>• Delivery of the much needed and long-awaited Kegworth Bypass that had previously been mired in planning for over 70 years</li> <li>• Special consideration of backfill used to limit the integral pressures on the highway bridges</li> <li>• Finite element modelling to design for bridge skew outside the limits of applicability of PD6694-1:2011</li> </ul>