Root causes of the congestion problem are as follows:

- Maylands dislocation – the original industrial estate and the town were planned (unlike many towns which have grown organically) so that the main employment uses were focused on the eastern edge of the town in one area; that area has had room for expansion and has grown, while other employment locations have shrunk. There is a lack of public transport routes that reach the edge of Hemel Hempstead and for many the only practical means of transport to Maylands is the car and
- Poor links to the rail station – this significantly impacts on travel to work patterns and the ability for employees, employers and clients to access the Business Area from the rail network, especially central London.
- The relative distance from the town centre, which is better served by public transport and has the much needed support services and facilities, including shops and places to eat, which Maylands currently lacks.
- Good access to Maylands from the M1, encouraging the use of the car as a mode of travel from surrounding areas.

Improvement of the road network is an important part of the movement strategy, but, to make a real impact, viable alternatives to the car need to be provided in order to provide more sustainable forms of travel, and reduce the economic and environmental impacts of traffic congestion.

The aim of an exciting sustainable Movement Strategy is to raise the transport profile for all modes of travel, not simply the use of the sole occupancy private car as the main form of transport. The approach is to put forward measures to reduce the number of private cars, to manage the drivers of cars that still choose to travel by car and then to propose road improvements where required. It is important that the measures are fully compatible with the wider vision.

Key elements of the public transport strategy are:

- A new dedicated high quality, high profile bus service linking the Maylands Business Park and proposed Park and Ride with the Town Centre, bus station and railway station. The bus should be branded and operate on low emission fuel.
- A Park and Ride facility, linked into the new strategic bus link.
- Best use of existing services, including the local no. 14 service and the 301 service linking to St Albans and beyond.
- High quality bus shelters and bus priority measures
- Real Time passenger Information.

Separate parking for heavy goods vehicles will be provided from the main signposted HGV route, possibly as part of the Park and Ride facility. This would be in addition to existing HGV Parking, but would be publicly owned and offer free parking.

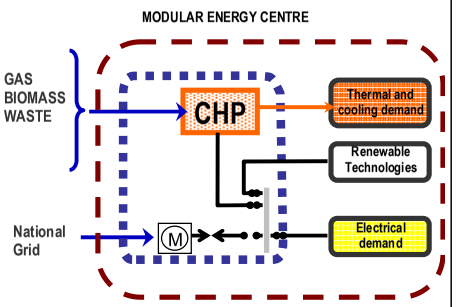
Cycle/pedestrian route improvements will build on the proposals in the Local Plan and Cycling Strategy, forming better linkages with the surrounding residential areas. It is also important to address the existing unfriendly nature of Maylands Avenue for pedestrians and cyclists.

Although the transport focus is on sustainable measures, the scale of the Business Park is such that highway solutions will be necessary.

Key elements will be:

- A new road running north from a new signalised junction on Breakspear Way to serve the Gateway and to provide an additional access point into Maylands.
- A new bus-only link between the new access road and Boundary Way.
- Completion of the North East Relief Road.
- Modification of Maylands Avenue junction with bus priority.
- Separation of HGVs from cars onto a lorry route, signposted from A414 at Green Lane.
- Improvements to Maylands Avenue, Wood Lane End and surface treatment of Maylands internal road system.
- Identification of a road hierarchy throughout the Business Park with appropriate signage to leave the driver in no doubt as to his/her destination.

The Energy Centre Approach

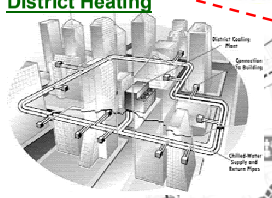


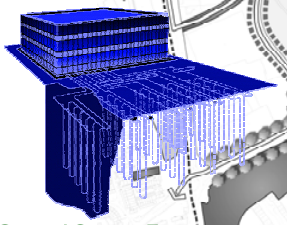
Energy Centre Approach
- Uses land which is constrained by Buncefield HSE guidelines
- As a solution to phasing issues, an energy centre approach can be implemented as a means of modularising the site-wide energy strategy
- The energy centre is proposed to incorporate a visitor centre and show how Maylands is a beacon development of sustainability and renewable energy use

Combined Heat & Power
- CHP and district heating are currently the preferred sustainable supply systems (London Plan)
- Can be fired by gas, biomass or waste depending on fuel availability
- Absorption chillers can utilise high grade waste heat to provide cooling to buildings
- Can be modularised to enable building in phase with development as it occurs
- Potential to have multiple, nodal energy centres supplying heat and power efficiently to clusters of buildings
- May need to be combined with other low or zero carbon supply sources as size of installation would be limited to baseload demand
- Requires careful planning to ensure that future/refurbished buildings can be connected to the network system
- Potential to supply surrounding residential developments as part of a sustainable communities plan
- District heating main needs to be planned in accordance with other existing and planned underground utilities

Waste to energy
- Potential to use clean waste processing technologies such as gasification to fuel the CHP
- Can utilise onsite waste streams as well integrate into large waste management schemes to encompass adjacent communities

District Heating





Ground Source Energy

Gasification- Onsite waste management and energy solution

CHP

Biomass

Building Integrating solar thermal and PV

Onsite Wind

CHP

Central Energy Facility

CHP – Woking Town Centre

Wind
- Clean technology with limited footprint
- No fuel supply issues
- Needs to located away from residential areas (400-500m) - similar constraint to the distance required from the oil depot
- Unlikely to be more than a single large turbine
- Potential planning issues (visual impact, noise, shadow flicker, negative public perception)
- A large turbine could supply a reasonable proportion of the site electricity needs.
- Potential for an offsite wind farm should be explored – perhaps use the green belt land constrained by the HSE buffer zone around the depot

Biomass
- Could be locally sourced, boosting local economy
- Scalable, expandable resource
- Long term fuel supply contracts need to be secured
- Sufficient space onsite for fuel deliver, processing and storage

Solar PV
- Expensive but clean technology
- Very little impact on surroundings (benign)
- Potential for use around the site, on buildings and street furniture as required
- Large areas of space required to generate significant quantities of electricity
- Unlikely to make a significant contribution to the site energy needs

Solar Thermal
- Can provide hot water to a single building or feed into a district system to serve a cluster
- Requires storage relatively close to panels

Ground Source Energy
- Potential to use other land use areas such as car parks for energy pile centres
- Can be incorporated to suit site development
- Provides capacity to inter-seasonally manage the imbalance between heating and cooling loads e.g. underground thermal energy storage (UTES)

Key

District heating main

Potential to connect future residential developments to the district system

The Maylands Green Energy Centre - Concept Diagram