Infrastructure Requirements Summary Topic Paper

2026

A4.1 Background

A4.1.1 This Topic Paper summarises the contents of the Infrastructure Delivery Plan (IDP) which accompanies this local plan. The full IDP can be viewed here: https://localplan.southend.gov.uk/evidence-documents.

A4.1.2 The IDP should be treated as a 'live document' which provides a snapshot at a point in time and will need to be updated as development proposals and other circumstances across the City area change. The IDP could therefore form the basis for further updates as the Local Plan progresses through examination and is subsequently adopted.

A4.1.3 The IDP forms a key part of the Local Plan evidence base. It assesses the existing provision of infrastructure throughout the city area and sets out details of what additional essential infrastructure is required to ensure the successful sustainable implementation of the strategic policies contained in the new Local Plan.

A4.1.4 The IDP does not consider all infrastructure types but instead focuses on key items of infrastructure which will be required to support the delivery of growth proposed in the emerging new Local Plan. 'Infrastructure' is defined as physical, social and green items required to enable sustainable development.

A4.1.5 The IDP has assessed the infrastructure requirements of the local plan growth strategy. This proposes a total of 14,700 dwellings over the Plan period up to 2045. As part of this total the IDP considers the infrastructure required to support and mitigate the allocation at Land North of Southend for a new neighbourhood of 4,900 homes (plus other uses).

A4.1.6 The infrastructure needs and projects identified in the IDP which are key to achieving delivery of the local plan, based on the growth strategy, are summarised below.

A4.2 Infrastructure Needs Summary
Land Within the Existing Urban Envelope of Southend, Fossetts Farm and Bournes Green new neighbourhood (LNOS)

A4.2.1 Highways and Transport

A4.2.2 The strategic highway network in and around Southend experiences significant congestion, particularly on the A127 and A13 corridors, with sections of the network operating close to, or at, their practical capacity. The scale of growth proposed through the new Local Plan, including the delivery of new homes, employment development and the proposed new neighbourhood at Land North of Southend, will increase demand across the highway network, public transport services and active travel routes throughout the city.

A.4.2.3 The Council has commissioned and is progressing a comprehensive Transport Assessment, supported by strategic transport modelling undertaken by Pell Frischmann, to assess the cumulative impacts of growth and identify the infrastructure and mitigation measures required to ensure the sustainable delivery of development. Emerging evidence indicates that a package of highway, public transport and active travel interventions will be required, including improvements to key junctions and corridors, enhanced bus infrastructure and services, improved rail accessibility, and the delivery of strategic walking and cycling connections. The current evidence identifies transport mitigation packages across highway, bus, rail and active travel networks, highlighting the scale of investment likely to be required over the plan period.

A4.2.4 Given the scale and spatial distribution of growth, transport infrastructure investment will be particularly important in areas accommodating higher levels of development, including the city centre, Fossetts, and Land North of Southend. The A127 corridor remains a critical strategic route for Southend, South Essex and access to London Southend Airport. Evidence indicates that limited capacity at key junctions on the A127 within Southend and associated routes may present a significant constraint to future growth and airport accessibility if not addressed. The delivery of planned development will therefore be dependent upon the timely provision of transport mitigation measures and continued collaboration infrastructure providers and transport operators to secure the necessary investment and improvements

A4.2.5 Community Infrastructure

A4.2.6 The City generally benefits from a good range of community infrastructure, and many growth-related needs are expected to be met through a combination of enhancements to existing facilities, developer contributions, and the direct delivery of new community infrastructure within strategic development locations. However, population growth will increase demand for a range of community services and facilities, including libraries, community hubs, family support services, cultural facilities, allotments and burial provision.

A4.2.7 The IDP identifies a requirement for additional community infrastructure to support new and existing communities, including the potential provision of a new Best Start Family Hub and network site, enhanced community hub facilities, and additional library and cultural provision, particularly in areas accommodating significant growth. There is also a recognised need to address the long-term shortage of burial space within the City.

A.4.2.8 The Council is currently exploring options for additional cemetery provision. In addition, planned growth is likely to increase demand for allotment provision and community growing spaces, with opportunities expected to be explored through the masterplanning/ concept planning of major development sites, particularly within Land North of Southend. The delivery of community infrastructure alongside housing growth will be important to support community wellbeing, social cohesion and the creation of sustainable neighbourhoods.

A.4.2.9 Education

A4.2.10 The growth identified through the Local Plan will increase demand for early years and childcare (EY&C), primary, secondary, post-16 and Special Educational Needs and Disabilities (SEND) provision across Southend. Whilst some existing capacity exists within the City, the Education Authority advises that available surplus places should be treated with caution, as they are not always located where demand arises and may not be readily available to accommodate development-generated pupils. As a result, additional education infrastructure will be

required to support planned growth, with funding expected to be secured through developer contributions and other available education funding mechanisms.

A.4.2.11 Growth is expected to generate a requirement for approximately 1,000 additional early years and childcare places across the city. Existing capacity within the sector is limited, and additional provision is likely to be required through a combination of expanded facilities and new early years settings delivered alongside development.

A.4.2.12 In relation to primary education, although pupil numbers are currently declining as a result of lower birth rates and some schools have surplus places, Local Plan growth is expected to generate demand for approximately 2,600 additional primary-age pupils. Existing surplus capacity cannot be assumed to accommodate all future demand and further primary education infrastructure is likely to be required. This is expected to include a combination of school expansions, reconfiguration of existing provision and, where necessary, new primary school facilities, with requirements to be refined through detailed planning, pupil forecasting and engagement with education providers.

A.4.2.13 The secondary sector is already experiencing capacity pressures, with forecasts indicating that existing surplus places are likely to reduce significantly over time. The Education Authority identifies that planned growth will generate substantial additional demand for secondary school places and that further investment in secondary education infrastructure will be required. This is expected to be delivered primarily through optimisation and expansion of the existing secondary school estate, together with additional secondary school capacity where necessary to meet future needs.

A.4.2.14 Growth will also increase demand for post-16 education and training provision. Whilst this demand is anticipated to be largely accommodated through existing sixth forms, further education institutions and vocational training providers, additional investment in teaching accommodation, specialist learning environments and skills provision may be required over the plan period. Continued engagement with education providers and the Department for Education will be necessary to ensure sufficient capacity is available.

A.4.2.15 The Local Plan will also increase demand for SEND provision. National and local trends continue to show rising numbers of children and young people requiring specialist educational support. Future needs are expected to be met through a combination of expanded specialist provision, additional resource bases within mainstream schools, and enhancements to existing SEND facilities. The precise scale and location of provision will be informed through ongoing monitoring of pupil needs and education planning.

A.4.2.16 Emergency Services

A4.2.17 The planned growth within the Local Plan will place additional demands on all emergency service providers and will require investment in infrastructure, facilities, equipment and operational capacity to ensure service standards can be maintained. Existing emergency service resources are already experiencing operational pressures and, in some cases, are operating at or close to capacity.

A.4.2.18 The East of England Ambulance Service NHS Trust (EEAST) has advised that population growth will increase demand on ambulance response services, emergency call handling and supporting infrastructure. To accommodate growth, additional investment is likely to be required in frontline ambulance vehicles, vehicle preparation and make-ready facilities, staff welfare accommodation, electrical power upgrades, rapid

electric vehicle charging infrastructure and expansion of the Southend Ambulance Hub. EEAST has also identified the potential need for additional ambulance response posts to maintain operational coverage and response times as the population increases.

A.4.2.19 Essex Police has advised that new residential development will generate additional demands on policing services, including neighbourhood policing, community safety, crime prevention and specialist support functions. Growth is expected to require additional police infrastructure and facilities, which may include enhanced police station accommodation, communications and ICT infrastructure, vehicles, public safety technology and additional operational resources. Developer contributions are likely to be required to mitigate the impacts of growth on community safety, cohesion and policing services.

A.4.2.20 Essex County Fire and Rescue Service (ECFRS) has advised that existing fire and rescue resources within Southend are operating at capacity and would be affected by further population growth. Additional investment will therefore be required in fire and rescue infrastructure, equipment, communications technology, operational facilities and station modernisation. Current evidence indicates that growth can be accommodated through the enhancement, expansion and refurbishment of existing facilities, including improvements to Southend and Shoeburyness Fire Stations. Whilst no requirement for a new standalone fire station has been identified at this stage, the position will continue to be reviewed as growth proposals progress and service requirements evolve. Funding could be secured through a combination of Section 106 agreements, Community Infrastructure Levy (CIL) receipts and other available funding sources where appropriate

A4.2.20 Health

A4.2.21 There is a existing deficit in primary healthcare capacity across Southend, with the IDP identifying a cumulative shortfall of approximately 4,500m^2 of clinical floorspace across the city's Primary Care Networks. Most GP practices are operating beyond their functional capacity, with limited opportunities for expansion due to site constraints, building limitations and funding pressures. The existing deficit is particularly pronounced within the Southend Victoria and Southend East Primary Care Networks.

A4.2.22 The growth planned through the Local Plan will further increase demand for primary healthcare services, including GP provision, community health services and wider neighbourhood health facilities. The NHS Essex Integrated Care Board (ICB) has advised that existing primary care infrastructure is already constrained and that additional healthcare capacity will be required to support planned growth. Growth within the existing urban area and Fossetts Farm is expected to generate a requirement for approximately 1,300m^2 of additional primary care floorspace, with infrastructure focused around the principal growth locations, including Southend Central and the Fossetts corridor.

A4.2.23 When combined with the existing identified shortfall, the overall primary healthcare deficit is projected to exceed 5,800m^2 over the plan period. The delivery of additional capacity is likely to comprise a combination of new healthcare facilities, health hub provision, and the expansion or reconfiguration of existing GP practices where feasible. The precise form, location and phasing of new provision will be informed by the emerging neighbourhood health model being developed by the NHS Essex ICB, together with future healthcare estate strategies and the detailed pattern of development across the city.

A4.2.24 Growth is also expected to place additional pressure on acute and secondary healthcare services, particularly those provided by Mid and South Essex NHS Foundation Trust, including Southend University Hospital. Whilst no specific acute healthcare infrastructure projects have yet been identified directly as a consequence of Local Plan growth, the NHS has confirmed that all acute hospital sites are constrained and are experiencing increasing operational pressures. Future infrastructure requirements will therefore need to be considered through the Integrated Care Board's emerging infrastructure strategy and the Trust's developing long-term clinical and estates strategies.

A4.2.25 **Green Infrastructure and Open Space**

A4.2.26 The infrastructure implications of growth in relation to green infrastructure and open space are significant and will require a coordinated and strategic approach to ensure that existing and future residents have access to a high-quality network of multifunctional green and blue infrastructure. Green infrastructure should contribute not only to recreation and amenity, but also to biodiversity enhancement, climate resilience, health and wellbeing, sustainable drainage, active travel and nature recovery objectives.

A4.2.27 The delivery of growth should be supported by the provision of accessible and well-connected green infrastructure in accordance with the Council's Open Space Standards, the South Essex Green and Blue Infrastructure Strategy, the Essex Local Nature Recovery Strategy and relevant Natural England guidance. Wherever possible, green infrastructure should be provided on-site as an integral part of new development, creating accessible green spaces that directly serve local communities and contribute to the creation of sustainable neighbourhoods. Off-site financial contributions may also be required where strategic enhancements to the wider green infrastructure network are necessary.

A4.2.28 New development should contribute towards the delivery of strategic green and blue infrastructure projects, including enhanced public open space, accessible natural greenspace, biodiversity corridors, active travel connections, urban greening, tree planting and ecological enhancements. Long-term management and maintenance arrangements will also be required to ensure that new green infrastructure remains functional, safe and attractive throughout the lifetime of development.

A4.2.29 Planned growth is also likely to increase recreational pressure on internationally designated habitat sites along the Essex Coast. In addition to contributions towards the Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy (RAMS), residential developments of 500 or more dwellings may be required to provide development-specific green infrastructure mitigation, including Suitable Alternative Natural Greenspace (SANG) where necessary to avoid adverse effects on protected habitats, in line with Natural England guidance. The preference should be for on-site SANG, followed by off-site SANG enhancement of appropriate existing green spaces. Such mitigation should be delivered and operational prior to occupation of new homes and supported by secured long-term management arrangements.

A4.2.30 The strategic delivery of green infrastructure will therefore be essential to support growth, improve environmental quality, strengthen biodiversity networks and contribute to the long-term vision for a connected and resilient green and blue infrastructure network across Southend.

A4.2.31 **Sport, Indoor and Built Facilities**

A4.2.32 Evidence indicates that current and future needs for playing pitches and sports facilities can largely be addressed through improvements to the quality, accessibility and management of existing infrastructure. The Playing Pitch and Outdoor Sports Strategy identifies opportunities to increase capacity through enhanced maintenance regimes, investment in existing facilities, improved community access to education sites and better utilisation of the current sports estate. However, there are some specific shortfalls and infrastructure requirements across a number of sports and facility types, including football pitches, 3G artificial grass pitches, rugby provision, hockey facilities, athletics infrastructure and Multi-Use Games Areas (MUGAs).

A4.2.33 The 2026 Built Facilities Strategy concludes that existing indoor provision, including sports halls and swimming pools, is generally capable of accommodating projected growth but will need to be protected, modernised and enhanced, with improved community access. Identified deficiencies in the quality of provision also need to be addressed. Priority projects include improvements to sports halls, swimming pools, athletics facilities, health and fitness suites and other community sports infrastructure.

A4.2.34 As Southend continues to grow, demand for both indoor and outdoor sports and recreation facilities will increase. Additional infrastructure requirements will be assessed using Sport England's Playing Pitch Calculator and Sports Facilities Calculator, alongside local evidence of facility capacity, quality and accessibility. The delivery of new and enhanced sports infrastructure will therefore be supported through a combination of developer contributions, external grant funding, Council investment and partnership working with Sport England, national governing bodies and facility providers, ensuring that sports provision continues to support healthy communities and active lifestyles across the city.

A4.2.35 **Flood Management**

A4.2.36 Parts of the city are currently subject to significant flood risk from a range of sources, including fluvial, tidal, surface water and sewer flooding. Areas associated with the Prittle Brook, Eastwood Brook and Willingale Brook are particularly susceptible to fluvial flooding, while sections of the seafront, estuary frontage and parts of Shoeburyness are vulnerable to tidal flooding. There are also areas at risk from surface water flooding throughout the city. Climate change is expected to increase these risks through higher peak river flows, more intense rainfall events and rising sea levels. Consequently, new development in areas affected by flood risk will be required to demonstrate, through site-specific Flood Risk Assessments, that flood risk can be appropriately managed both on and off site and that development remains safe for its lifetime without increasing flood risk elsewhere.

A4.2.37 Existing flood defence infrastructure, including coastal defences along the Thames Estuary frontage and flood management assets associated with the city's watercourses, will continue to play a critical role in protecting communities and supporting sustainable growth. Ongoing investment in the maintenance, enhancement and adaptation of these assets will be required to ensure they remain effective in responding to the projected impacts of climate change and the objectives of the Thames Estuary 2100 Plan.

A4.2.38 Surface water flooding presents a significant and widespread challenge across Southend, with several Critical Drainage Areas identified where existing drainage infrastructure is under pressure and where historic flooding incidents have occurred. The capacity of the drainage network

will therefore need to be enhanced as growth comes forward. Development proposals should apply the drainage hierarchy and incorporate Sustainable Drainage Systems (SuDS) and other nature-based solutions wherever feasible to reduce runoff rates, improve water quality, increase biodiversity and provide wider environmental benefits.

A4.2.39 Given the extent of flood risk across parts of the city, flood mitigation and drainage infrastructure should be considered an integral component of all major development proposals. New development will be expected to incorporate appropriate flood resilience and flood risk management measures from the outset, including sustainable drainage, attenuation, surface water management and climate adaptation measures. The design of schemes should have regard to current and future flood risk, the Strategic Flood Risk Assessment, Surface Water Management Plan and the requirements of the Lead Local Flood Authority, Environment Agency and other relevant infrastructure providers.

A4.2.40 Utilities – Electricity

A4.2.41 UK Power Networks (UKPN), through its Eastern Power Network (EPN), is the Distribution Network Operator responsible for electricity infrastructure serving Southend. Southend is supplied from the Rayleigh Grid Supply Point via a network of Bulk Supply Points and primary substations that distribute electricity across the city. Current network information indicates that the primary substations serving Southend retain positive demand headroom at present, with a combined capacity of approximately 24.3MW. However, UKPN forecasting demonstrates that this headroom is expected to reduce significantly over time as a consequence of background growth and the increasing electrification of heat and transport. Several primary substations are forecast to exhaust their available capacity by 2035, and all Southend primary substations are forecast to be operating in deficit by 2045 without further investment and reinforcement.

A4.2.42 The growth proposed through the Local Plan will increase electricity demand and is likely to require reinforcement of parts of the local distribution network. The precise nature, scale and timing of any network upgrades will depend on the location, phasing and energy requirements of individual developments and can only be confirmed through detailed connection applications and network assessments undertaken by UKPN. Potential interventions may include upgrades to existing substations and associated network infrastructure, additional feeder capacity, and reinforcement of higher-voltage distribution networks where required.

A4.2.43 UKPN has advised that there are currently no strategic electricity capacity constraints affecting Southend; however, the network is dynamic, and future requirements will depend on the cumulative effect of new development and wider energy demand. Reinforcement works on the 11kV network can typically take one to two years to deliver, whilst more substantial upgrades at higher voltages may require four to five years. Early engagement with UKPN will therefore be essential to ensure that electrical infrastructure is delivered in step with development and that sufficient capacity is available to support planned growth.

A4.2.44 In addition, the increasing transition towards electric vehicles, low-carbon heating technologies and the wider decarbonisation of buildings is expected to further increase electricity demand over the plan period. The delivery of growth will therefore need to be supported by timely investment in electricity infrastructure and ongoing coordination between developers, the Council and UKPN to ensure the resilience and capacity of the network can be maintained.

A4.2.45 Utilities – Gas

A4.2.46 Cadent Gas is the Gas Distribution Network Operator responsible for the gas network serving Southend through its North London network. National and regional gas infrastructure planning is increasingly influenced by the transition towards a low-carbon energy system, with Cadent's latest Long Term Development Plan forecasting a gradual reduction in overall gas demand over the longer term as heating and transport sectors become increasingly electrified. Nevertheless, the gas network will continue to play an important role throughout the plan period, and Cadent has advised that there are currently no known gas network constraints affecting Southend.

A4.2.47 Cadent's investment programme includes the continued replacement of ageing gas mains through the Iron Mains Replacement Programme, improving network resilience, safety and future compatibility with lower-carbon gases such as hydrogen. The company is also exploring opportunities to facilitate the future distribution of biomethane and hydrogen as part of the wider decarbonisation of the energy network.

A4.2.48 Whilst the growth planned through the Local Plan has the potential to increase demand for gas infrastructure in some locations, future residential development is expected to be increasingly delivered in accordance with emerging national standards that promote low-carbon heating technologies and reduce reliance on natural gas. As a result, future gas demand associated with new development is likely to be lower than historically experienced. Where new gas connections are proposed, the requirement for network reinforcement will be determined on a site-by-site basis through engagement with Cadent and the submission of formal load enquiries. Early engagement with the network operator will therefore be important to ensure that any infrastructure requirements are identified and delivered alongside development.

A4.2.49 Utilities – Communications

A4.2.50 Southend benefits from a well-developed digital communications network and continues to be the focus of significant investment in fixed and mobile connectivity infrastructure. The South Essex Councils, including Southend-on-Sea City Council, are working collaboratively to support the expansion of full fibre and gigabit-capable broadband infrastructure across the sub-region. Openreach has continued its commercial roll-out of full fibre broadband across the city, whilst CityFibre, Vodafone and other internet service providers have expanded gigabit-capable broadband services to homes and businesses. In addition, Virgin Media O2 is progressing investment in next-generation fibre infrastructure to further enhance digital connectivity and consumer choice across Southend.

A4.2.51 The city also benefits from ongoing digital infrastructure programmes being delivered through Essex-wide and South Essex partnerships. These include initiatives supported through Digital Essex and Project Gigabit, which seek to improve gigabit-capable broadband coverage and ensure that residents and businesses have access to high-quality digital services. The Council is also working with partners to support the rollout of improved mobile connectivity, including 5G infrastructure, recognising the importance of high-speed digital networks in supporting economic growth, innovation, public services and modern ways of working.

A4.2.52 Digital infrastructure is not currently considered to represent a constraint to growth within Southend. However, continued investment in broadband, mobile communications and associated digital infrastructure will be required to support new development, meet increasing

data demands and ensure that future residents and businesses have access to reliable, high-capacity communications networks. Developers will be expected to work with infrastructure providers at an early stage to ensure that new development is served by appropriate digital connectivity from the outset.

A4.2.53 **Utilities – Potable Water**

A4.2.54 Essex and Suffolk Water (ESW) is the statutory water undertaker responsible for supplying potable water to Southend. The city lies within the Essex Water Resource Zone (WRZ), which is supplied principally from the Rivers Chelmer, Blackwater, Stour and Roman River, together with Hanningfield Reservoir and associated treatment infrastructure. ESW's latest Water Resources Management Plan (WRMP24), covering the period 2025 to 2050, identifies increasing pressures from population growth, climate change and drought resilience requirements across the Essex WRZ. Despite these challenges, ESW's current strategy combines demand-management measures, leakage reduction and strategic investment to maintain water supply resilience throughout the plan period.

A4.2.55 The growth planned through the Local Plan will increase demand for potable water across Southend. Based on the latest population and water consumption assumptions, Local Plan growth is estimated to generate an additional water demand of approximately 3.9 megalitres per day (ML/d) by 2045. ESW has advised that the strategic water supply network serving Southend already experiences capacity pressures in parts of the system, particularly during periods of peak demand or emergency operation, and that future growth is likely to require network upgrades and reinforcement.

A4.2.56 Future infrastructure requirements may include upgrades to strategic water mains, reinforcement and reconfiguration of the local distribution network, and enhancements to wider water supply infrastructure to maintain network resilience and security of supply. The precise scale, timing and location of any improvements will depend on the pattern and phasing of development and will need to be assessed by ESW as development proposals come forward. Developers are therefore encouraged to engage with ESW at an early stage of the planning process to establish infrastructure requirements and delivery timescales. ESW has advised that local upgrades can typically take between 18 months and three years to deliver, while more strategic improvements may require between three and five years from the point at which development proposals become sufficiently certain.

A4.2.57 The delivery of water supply infrastructure is expected to be funded through the water industry's regulatory investment programmes together with developer-funded infrastructure and connection charges, where appropriate. These mechanisms help ensure that the necessary water supply infrastructure is delivered in parallel with development and that sufficient capacity is available to serve future growth.

A4.2.58 **Wastewater treatment**

A4.2.59 Wastewater collection and treatment services within Southend are provided by Anglian Water Services (AWS). The Southend Water Recycling Centre (WRC) catchment serves the whole of the administrative area, together with parts of neighbouring authorities. AWS has advised that, whilst there is currently available dry weather flow capacity within the existing Southend WRC consented limits, planned growth across the city is likely to increase pressure on the wastewater network and associated drainage infrastructure.

A4.2.60 AWS has confirmed that there are currently no specific growth-related upgrades planned for the Southend WRC itself, and that existing consented capacity is capable of accommodating the forecast wastewater flows arising from the Local Plan. However, the ability of the wider sewerage network to accommodate development will depend on the location, scale and phasing of growth, and further assessment will be required as individual development proposals come forward. Growth is expected to place additional pressure on existing sewerage infrastructure, storm overflow assets and network capacity, particularly in parts of the city where historic drainage and sewer flooding issues have been identified.

A4.2.61 AWS is currently investing in the resilience and performance of the wastewater network through a range of programmes, including network capacity improvements, storm overflow reduction measures, flood risk reduction projects and the Advanced WINEP Urban Regeneration Programme, which incorporates sustainable drainage and nature-based solutions to reduce flows entering the sewer system. The company is also preparing the next Drainage and Wastewater Management Plan (DWMP28), which will inform future investment requirements beyond 2030 and help address the long-term implications of growth, climate change and environmental obligations.

A4.2.62 Future wastewater infrastructure improvements will be delivered through a combination of Anglian Water investment programmes and developer-funded works, including new connection charges, requisition costs and site-specific network upgrades where required. Developers will be expected to engage with AWS at an early stage to identify sustainable points of connection, assess available network capacity and ensure that wastewater infrastructure can be delivered in step with development.

A4.2.63 **Waste Management**

A4.2.64 The latest evidence indicates that Southend has a well-established network of waste management facilities, recycling centres and transfer stations, and there are currently no significant strategic waste infrastructure deficits that would constrain the delivery of growth proposed through the Local Plan. Existing waste management capacity within the city is generally considered sufficient to accommodate forecast growth over the plan period, although some facilities are operating closer to capacity than others and will require ongoing monitoring.

A4.2.65 The Council's emerging Resources, Recycling and Waste Strategy 2025-2035 seeks to support a transition towards a circular economy, maximise recycling and reuse, reduce waste sent to landfill and improve the management of resources across the city. Growth will inevitably increase the volume of household and commercial waste generated, placing additional demands on collection, recycling and disposal services. However, at present no major new waste management facilities have been identified as being required specifically to support Local Plan growth.

A4.2.66 The principal implications of growth are expected to relate to increased operational requirements, including waste collection services, vehicle capacity, recycling infrastructure and associated service provision. Future investment requirements will continue to be reviewed through the Council's waste management strategies, service planning and future updates to the Essex and Southend Waste Local Plan.

Should monitoring identify capacity constraints or changing waste management requirements, appropriate infrastructure improvements and service enhancements will be considered as part of future investment programmes.

A4.2.67 Overall, the current evidence indicates that the planned growth can be accommodated within the existing strategic waste management framework, subject to ongoing service investment, monitoring and the continued implementation of the Council's waste reduction and recycling objectives.

A4.3 New Neighbourhood Land North of Southend, Strategic Policy SP 2B (Bournes Green)

A4.3.1 The development of land north of Southend has been identified as a new neighbourhood within the local plan. The IDP considers the infrastructure required to support and mitigate the proposed allocation at Land North of Southend for a new neighbourhood of 4,900 homes (plus other uses). This is summarised in Table A4.1 below.

A4.3.2 The information within the IDP will be subject to further review as part of the masterplanning/concept plan and planning application process, where further details will become known about the land use mix, housing mix, site and wider infrastructure requirements and their detailed costings (including indexation).

A4.2.6.7 The main infrastructure requirements are summarised in Table A4.1 and are divided between the existing urban area and Bournes Green (LNOS).

Table A4.1: Main Infrastructure Requirements

	Development within the existing urban area	**New neighbourhood Bournes Green (Land North of Southend)**
Infrastructure	**Infrastructure Item**	**Infrastructure Item**
Transport, Highways	Strategic highway improvements and junction capacity enhancements.	Highway mitigation package including A127, A1159, Eastern Avenue and local junction improvements
	Strategic walking and cycling infrastructure and active travel enhancements.	Increased capacity on the surrounding highway network, particularly on the A1159, A13, and B1017 and the wider strategic network (A127, A1159, including Priory Cresent).
	Rail accessibility improvements and enhanced connections to key rail stations.	New internal road network and strategic connections.
	Highway, public transport and active travel mitigation measures identified through the emerging Transport Assessment and Pell Frischmann transport modelling.	Enhanced bus services, mobility hub, bus priority measures and supporting infrastructure.
	Public transport improvements, including bus priority measures, mobility hubs and integrated, ticketing infrastructure.	Improvements to rail station facilities, and improved public transport connections to rail stations. Create new pedestrian and cycle connections to surrounding areas.
Community Infrastructure	New and extended community infrastructure, including community halls or hubs, library facilities, family hubs, cultural facilities, allotments and cemetery/burial provision.	New and extended community infrastructure, including community halls or hubs, library facilities, family hubs, cultural facilities, allotments and cemetery/burial provision.
Education	Approximately 1,000 additional early years and childcare (EY&C) places to be provided through extensions to existing EY&C provision or new facilities.	Approximately 450 additional early years and childcare places.

	Additional primary education infrastructure - to be provided predominantly through extensions to existing primary schools as required.	2 x 2 FE primary schools.
	Provision equivalent to a 6 form entry secondary school to be provided through extensions to existing secondary capacity	1x 6 FE secondary school. (could be delivered alongside 1 of the primary schools as an all through school)
	Additional post-16 education and training capacity.	Additional post-16 education and training capacity which does not necessarily need to be provided on site.
	Additional SEND provision, including specialist resource bases and improvements to existing facilities.	Additional SEND provision, including specialist resource bases and improvements to existing facilities.
Emergency Services	Expansion and enhancement of ambulance infrastructure, vehicles and operational facilities.	Additional resources and facilities, including response capacity, vehicle provision and hub enhancements.
	Additional police infrastructure, accommodation and operational resources.	Additional resources and facilities for Police and Fire services.
	Additional fire and rescue, infrastructure, equipment, communications technology and station modernisation.	
Health	Additional primary healthcare provision arising from growth through possible expansion, enhancement and reconfiguration of existing primary healthcare facilities. Provision of additional healthcare hub facilities where required.	Provision of site for a new purpose built primary care provision operating as a multi practice hub or an integrated health and community facility within local centre – 1,000-1,200 sqm.
Green Infrastructure	Additional publicly accessible Protected Green Space in line with national and local standards including parks, children's play space, and natural and semi-natural greenspace. Suitable Alternative Natural Greenspace (SANG) should be provided where required; on site where preferable, or alternatively off-site on existing Protected Green space.	Provision of multifunctional Green Infrastructure in line with national and local standards, including Protected Green Space formed of parks, natural and semi-natural greenspace, allotments, MUGAs, and children's play space. Suitable Alternative Natural Greenspace (SANG) should be provided where required; on site where preferable, or alternatively off-site on existing Protected Green Space.
Sports, indoor and built facilities	Improvements and expansion to the quality of existing infrastructure including additional 3G pitch provision and ancillary facilities.	New and improved sports provision including additional grass pitches, tennis and padel courts and 3G pitch provision.
Flood management including potable water	Flood management and water supply infrastructure incorporated into all emerging development proposals.	Flood management and water supply infrastructure incorporated into all emerging development proposals.
Electricity	Infrastructure to support increased electricity demand, electric vehicles and low-carbon technologies.	Infrastructure to support increased electricity demand, electric vehicles and low-carbon technologies. Potential new primary substation and network reinforcement subject to UKPN assessment.

Gas	Ongoing gas network modernisation and reinforcement where required.	Extended gas distribution infrastructure where required, subject to Cadent assessment.
Wastewater	Wastewater infrastructure upgrades delivered through Anglian Water investment and developer-funded works where required.	Wastewater management system additions and upgrades delivered through Anglian Water investment and developer-funded works where required.
Communications	Gigabit broadband, mobile connectivity and digital infrastructure improvements	Full fibre, gigabit-capable broadband and digital infrastructure delivered as part of development
Waste Management	Recycling infrastructure and service enhancements.	Recycling infrastructure and service enhancements.