

Chelmer Waterside

Development Framework

Approved October 2021

DOCUMENT SUMMARY

This document was approved by Chelmsford City Council on 12th October 2021 for use as Planning Guidance.

This document has been subject to public consultation between 19th February - 19th March 2021.

The approved document is an official Development Framework, illustrating the development parameters as set by the Chelmsford Local Plan (May 2020) to both guide and expedite delivery of high-quality new homes and place-making at Chelmer Waterside. The document is a material consideration of future masterplanning and planning applications.

This Framework supports the delivery of development in accordance with Strategic Growth Site Policy 1a 'Chelmer Waterside'. The Local Plan sets out the wider scope of planning requirements for these sites - this document is a recommendation for how the on-site requirements can be met.

Vision Statement

Chelmer Waterside will be a high-quality residential-led neighbourhood with integrated local-scale, community and water-related uses. The area will provide high-quality new homes in a sustainable city centre context, promoting walking/cycling and ease of access to local facilities.

New movement infrastructure will mean the creation of new bridge connections with consideration to wider networking, and an emphasis on enhancing water navigation. Development will make strides towards Chelmsford's objective of achieving net-zero Carbon emissions in new buildings by 2030. The area will benefit from new open spaces that provide

balance to the urban landscape and give residents and visitors alike the opportunity to socialise, relax or get active.

Set within a unique waterside environment, the regeneration will enable active use of the waterways, creating a vibrant and dynamic new quarter for the city that provides a positive long-term legacy for Chelmsford.

Starting point

The majority of Chelmer Waterside is owned by Chelmsford City Council across multiple land parcels, with other land parcels in private ownership.

It is critical to achieving the Council's Strategic Objectives, requirements of the adopted Chelmsford Local Plan (May 2020) and Vision of this Framework Document that the regeneration is designed and delivered comprehensively. Chelmer Waterside is a singular development area across which infrastructure needs and inter-dependencies have been considered. As such, development obligations will be sought across each parcel to fairly and reasonably spread the cost of wholesale infrastructure delivery which is necessary both to facilitate development as a whole and contribute to successful place-making across all of Chelmer Waterside. Sites CW1a-f as identified through the adopted Chelmsford Local Plan (May 2020) (also shown on page 2 of this document) provide the distinct phases of development. These represent the size of parcel to be brought forward as a comprehensive phase of development so that each phase makes the most efficient use of the land, delivers high-quality place-making and has adequate quantum to deliver local infrastructure in a timely manner and as an integral part of the development.

Piecemeal development within those parcels will be resisted to avoid compromising the capacity potential, quality and infrastructure delivery of the parcel and maintain the overall success of the Chelmer Waterside regeneration.



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1 INTRODUCTION

The Council's Strategic Objectives

The “Our Chelmsford, Our Plan” document outlines the Council's Strategic Objectives. It is expected that those objectives are reflected in all new development growth delivered through the Chelmsford Local Plan (May 2020). For Chelmer Waterside, the key objectives are:

Fairer and inclusive Chelmsford:

- Prioritise use of the sustainable travel network so far as possible/enhance infrastructure
- Use environmentally efficient construction – significantly reduced carbon emissions
- New housing – suitable range of size and type (appropriate to area)
- Deliver homes to rent and own
- Deliver Affordable Housing
- Create housing that facilitates adaptable living
- Provide wheelchair housing

Safer and greener place:

- Protect and enhance the natural environment
- Implement measures to improve green infrastructure and increase biodiversity
- Create high quality of public spaces that are functional and attractive
- Reduce waste, lower energy consumption and improve air quality
- Create safe environments for everyone

Healthy, active and enjoyable lives:

- Provide community uses which bring residents and the wider community together
- Provide access to leisure and sport facilities
- Facilitate and encourage local cultural activities as part of everyday life

Connected Chelmsford:

- Provide high-quality communications infrastructure
- Secure investment to forward fund local infrastructure to support development growth
- Deliver growth in consultation with local residents and groups



Allocated sites within Chelmer Waterside



2. SITE AND CONTEXT

The Chelmer Waterside sites are integral to the wider urban landscape of Chelmsford City Centre.

The area to the immediate east consists of water meadows and gives way to the rural area beyond – this area is one of the three Green Wedges interfacing with Chelmsford City Centre.

The Chelmer Waterside sites are already generally well connected to the wider area and benefit from easy access to local places of interest and transport nodes.

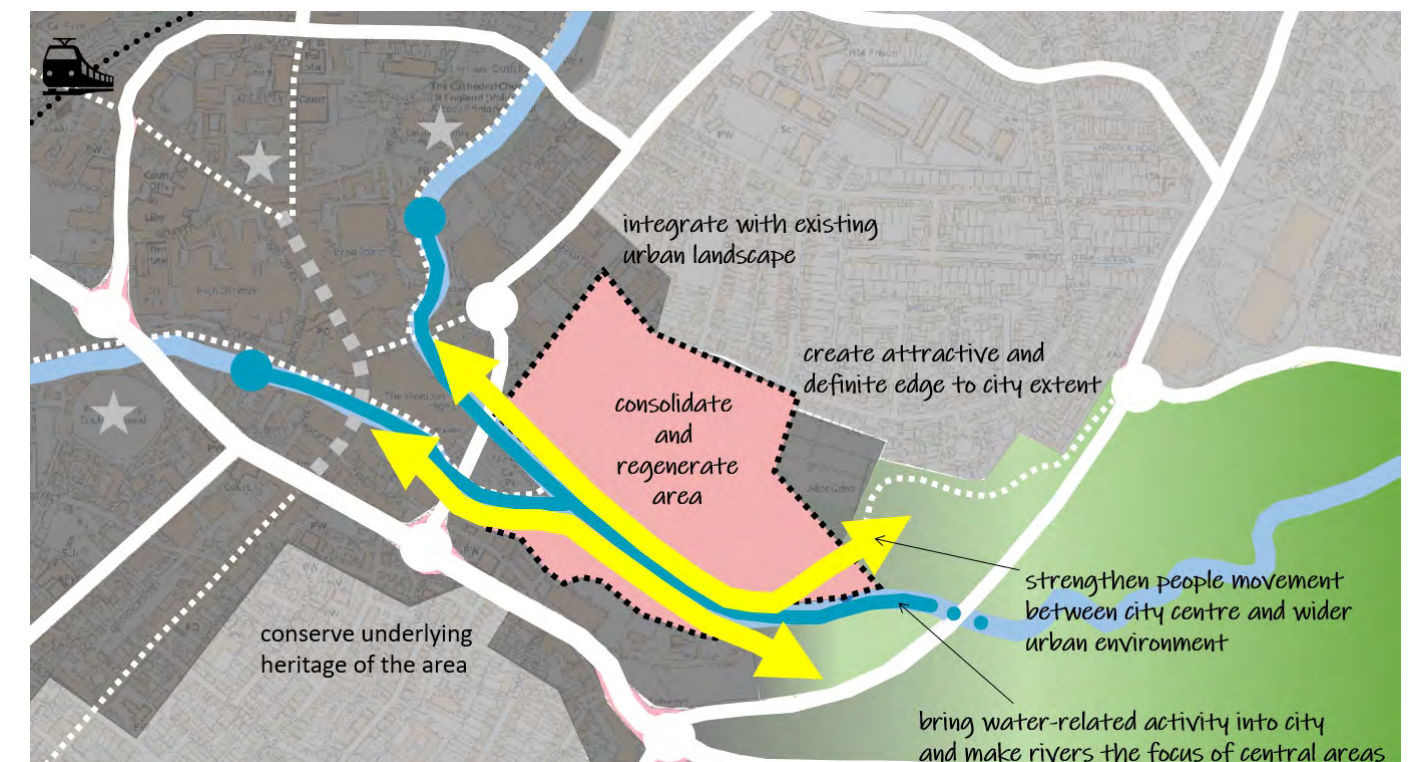
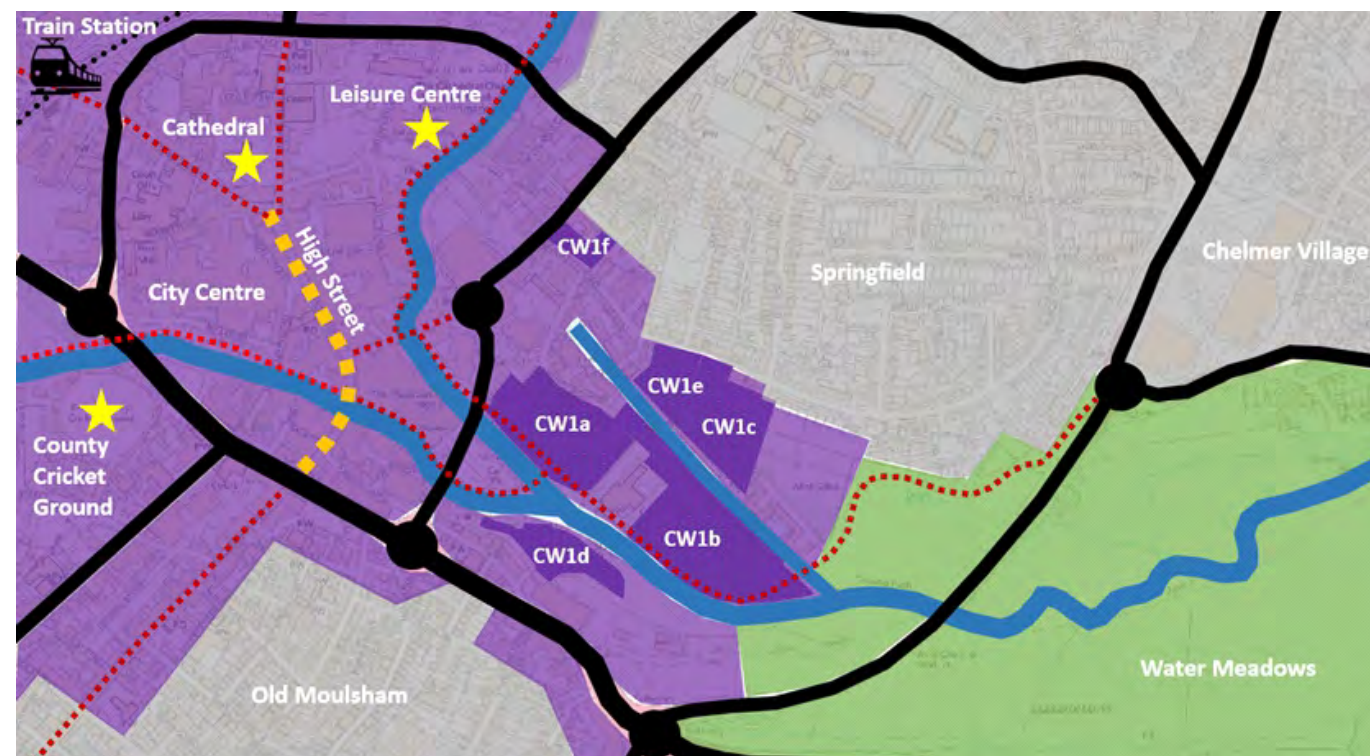
The waterways are an important part of Chelmsford's heritage, yet navigation along those waterways is constrained.

The allocation of these Chelmer Waterside sites through the Local Plan provides a platform for regeneration and the opportunity to consolidate the area into one 'place'.

This framework demonstrates how those sites can be delivered as 'one place'. Sustainable forms of travel (i.e. walking and cycling) will be put first and this area will be part of a more attractive, safer route for people movement between city centre and the wider urban and rural environment.

Opening up the waterways for active use is a key objective of bringing this area forward for development.

This development demonstrates design principles for successful integration of different landscape attributes and manages the need to safeguard heritage values.



Site Situation and Land Uses

The area of Chelmer Waterside is made up of various land parcels (collectively referred to as “the site”) set within a context of city centre uses. The principle of residential use of the site is compatible with local land uses, but there are areas where adjacent land uses are more likely to give rise to environmental considerations, for example remaining infrastructure related to the gas network and elevated High Bridge Road. The site is situated within convenient and accessible walking distance of Chelmsford Bus and Rail Stations (circa 1000m) and Chelmsford City Centre (circa. 475m). Three stretches of water separate the land forms and provide water frontage: the River Can, River Chelmer and the Chelmer and Blackwater Navigation canal terminating at Springfield Basin.

Surrounding context:

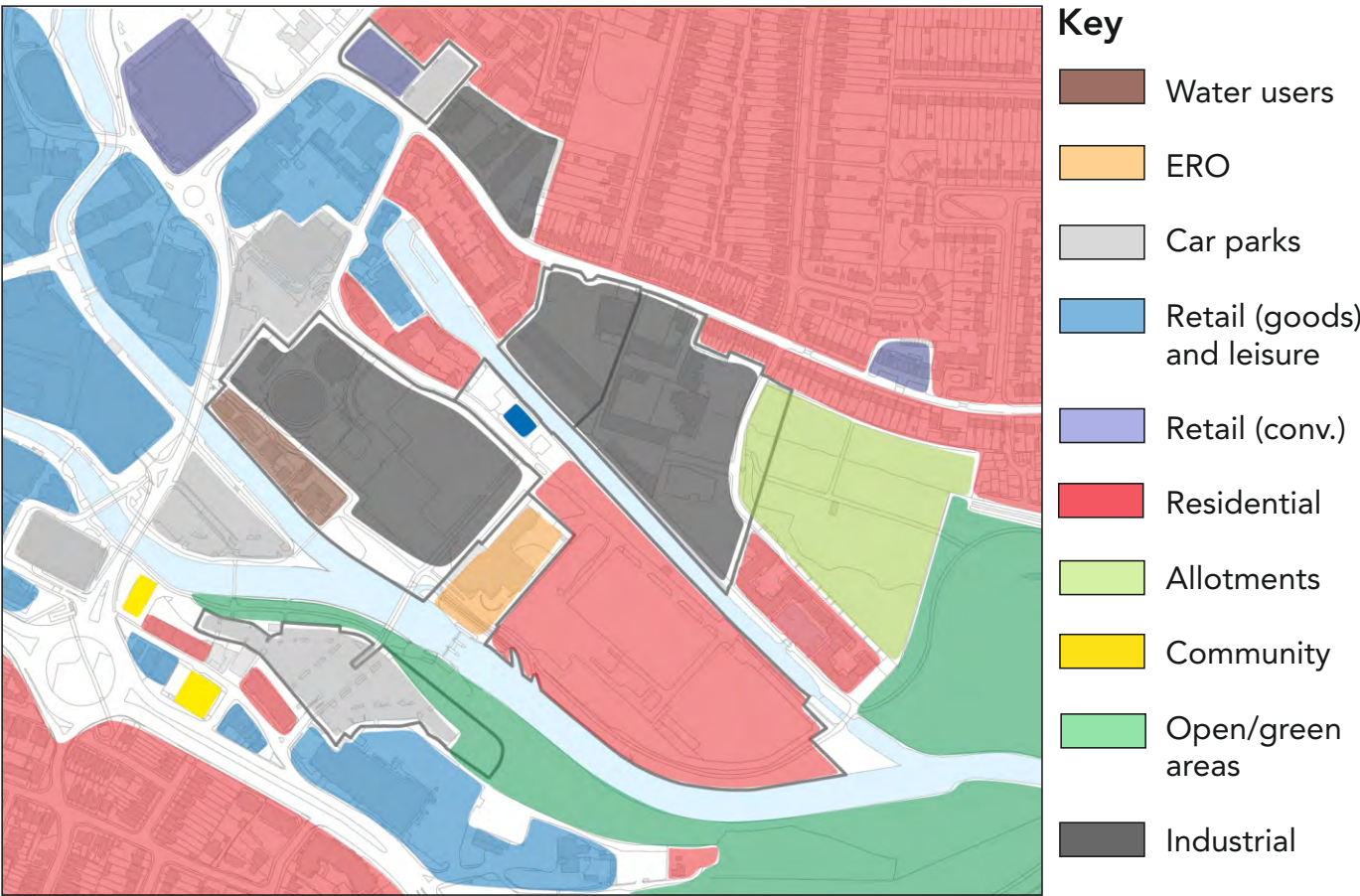
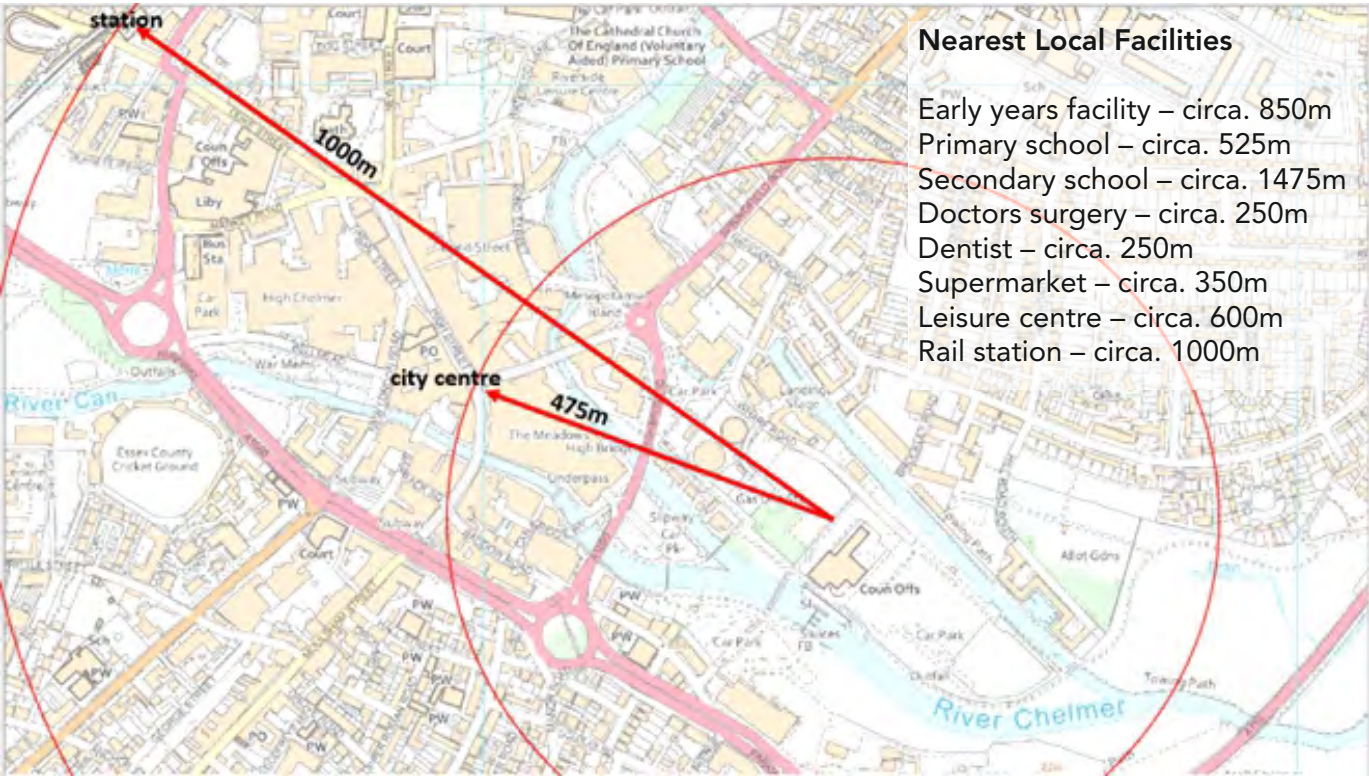
- NORTH:

Navigation Road and surroundings are predominantly residential areas with some commercial uses towards the top end towards Springfield Road and along Wharf Road. A local neighbourhood centre is situated circa. 350m away in Navigation Road.
- EAST:

The watermeadows are a key environmental consideration of Chelmer Waterside, forming functional floodplain, and also Green Wedge, designated open space and Local Wildlife Site. Also to the east is a Council-owned allotment.
- SOUTH:

Moulsham Mill, a former grain mill once connected to the river system, is now a craft and business centre. Situated around that iconic Chelmsford building are a collection of retail-orientated commercial uses including a supermarket.
- WEST:

Chelmsford City Centre is directly neighbouring the site with High Street accessible via Springfield Road or Meadows Shopping Centre. High Bridge Road is an elevated road spanning between Odeon and Springfield Road roundabouts. A supermarket is located at the southern end of Springfield Road.



Framework Considerations:

Residential use is compatible with surroundings

Potential impacts of remaining gas infrastructure and High Bridge Road on residential use would need to be mitigated

Ensure convenient movement corridors and connections into wider foot and cycle network to promote sustainable modes of travel between the site and local facilities

Landscape and Visual Impact

This site is within Chelmsford City Centre which is part of the wider Urban Area of Chelmsford. The landscape character of the site itself is therefore urbanised with mixed building typologies at its edges. The characteristics of the urban areas around this site are described throughout the Site and Context section of this masterplan document. The nearest and most relevant alternative landscape character from which longer-range views into the city will be affected is the adjacent watermeadows which form part of the wider river valley. The river valleys are designated as Green Wedges to preserve their openness, natural attributes and recreation function.

BRAINTREE, BRENTWOOD, CHELMSFORD, MALDON AND UTTLESFORD LANDSCAPE CHARACTER ASSESSMENTS (2006)

The Lower Chelmer River Valley has the following characteristics:

- Shallow, open valley with wide floodplain
- Predominantly arable farmland on the valley slopes
- Overall strong sense of place and tranquillity
- Extensive linear Poplar and Willow plantations are a distinctive feature in close proximity to the river
- Field margins marked with hedgerows and frequent trees
- Views along the valley floor can be panoramic where unconstrained by field margins and are framed along the river corridor












Framework Considerations:

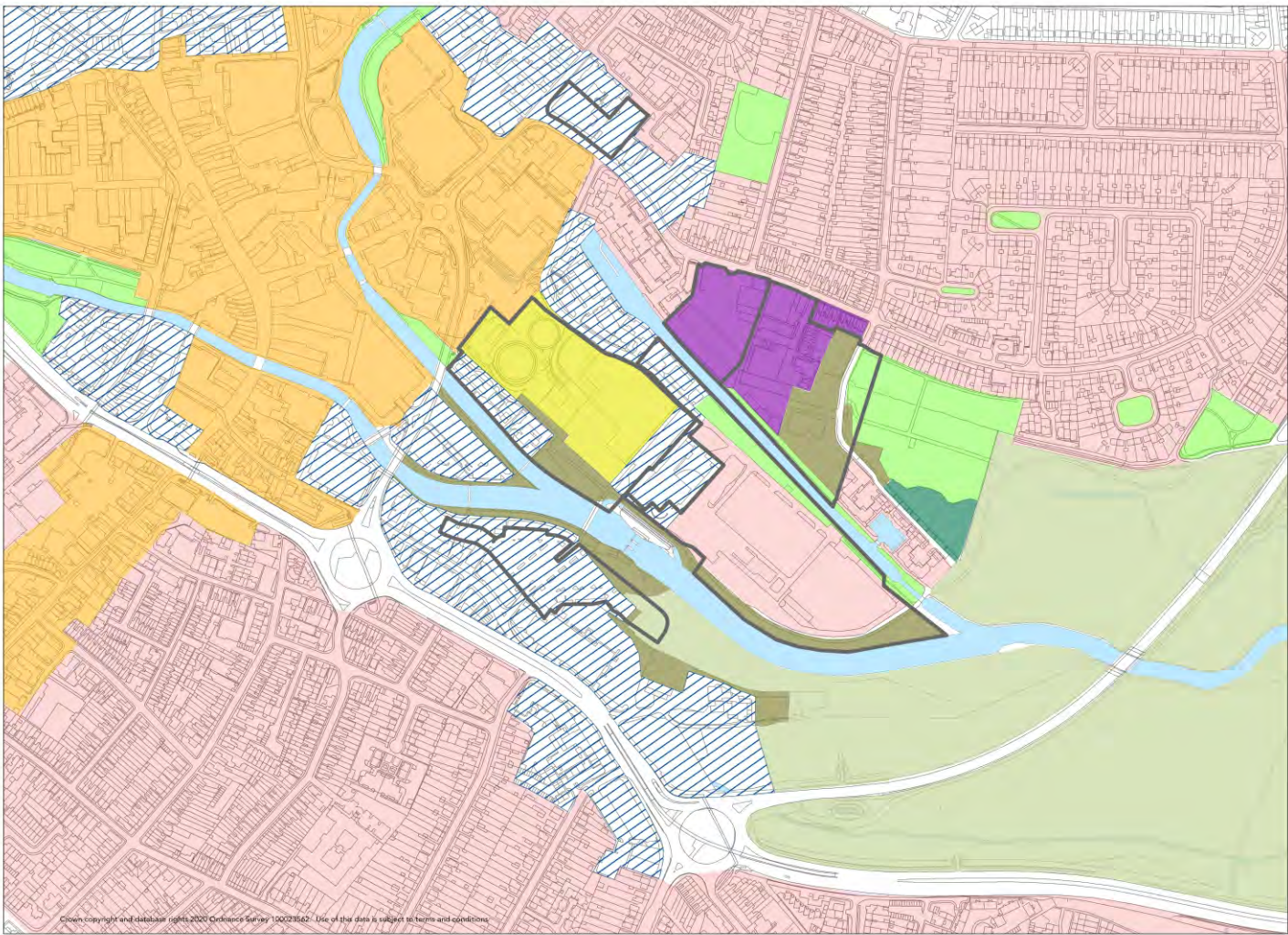
Tall buildings would be visible from the river valley so should be set at a commensurate or lower height when compared to the Taylor Wimpey development at the head of the peninsula which has been designed to successfully meet this view path

Increase linear planting adjacent to the water with a transition to urban character as appropriate

Avoid land uses which would significantly adversely impact the tranquillity of the river valley

KEY

	Allocation boundary		Open meadow marshland
	Open land with boundary wall		Scrub (dense / continuous)
	Central retail zone		Cultivated land / Parkland
	Residential		Broadleaf woodland
	Industrial		Water course / Riparian corridor
	Other urban uses		



Conservation

The area has a strong historic association with the waterways routing through the city and the river corridors are a key conservation attribute. In part this is recognised by the designated area of the Chelmer and Blackwater Navigation Conservation Area – this extends into the neighbouring Authority area (Maldon) marking the entirety of that former trade route from Heybridge Basin which dates back to 1797. The Chelmer and Blackwater Navigation Conservation Area Character Appraisal (March 2009) charts the heritage of the area but also acknowledges the expectation of new development in this area of the city.

There are several designated heritage assets (otherwise known as statutory listed buildings) situated locally including Moulsham Mill, Meadow View, and Springfield lock and bridge. Together, the area contains many non-designated heritage assets which are an important part of the historic fabric of Chelmsford, but are not statutory listed. These include Springfield Basin, the former warehouse section of Waterfront Place and the dismantled wrought iron gas holder frame. A planning obligation requires the holder frame to be re-purposed as part of the redevelopment of this area.

The site's association with Moulsham Mill is significant. This iconic water-related building contributes to the site's identity and greatly contributes to local interpretation. Whilst situated outside of the site, Moulsham Mill must remain a relevant and integral feature of development in this area.

One of the existing bridges crossing the river Chelmer is a Second World War surplus Bailey bridge. These were pre-fabricated truss bridges, mass-produced for use during military campaigns of WWII. Several thousand bridges were created and many more remained unused by the end of the war. After the war many of these bridges were sold and used as cost-effective temporary bridge solutions. Over time, as is the intention here, these temporary bridges have been replaced with newer bridges. Re-use of the Bailey bridge outside of this area can be explored.

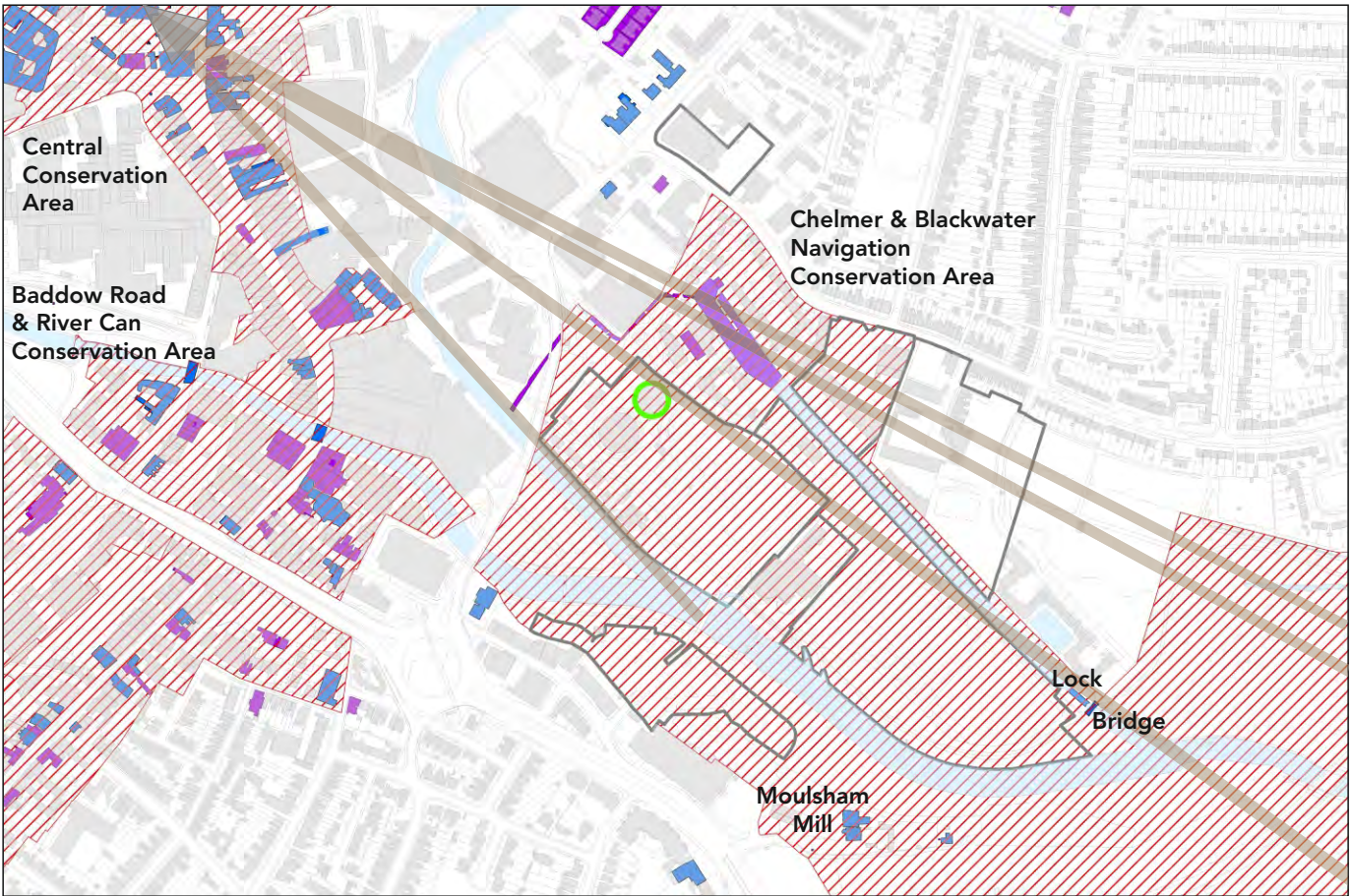
From the elevated portion of Chelmer Road (A138) there are views over the site to the Cathedral, in large part framed or filtered by vegetation and other landscape features in the foreground. These views are set within a skyline context of the city and wider urban landscape so are not key or gateway views, but are important in the context of understanding the geography and cultural heritage of the city.










Gas holder frame intact



Dismantled gas holder frame in storage



KEY

	Statutory Listed Buildings		Brick culvert (underground) locally listed
	Locally Listed Buildings		Canal basin wall - locally listed
	Conservation Area		View to Cathedral
	Holder frame (dismantled - held in storage on the gasworks site)		

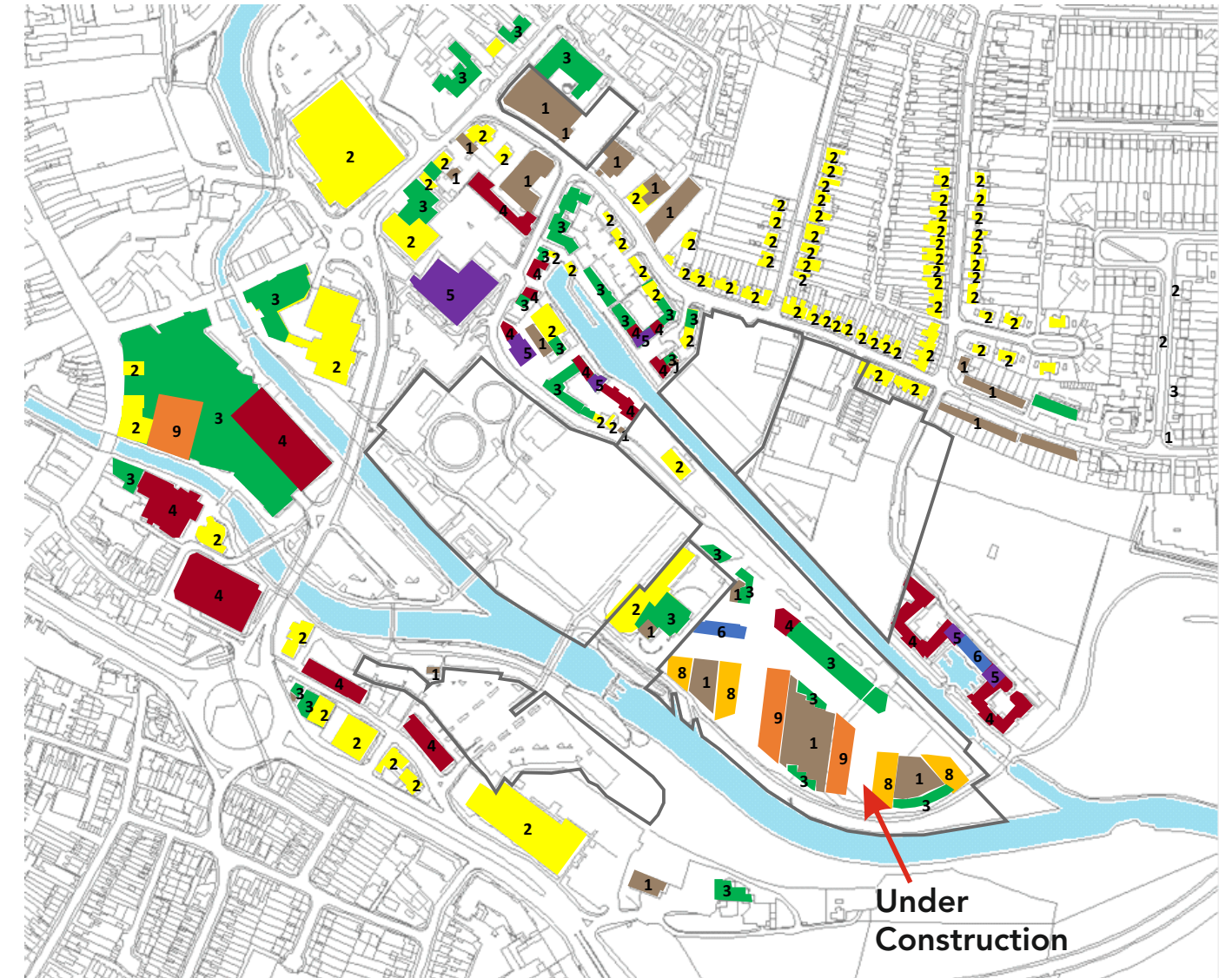
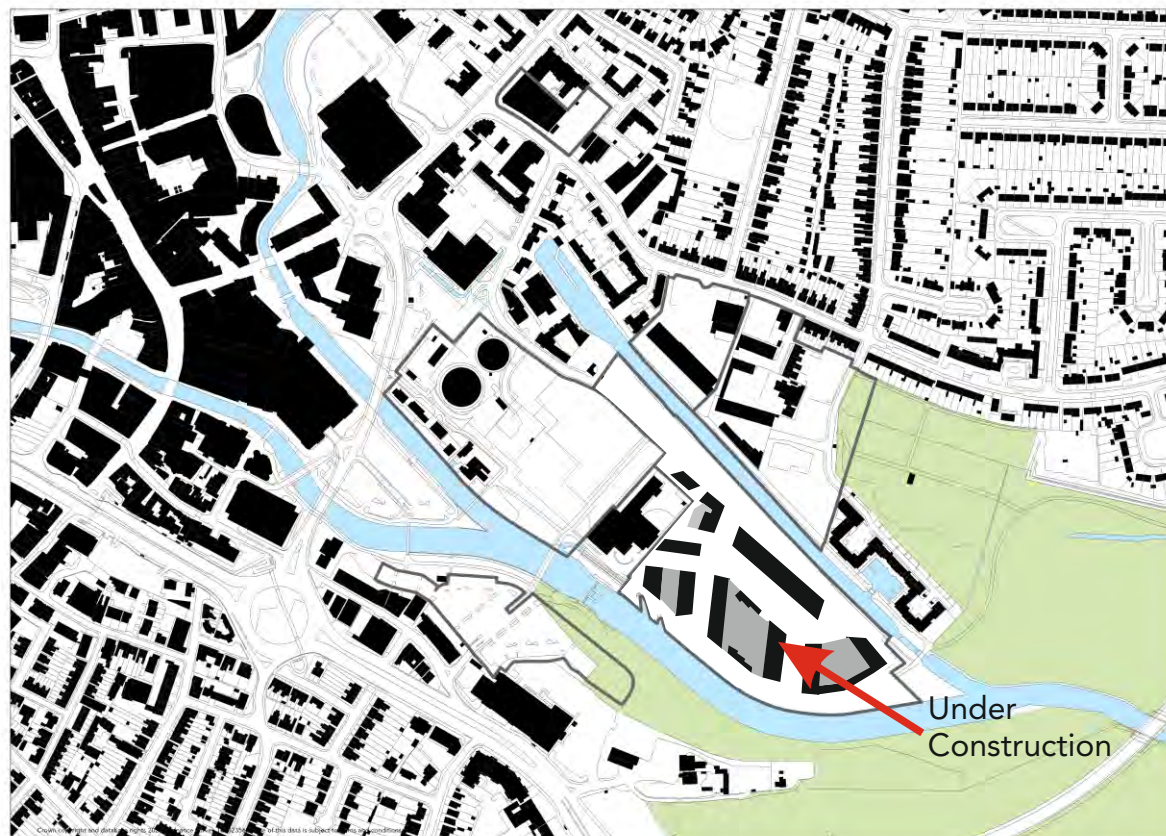
Framework Considerations:

- Provide legible and well framed viewpath(s) to Moulsham Mill to highlight the significance of that building to the area
- Be mindful of views to the Cathedral and seek to maintain views where possible
- Preserve and enhance designated and non-designated heritage assets and their setting
- Identify options for re-purposing the wrought iron gas holder frame in a public setting

Grain and Scale

Between eastern and western extents of the site the neighbouring urban grain (pattern of development) varies considerably. The more domestic character of development to the east is shown in the smaller footprint of buildings and more numerous individual holdings. To the west the commercial nature of the city centre is characterised by the larger footprints of buildings such as the shopping centre, supermarket and multi-storey car parks. There are numerous examples of perimeter development set with frontage to the street. Newer development (e.g. Taylor Wimpey site at the peninsula) uses linear urban block form with comfortable spacing to form streets and open areas containing parking within the main envelope. Most buildings in the area maintain a minimum 10m set back from water's edge to maintain access, although the most recent developments achieve considerably more and are more sympathetic (e.g. quality of environment, shadow casting, use of the waterways).

The scale of contextual development is again varied. To the east along Navigation Road are some single storey properties, but the area is predominantly 2 storeys in character. The earlier Lockside Marina residential scheme ranges between 4-6 storeys. The more recent Taylor Wimpey development at the Peninsula is predominantly 8-9 storeys due to its good open aspect to water and open spaces beyond. That Taylor Wimpey scheme reduces to 3 storeys near to the southern side of the canal which maintains light to the towpath on the opposite side of the water. The Essex Record Office situated to the middle of the site is 2-3 storeys. The area of Wharf Road is a mix of 2-5 storeys. Besides the 1970s tower block (Cater House) the areas to the west are mostly 2-4 storeys set around the historic High Street environs.



Framework Considerations:

Urban block forms, such as perimeter blocks with parking and amenity functions contained within, would work best given city environment (must maintain active frontage)

Development must face and suitably animate the street and water frontages

Placement of development relative to water must maintain minimum working access of 10m, but more is highly desirable

Scale should not exceed 9 storeys overall, but contextual scale will further limit more localised scale on development parcels

Movement (Land)

Due to the presence of water, access between and beyond the sites is more constrained. Connection with the wider network requires bridge connections in most instances. There are various existing bridges, but many of these are in need of replacement due to their age or constraints they impose on function, such as being too narrow to allow continuous cycling. The Grade 2 listed bridge to the east which provides foot/cycle route connection towards Chelmer Village will remain.

FOOT: The availability of pedestrian connections between the site and surroundings is very good. The issue is the quality and perceived security of those current routes, particularly where they edge onto a river corridor since those areas feel more secluded and are less well lit. On the north side of the canal is a gap in the towpath which could be restored to complete the route around the canal.

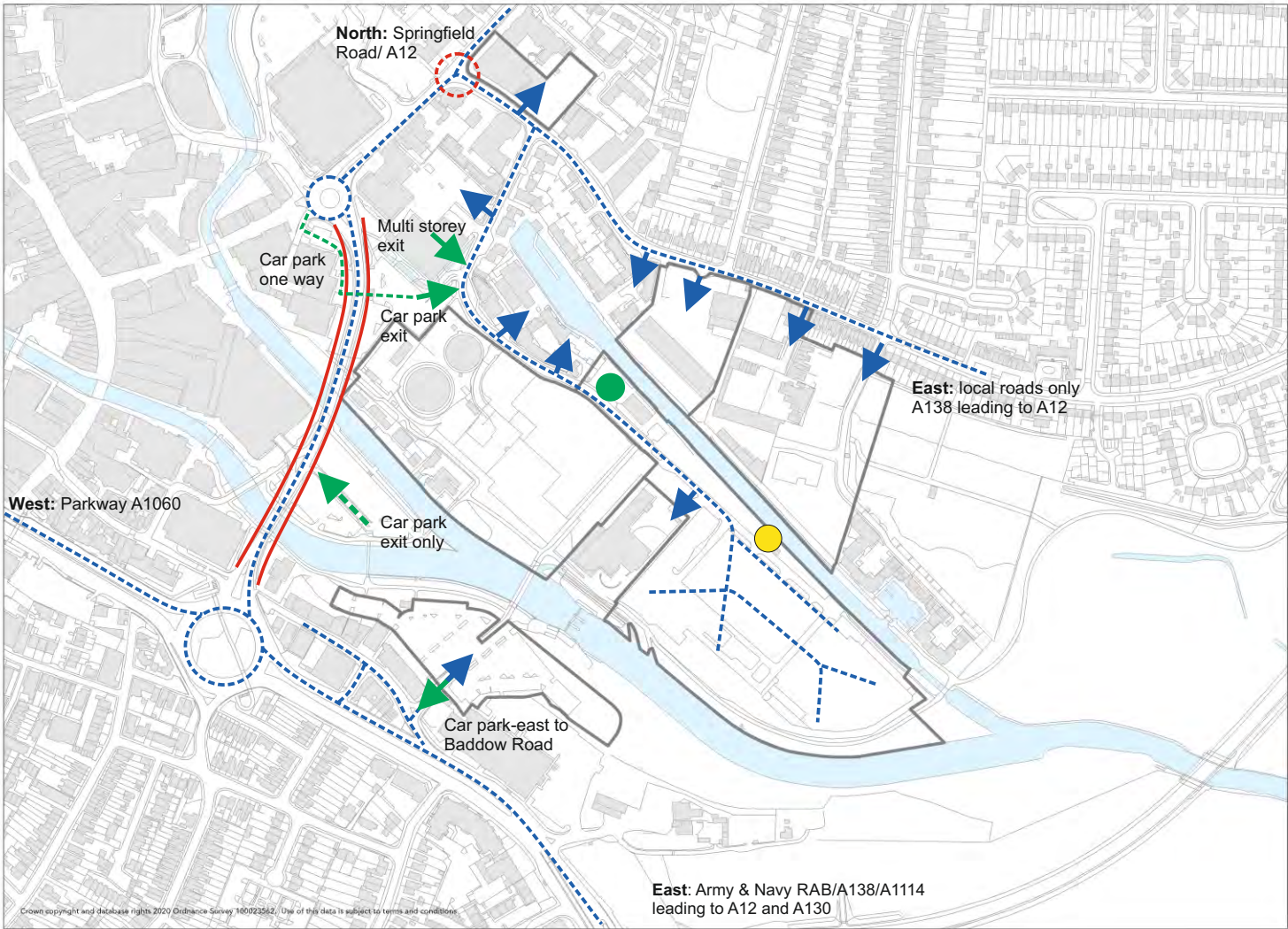
CYCLE: Likewise, the availability of cycle connections between the site and surroundings is very good. National Cycle Route 1 transects the site. The issues for cycle movement include, in addition to quality and perceived security, the need to dismount over some of the bridges, lack of connectivity to the south side of the River Chelmer to head east, and lack of connectivity north. The need for adequate drainage has also been raised. To the north opportunities for improvement are more limited. At present National Cycle Route 1 continues over the bailey bridge, which is to be replaced as part of the infrastructure provision to support this site (see page 25).

VEHICULAR: Currently, all development parcels north of the rivers are only accessible via Navigation Road which relies on one junction with Springfield Road. Although some improvements are planned for this junction, the site needs a new access to mitigate vehicular movements associated with development in full. The various car parks dotted around this part of the city centre also take access from or feed into the network around the site so masterplanning for access and circulation has to bear this in mind.

BUS: The site contains no bus stops. There are numerous bus stops within walking distance, such as along Navigation Road which provides a service to Broomfield Hospital, and stops along Springfield Road and Parkway which provide service around the city centre and beyond.



Movement (Land) continued



Existing Movement: Vehicles

- Main vehicle routes
- Access
- Car park route
- Car park exit
- High Bridge Road
- Car Club
- Springfield Road/Navigation Road junction to be upgraded as part of this development, but cannot take all the traffic from Chelmer Waterside
- Navigation boat craning platform with access from Wharf Road

Framework Considerations:

- Seek to maintain existing routes in similar positions and create new routes to improve future ease of movement within and through the site
- Improve the quality of walkways and cycleways with suitable, high quality surfacing and landscaping
- Improve the safety of walkways and cycleways with new lighting, particularly along river corridors, and front buildings with active frontages towards public routes for casual surveillance
- Complete the pedestrian towpath around the canal
- Replace the narrow bridges over the River Can and River Chelmer which currently require cyclists to dismount to facilitate a continuous cycle route as part of National Cycle Route 1
- Facilitate a cycle connection to the east by maximising opportunities to connect into the site network
- Provide a new vehicular access into the site from the main network to reduce reliance on the Navigation Road/Springfield Road junction

Movement (water)

It is possible to navigate from Heybridge Basin to Chelmsford along 14 miles of waterway bringing you into Chelmer Waterside from the east. This means it is already possible to reach some parts of the city centre such as Springfield Basin. Paper Mill Lock in Little Baddow, a popular boaters pit stop because of its tea room and picturesque setting, is situated along this route. As the Navigation arrives in Chelmsford it is met with various obstructions which mean a continuation of journey, and thus better animation of waterways in Chelmsford City Centre, is not currently possible.

The sluice gates south of Essex Record Office maintain the water level in the city's river network and release water to the watermeadows in times of flooding, but the sluice gates also block movement along the river. The sluice gates will need repair/replacement in the future, which means there is an opportunity to consider integration of a new lock system. The boat rollers adjacent Essex Record Office allow small craft such as canoes to manoeuvre around the sluice gates, but this is far from ideal and in any event the boat rollers are already in a state of disrepair.

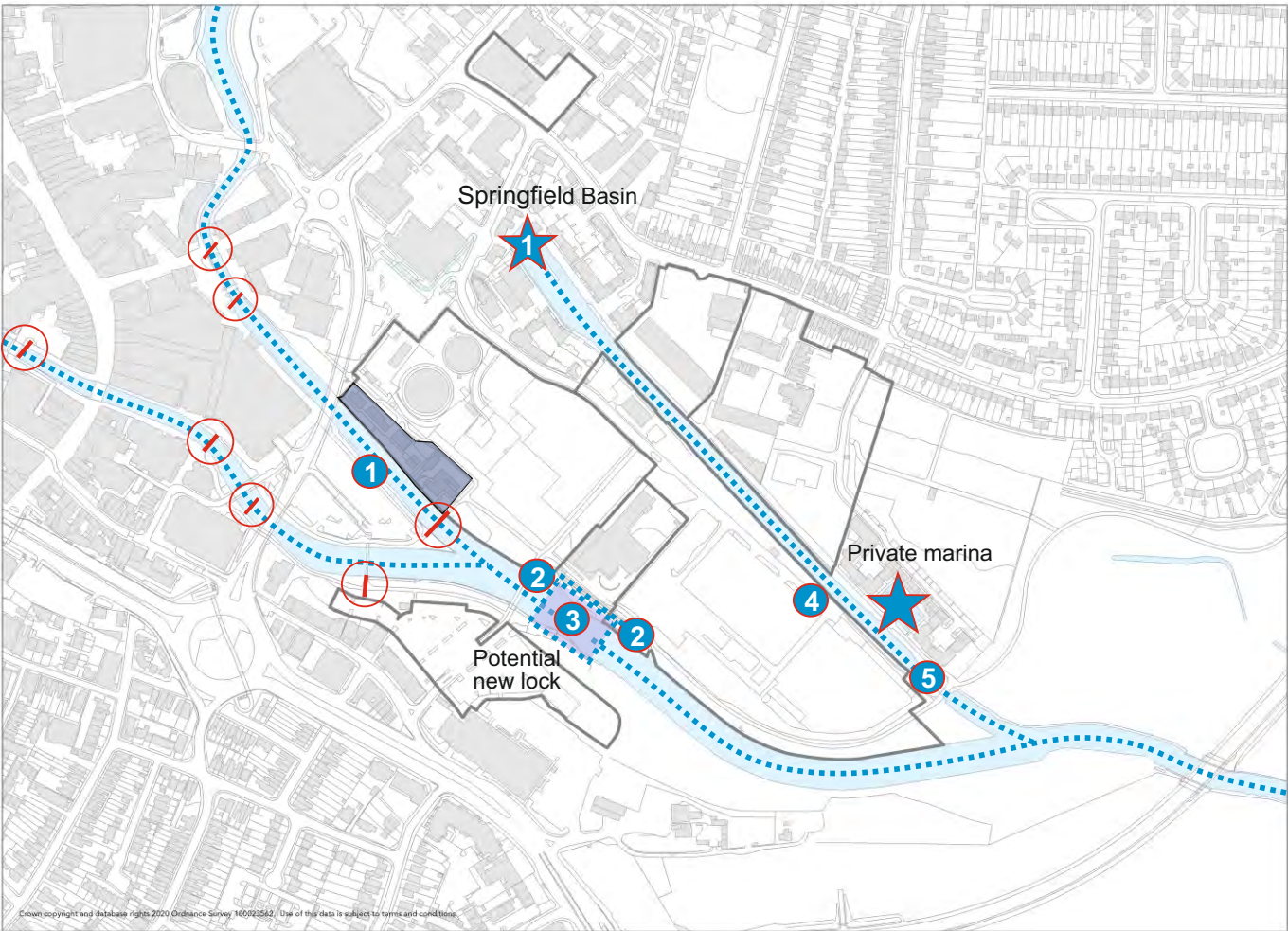
There are numerous existing bridges which, for reason of their more limited height above the water, would also prevent further navigation into Chelmsford City Centre from the east for

most craft. Their replacement with taller structures to achieve adequate clearance for canal boats is desirable. It is important that any new structures do not further decrease navigation potential.

There are two existing water-user clubs situated within the site in buildings which would not fit with the area's regeneration. These are occupied by Chelmsford Canoe Club and Chelmsford Sea Cadets. These clubs will need to maintain suitable access to the water together with boat storage, clubhouse facilities, etc. but these uses must not fully divorce the public route from the waterway as it does currently although practical access to the water for these clubs would still be needed.

Essex Waterways Limited has in recent years increased the number of mooring opportunities for recreational, business and residential craft along the stretch of the canal leading up to Springfield Basin, which has started to increase use along that stretch of the navigation.

There are a handful of existing access points to the water which will need to be maintained. It is desirable to improve access to the water to encourage greater use and activity. There may also be opportunities to increase water at the expense of land to create a focal point for developments and increase the interaction with water functions.



Key

- Existing bridges with low headroom – constrain navigation
- Existing water users
- 1 Small landing platform
- 2 Small craft water access and boat rollers
- 3 Sluice gates – block navigation
- 4 Boat craning point
- 5 Lock provides connection with canal spur

Framework Considerations:

- Explore opportunities for increasing water as part of development
- Continue Council's own work investigating the design and delivery of a new lock at the sluice gates to provide extension to navigable waterway
- Replace existing bridges within Chelmer Waterside with taller structures which achieve suitable clearance to water to extend navigable waterway
- Provide suitable alternative facilities and access to the water for existing water users and encourage further community and commercial usage
- Maintain current access points to water and increase opportunities to access the water – suitable land access required
- Increase the potential for moorings

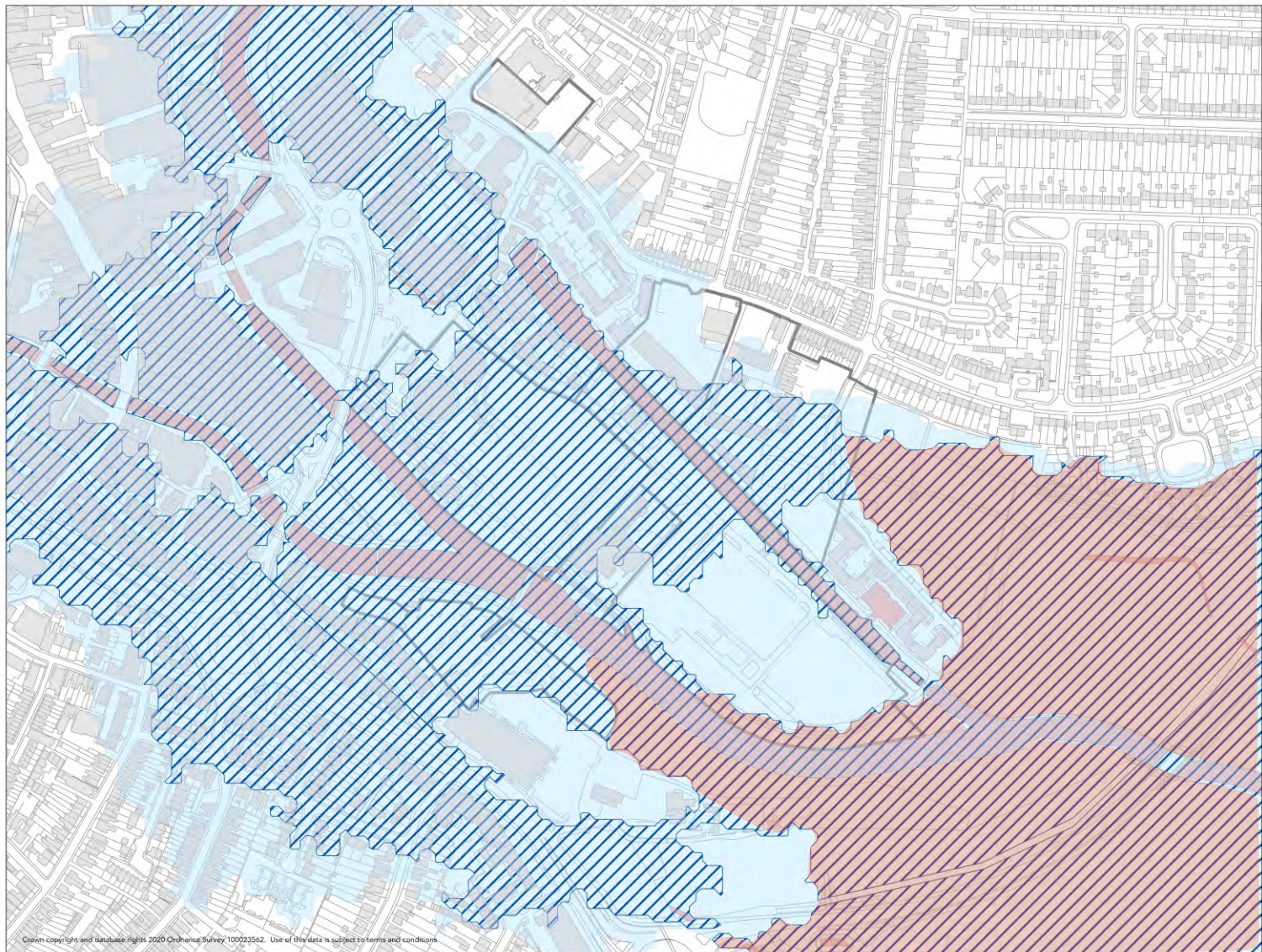
Flooding

The proximity of the site to rivers means there is a greater probability of flood events affecting future development. Land is classified by the Environment Agency in terms of flood risk – categories range from Zone 1 – low risk, Zone 2 – medium risk, to Zone 3 – high risk. Further analysis is then undertaken as part of the evidence base production for the Local Plan to identify what land should be left undeveloped to contribute to flood capacity – these areas are categorised Zone 3b and are typically areas of land with an annual probability of flooding greater than 1 in 20 (5%), and what areas are categorised Zone 3a where development could be allowed subject to exception testing. This site has been through both sequential and exception tests as part of the Strategic Flood Risk Assessment produced as evidence base for the Local Plan and can support housing development on Zones 2 and 3a subject to site-specific consideration of flood defence, attenuation and compensation. Any development in Zone 3b must be limited to water compatible functions, for example development related to water-based activities, outdoor recreation areas, etc.

It is likely that land within and related to the site will need to be engineered to flood to greater capacity (likely to mean to greater depth) to compensate for the footprint of development on the site which would have the effect of displacing flood waters. Wherever possible these areas should be designed to give high value public function and contribute to visual aesthetic of the area during times when they are not subject to flooding.

Operational single storey or basement development should be avoided. Buildings should be designed with flood resillience and safe means of escape.

On-site sustainable urban drainage systems (SUDS) should be used to reduced risk and frequency of surface sources of flooding.



- Key**
- Flood zone 2
 - Flood zone 3a
 - Flood zone 3b

Framework Considerations:

- For all but water compatible uses, development in Flood Zone 3b must be avoided
- Siting of open spaces within Flood Zone 3a would contribute towards flood attenuation and compensation
- Additional on-site measures and probably off-site flood attenuation and compensation measures would need to be factored into detailed layout – not possible at this stage as further site-specific analysis is needed (planning application stage works)
- Allow space for natural SUDS solutions, where feasible

Arboriculture and Ecology

Much of the higher-quality vegetation is situated along the River Chelmer margins and east within the watermeadows. Elsewhere within the site there are individual trees which may be of moderate or higher value which could be mitigated at detailed site planning stage, but in the main the site generally contains areas of lesser quality and self-seeded tree and scrub cover. This is to be expected of an active/former industrial landscape. However, all trees within a diameter of more than 7.5cm or greater than 1.5m in height within the site are afforded an equivalent level of protection as Tree Preservation Orders by virtue of the conservation area status of the land.

The area has importance for bird and bat nesting, commuting and foraging – these species primarily rely on presence of good size trees and tree corridors, which would follow the river corridors, but the open grassland to the east is important for species such as Lapwing which are listed as a priority species. To the east of the site, the Lower Chelmer River Valley contains running water, wetland, grassland and semi-natural woodland habitats and four areas of ancient woodland. Owing to their mobile nature, grass snakes may be present periodically on








a site such as this and otters are also considered to be of local ecological interest.

Local Wildlife Site Ch87: Chelmsford Water Meadows (52.69ha) – mixture of dry grassland and wet marshland grasses with marginal species and reeds. Forms part of an important chain of wildlife habitats along the Chelmer.

All new development is expected to generate net biodiversity gain of at least 10%. Development must also minimise the risk of human disturbance on local and regional wildlife areas outside of the site. Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy (Essex RAMS) is a long-term strategy to lessen the impact of local housing development on protected birds and habitat along the Essex coast, which is a consideration to be undertaken in accordance with the Conservation of Habitats and Species Regulations 2017. This site is within the zone of influence of the Blackwater Estuary. To avoid disturbance from recreational activities new development must provide suitable on-site recreational facilities to firstly avoid demand generation at source as well as contribute to defence of the coastal areas themselves.

Key

	Allotments
	Trees/shrubs/hedges
	Hard ground with self seeded scrub (low quality)
	Water meadow
	Cultivated grassland

Framework Considerations:

- Manage extent of development at the allotment site and deliver more active allotment plots
- Provide a net biodiversity gain of at least 10% using Defra metric
- Limit tree removal, particularly along the river corridor
- Provide opportunity for more tree planting throughout the site
- Increase linear planting adjacent to the water suitable for birds and bats to use for nesting, commuting and foraging
- Limit incursion of development into the watermeadows to the east
- Provide suitable on-site open space provision to reduce demand for off-site recreation where natural habitat or species could be adversely impacted

Utility constraints

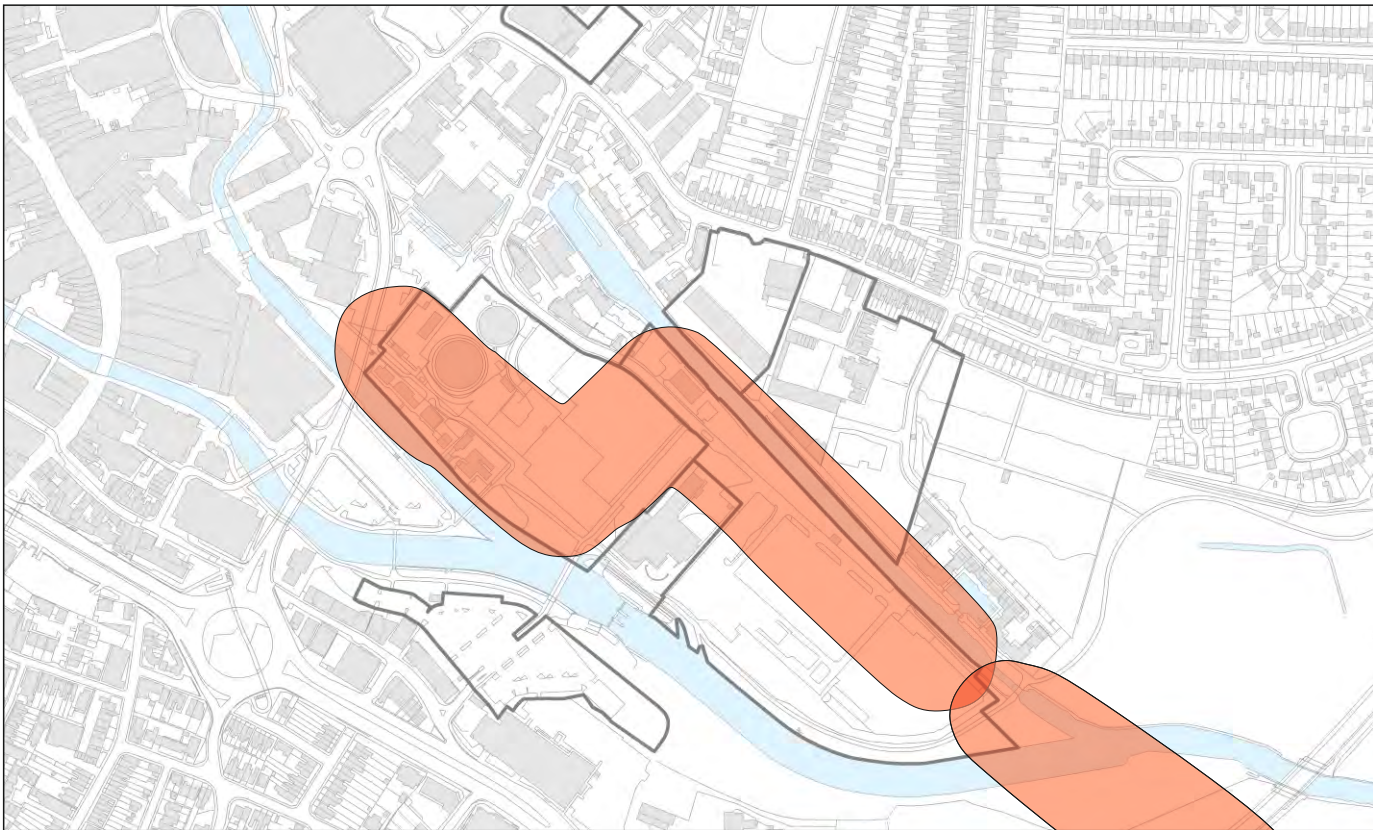
HIGH-PRESSURE GAS

There are three high-pressure gas pipelines (HSE pipeline references 1810, 1812 and 1813) which have an influence over development on the site – these come into the site from the east and are part of the transmission network. Pipelines 1810 and 1813 come into the site from the east (under the watermeadows) where they combine near to the listed lock to become pipeline 1812 which continues west and connects into the gas pressure reduction compound to the western end of the site. High-pressure gas pipelines benefit from various levels of site planning protection set by both the pipeline operator and the Health and Safety Executive (HSE). The HSE's Planning Advice for Developments near Hazardous Installations (PADHI) sets zones (Inner, Middle and Outer) around the pipeline or installation to limit the risk of building too close to hazardous infrastructure. Consequentially, the image below shows the extent of the site which could not be developed for housing without an alternative high-pressure gas pipeline solution being put in place.

The same protocols are in place for hazardous gas infrastructure, which includes the gas pressure reduction system (GPRS) situated at the western end of the site. This is factored into the image below.

OTHER GAS

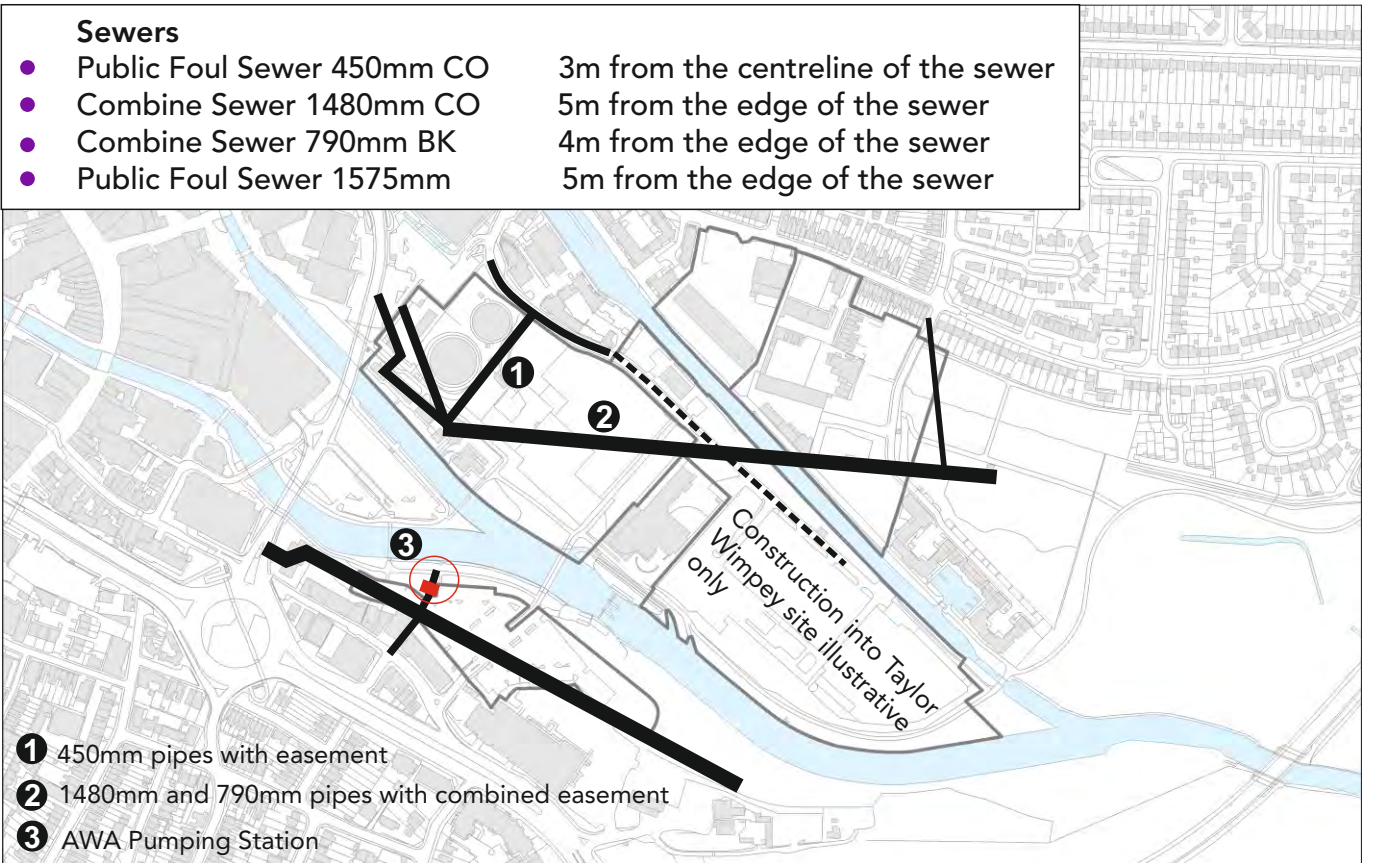
Various other gas pipeline infrastructure is present on the site (not shown). Where it is not feasible to build over, this may need diversion as part of development. This will not be factored this Framework.



The two gasometers (gas holders) shown on OS base mapping have since been removed.

SEWERS

There are two wider-diameter sewer pipes transecting the site, one south of the River Can and one between the River Chelmer and the canal. Both sewer pipes have maintenance easements preventing new buildings within those areas. There are other smaller-diameter sewer pipelines which would need diversion or other treatment to allow development over.



Framework Considerations:

Ensure development avoids known easements and other areas of restriction such as those imposed by the Health and Safety Executive (PADHI)

Remove the gas pressure reduction system (GPRS) from its current position and reinstate to the east (on Council allotments) to allow all high pressure gas pipelines to be redirected to that new GPRS and allow for removal of all high pressure gas pipelines from Chelmer Waterside peninsula

SUMMARY OF FRAMEWORK CONSIDERATIONS

SITE SITUATION AND LAND USES

Residential use is compatible with surroundings

Potential impacts of remaining infrastructure relating to the gas network and High Bridge Road on residential use would need to be mitigated

Ensure convenient movement corridors and connections into wider foot and cycle network to promote sustainable modes of travel

CONSERVATION

Provide legible and well framed viewpath(s) to Moulsham Mill to highlight the significance of that building to the area

Be mindful of views to the Cathedral and seek to maintain views where possible

Preserve and enhance designated and non-designated heritage assets and their setting

Identify options for re-purposing the wrought iron gas holder frame in a public setting

LANDSCAPE AND VISUAL IMPACT

Tall buildings would be visible from the river valley so should be set at a commensurate or lower height when compared to the Taylor Wimpey development at the head of the peninsula which has been designed to successfully meet this view path

Increase linear planting adjacent to the water with a transition to urban character as appropriate

Avoid land uses which would significantly adversely impact the tranquillity of the river valley

GRAIN AND SCALE

Urban block forms, such as perimeter blocks with parking and amenity functions contained within, would work best given city environment (must maintain active frontage)

Development must face and suitably animate the street and water frontages

Placement of development relative to water must maintain minimum working access of 10m, but more is highly desirable

Scale should not exceed 9 storeys overall, but contextual scale will further limit more localised scale on development parcels

FLOODING

For all but water compatible uses, development in Flood Zone 3b must be avoided

Siting of open spaces within Flood Zone 3a would contribute towards flood attenuation and compensation

Additional on-site measures and probably off-site flood attenuation and compensation measures would need to be factored into detailed layout – not possible at this stage as further site-specific analysis is needed (planning application stage works)

Allow space for natural SUDS solutions, where feasible

MOVEMENT (LAND)

Seek to maintain existing pedestrian and cycle routes in similar positions and create new routes to improve future ease of movement within and through the site

Improve the quality of walkways and cycleways with suitable, high quality surfacing and landscaping

Improve the safety of walkways and cycleways with new lighting, particularly along river corridors, and have active building frontages facing public routes for casual surveillance

Complete the pedestrian towpath around the canal

Replace the narrow bridges over the River Can and River Chelmer which currently require cyclists to dismount to facilitate a continuous cycle route as part of National Cycle Route 1

Facilitate a cycle connection to the east by maximising opportunities to connect into the site network

Provide a new vehicular access into the site from the main network to reduce reliance on the Navigation Road/Springfield Road junction

Upgrade the Navigation Road/Springfield Road junction

MOVEMENT (WATER)

Explore opportunities for increasing water as part of development

Continue Council's own work investigating the design and delivery of a new lock at the sluice gates to provide extension to navigable waterway

Replace existing bridges within Chelmer Waterside with taller structures which achieve suitable clearance to water to extend navigable waterway

Provide suitable alternative facilities and access to the water for existing water users and encourage further community and commercial usage

Maintain current access points to water and increase opportunities to access the water – suitable land access required

Increase the potential for moorings

UTILITY CONSTRAINTS

Ensure development avoids known easements and other areas of restriction such as those imposed by the Health and Safety Executive (PADHI)

Remove the gas pressure reduction system (GPRS) from its current position and reinstate to the east (on Council allotments) to allow all high pressure gas pipelines to be redirected to that new GPRS and allow for removal of all high pressure gas pipelines from Chelmer Waterside peninsula

ARBORICULTURE AND ECOLOGY

Provide a net biodiversity gain of at least 10% using Defra metric

Manage extent of development at the allotment site and deliver more active allotment plots

Limit tree removal, particularly along the river corridor

Provide opportunity for more tree planting throughout the site

Increase linear planting adjacent to the water suitable for birds and bats to use for nesting, commuting and foraging

Limit incursion of development into the watermeadows to the east

Provide suitable on-site open space provision to reduce demand for off-site recreation where natural habitat or species could be adversely impacted

3. PLANNING POLICY

NATIONAL PLANNING POLICY

The National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG) set out the broad planning policies for the nation and how these are to be applied. Both the NPPF and PPG are subject to occasional updates. The NPPF was last updated in July 2021 and the PPG was last updated in June 2021 (at the time of this publication).

National Planning Policy Framework (NPPF – July 2021):

The NPPF provides a basis of sound planning approach, setting out the key objectives of plan-making and decision-taking.

Although not specifically referenced, frameworks are an early stage of the design and planning process. Frameworks are a design tool to aid developers in achieving high design standards as part of their development proposals. Section 12 of the NPPF titled ‘achieving well-designed places’ a paragraph 124 states “good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities.”

Paragraph 127 continues:

Planning policies and decisions should ensure that developments:

- a) will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;
- c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);
- d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;
- e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and
- f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.

Planning Practice Guidance (PPG – June 2021):

The PPG provides practical explanation of how NPPF objectives, such as achieving well-designed places, are expected to be achieved through the planning system.

Section titled ‘Design: process and tools’ at paragraph 006 states “Masterplans set the vision and implementation strategy for a development. They are distinct from local design guides by focusing on site specific proposals such as the scale and layout of development, mix of uses, transport and green infrastructure. Depending on the level of detail, the masterplan may indicate the intended arrangement of buildings, streets and the public realm.”

National Design Guide (NDG – January 2021):

In October 2019, the Ministry of Housing, Communities & Local Government published the National Design Guide. This provides a broad expectation for how to deliver well-designed places, by outlining and illustrating the Government’s priorities for well-designed places in the form of ten characteristics. The National Design Guide is based on national planning policy, practice guidance and objectives for good design as set out in the NPPF. Good design is set out in the National Design Guide under the following 10 characteristics:

- context
- identity
- built form
- movement
- nature
- public spaces
- uses
- homes and buildings
- resources
- lifespan

LOCAL PLANNING POLICY

Strategic Policy S7 – The Spatial Strategy:

States that Strategic Growth Sites will be delivered in accordance with masterplans to be approved by the Council. This Development Framework, once approved, is the basis on which future site planning would be advanced

Strategic Growth Site Policy 1a – Chelmer Waterside:

To the east of the City Centre is Chelmsford’s largest previously developed opportunity area in a river landscape setting fronting the River Chelmer and the Chelmer and Blackwater Navigation.

Amount and type of development:

Site1a comprises six sites (Cw1a to CW1f) with a potential total residential capacity of around 1,100 new homes, including affordable housing, along with an element of non-residential development. Sites at Chelmer Waterside have been assessed individually and can come forward independently, as sites become available.

SITE 1A - Chelmer Waterside Allocations	Number of homes	Main vehicular access
Cw1a Former Gas Works	Around 250*	Wharf Road
CW1b Peninsula	Around 420	Wharf Road
CW1c Lockside	Around 130	Navigation Road
CW1d Baddow Road Car Park and land to the East of the Car Park	Around 190	Baddow Road
Cw1e Travis Perkins	Around 75	Navigation Road
Cw1f Navigation Road sites	Around 35	Navigation Road

**250 is now 450 because high pressure gas equipment can be relocated*

Supporting on-site development:

- New homes of a mixed size and type, including 35% affordable housing
- Integration of flexible workspace facilities
- Improvements to Chelmer and Blackwater Navigation waterway infrastructure
- Site CW1a - Commercial interface with Primary Shopping Area and River Chelmer
- Site CW1a - Opportunity to provide new or improved premises for water-based clubs
- Site CW1d - Re-provision of public car parking.

Site development principles:

Movement and access

- Development that maximises opportunities for sustainable travel
- New or improved pedestrian and cycle connections
- Provide a new vehicular access to serve the site
- Provide an operational car club for residents and businesses within the site area and beyond.

Historic and natural environment

- Protect the setting of designated and non-designated heritage assets
- Conserve and enhance biodiversity and avoid adverse effects on the Chelmer Valley Riverside and Chelmsford Watermeadows Local Wildlife Sites
- Undertake an Archaeological Assessment.

Design and layout

- Layout which contributes towards the distinct identity of Chelmer Waterside and encourages use of the waterways and their environs
- Provide public art which contributes towards place creation
- Ensure layout maintains a generous waterside margin free of buildings to enable maintenance, waterway function and habitat connectivity, agreed on an individual site basis with the Local Planning Authority
- Ensure existing sites occupied by water users are incorporated or re-provided to support those functions and benefit the development and diversity of City Centre uses
- Layout to incorporate adequate tree planting and other green infrastructure to include natural flood risk and surface water management measures
- Maintain, enhance and create new landscaped site edges with a network of dense planting belts and buffers to mitigate the visual impact of the development, safeguard the historic environment, and provide suitable wildlife connections.

Site infrastructure requirements:

- Appropriate mitigation, compensation and enhancements to the local and strategic road network as required by the Local Highway Authority
- Sites CW1a–CW1e – Provide a new vehicular access to serve Strategic Growth Site 1a through proportionate contributions. Physical provision of the new vehicular access route shall be delivered through development of sites CW1a and/or CW1d (both currently Council-owned sites)
- Site CW1f - Safeguard land for Springfield Road junction improvement
- Appropriate measures to promote and enhance sustainable modes of transport
- Provide, or make financial contributions, to facilitate, sustain and enhance car club facilities for residents and businesses within the site
- Provide, or make financial contributions to, new or enhanced sport, leisure and recreation facilities
- Financial contributions to early years, primary and secondary education provision, and community facilities including healthcare provision
- Site CW1c – and (circa 0.13hectares) for a stand-alone early years and childcare nursery (Use Class D1).

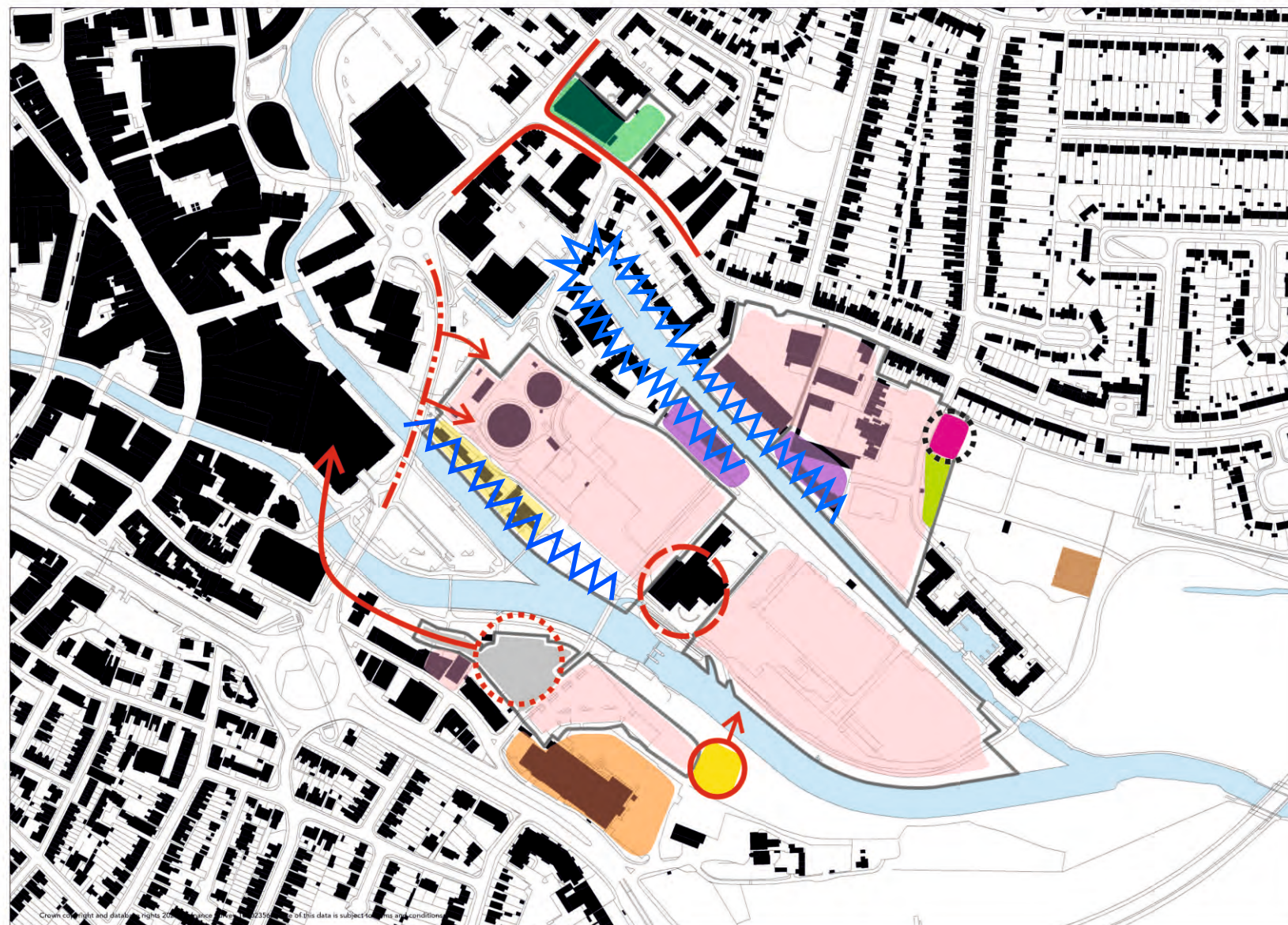
Further considerations and local initiatives include:

- Making Places SPD
- Live Well
- Secured By Design
- Habitat Regulations – including Essex Coast RAMS

4. GUIDING PRINCIPLES

Land use and Dependency

- ✓ Predominantly residential use to fulfil Local Plan expectations, with commercial frontage where feasible
- ✓ Opportunity to place community and commercial uses in accessible locations to serve the neighbourhood and relate to local features
- ✓ Use commercial and other river-related uses to animate the water and create high-quality public environment along the river corridors – this must not detach inland development from the water
- ✓ Some public car parking to remain to balance out wider local needs
- ✓ Location of early-years facility could help to mitigate sensitive relationship to lower-scale properties

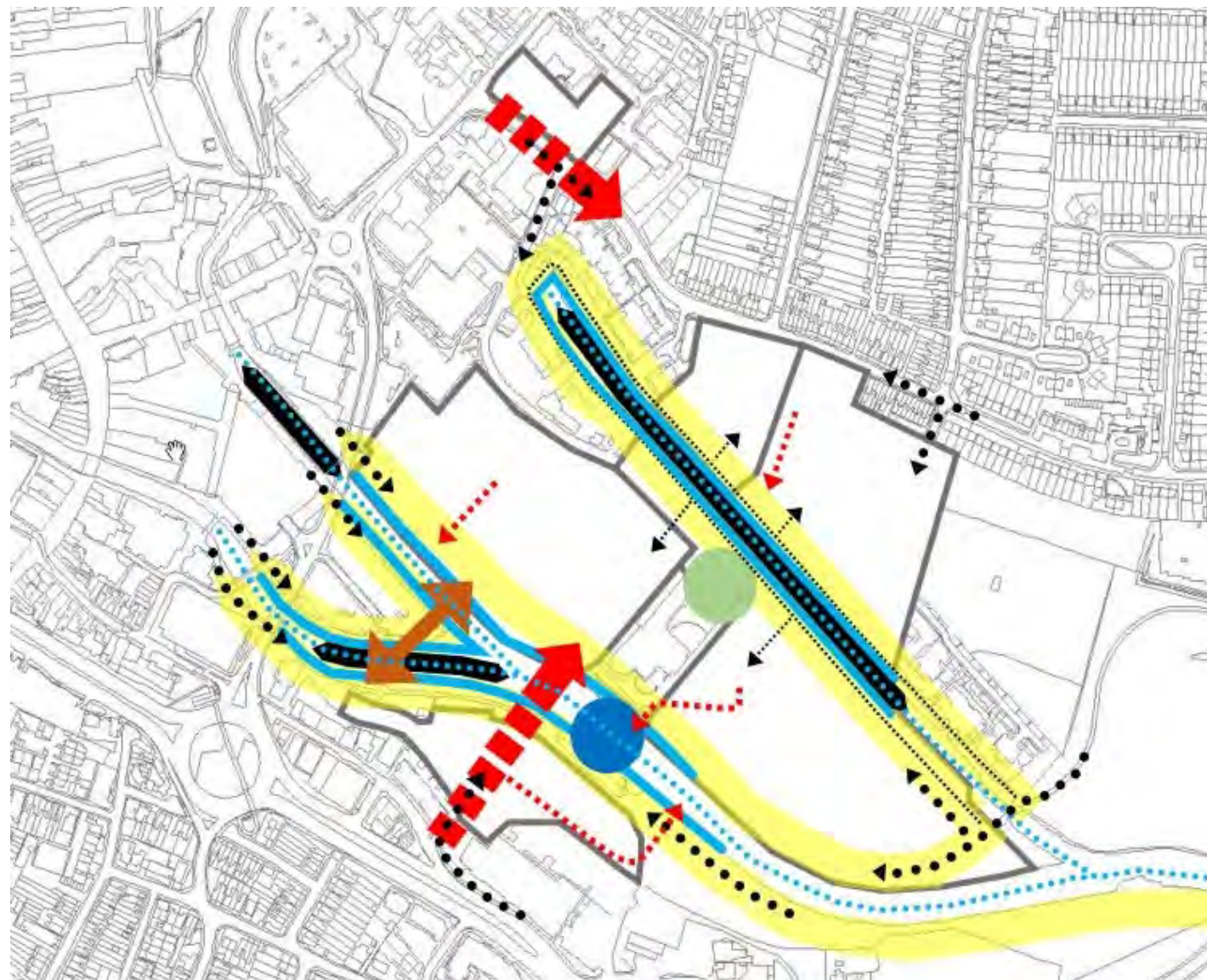


Key

- Residential use
- Residential with commercial frontage
- Commercial and river-related uses
- Early-years facility
- Commercial and community uses (flexible use)
- Retained public car parking
- Possible extension of area for mixed residential and commercial use
- Relocated gas compound
- Allocated land to remain available for allotment use
- Maintain active street frontage
- Manage relationship to High Bridge Road
- Uses to animate the routes alongside water
- Strengthen focus around Essex Record Office
- Maintain parking related to city centre uses
- Potential for water related use
- Early-years facility helps create more open setting to lower-scale properties

Access and Movement

- ✓ New bridge to provide access into the peninsula from the south allows more capacity in Navigation Road/Springfield Road junction – this new bridge must allow sufficient height beneath it to facilitate water navigation
- ✓ Upgrade Navigation Road/Springfield Road junction to provide sufficient capacity for new development along the north of the canal
- ✓ Replace existing pedestrian bridges to provide better cycle connectivity – these new bridges must allow sufficient height beneath them to facilitate water navigation
- ✓ Facilitate the creation of a new lock to allow boats to manoeuvre around the sluice gates to open up new water navigation opportunities
- ✓ Provide better route connections for foot and cycle movement. Sustainable modes of travel must be prioritised where feasible
- ✓ Provide a central car club facility to encourage less demand for private car ownership
- ✓ Create a central and vibrant hub of public interaction between land and water



Key









- - - - - ➔ Potential vehicular access to water
- ➔ Water access - maintained or improved
- ➔ Potential for moorings
- New lock along side automatic weir
- ➔ Vehicular access
- ● ● ➔ Pedestrian/cycle access
- - - - - ➔ Pedestrian routing around canal
- ↔ New cycle crossing
- Improvements to waterside pedestrian and cycle routes
- New car club
- - - - - Increased use of waterways

Arboriculture and Ecology

- ✓ Maintain and enhance tree planting along river corridors
- ✓ Maintain and enhance cultivated green edge to the river
- ✓ Provide a generous area of on-site public green space at the confluence of the two rivers for aspect, but also to offer flood attenuation
- ✓ Provide play equipment on main peninsula and land north of the canal
- ✓ Maximise opportunities for street planting within development parcels and demonstrate Net Biodiversity Gain
- ✓ Increase allotment plots and enhance natural land for biodiversity

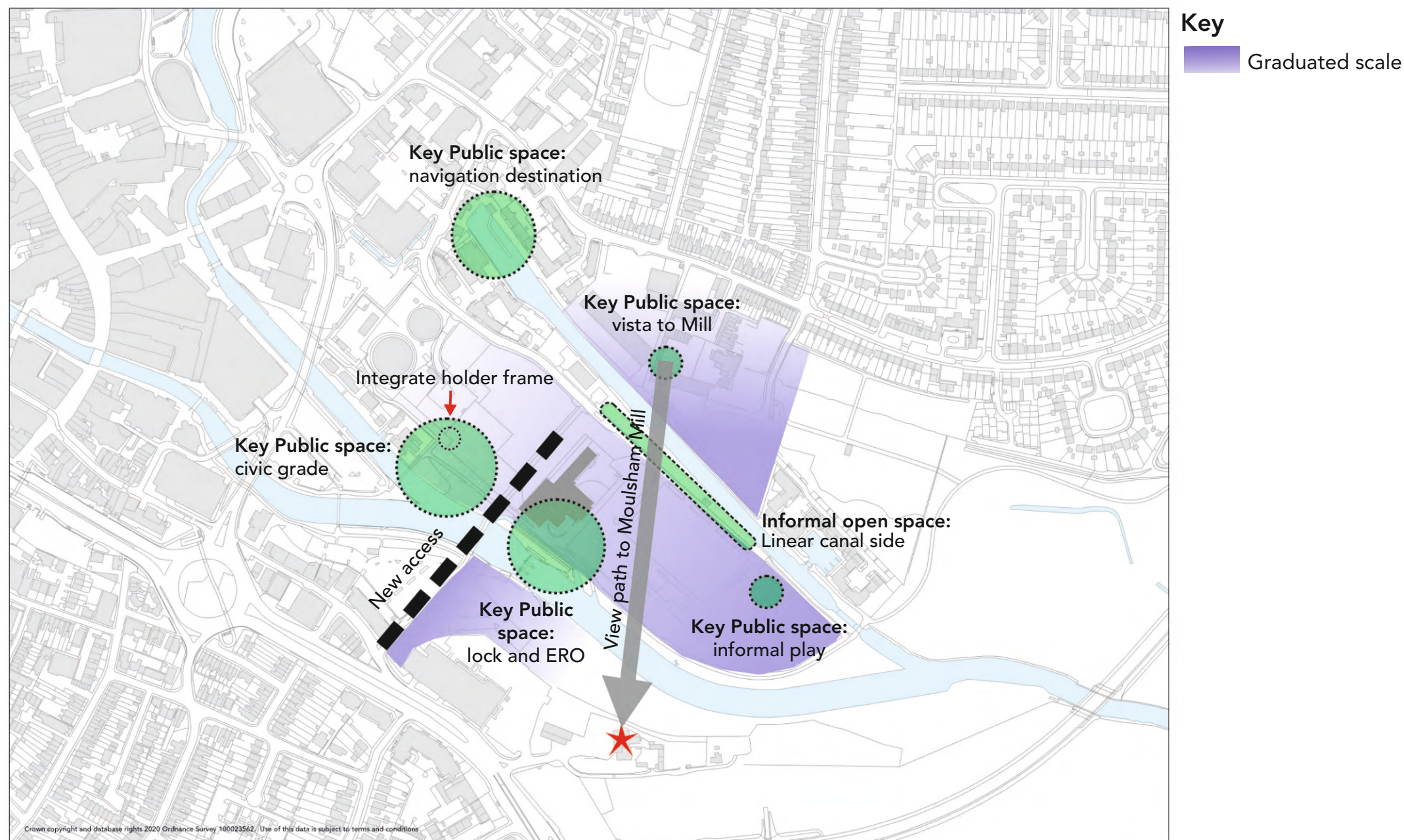


Key

-  Development sites to have positive street and space planting
-  Public open space
-  Natural land benefiting ecology but accessible to people
-  Area with potential interaction with water
-  Lock and weir
-  Allotments
-  Dense planting
-  Areas needing to be safeguarded for key infrastructure

Identity and placemaking

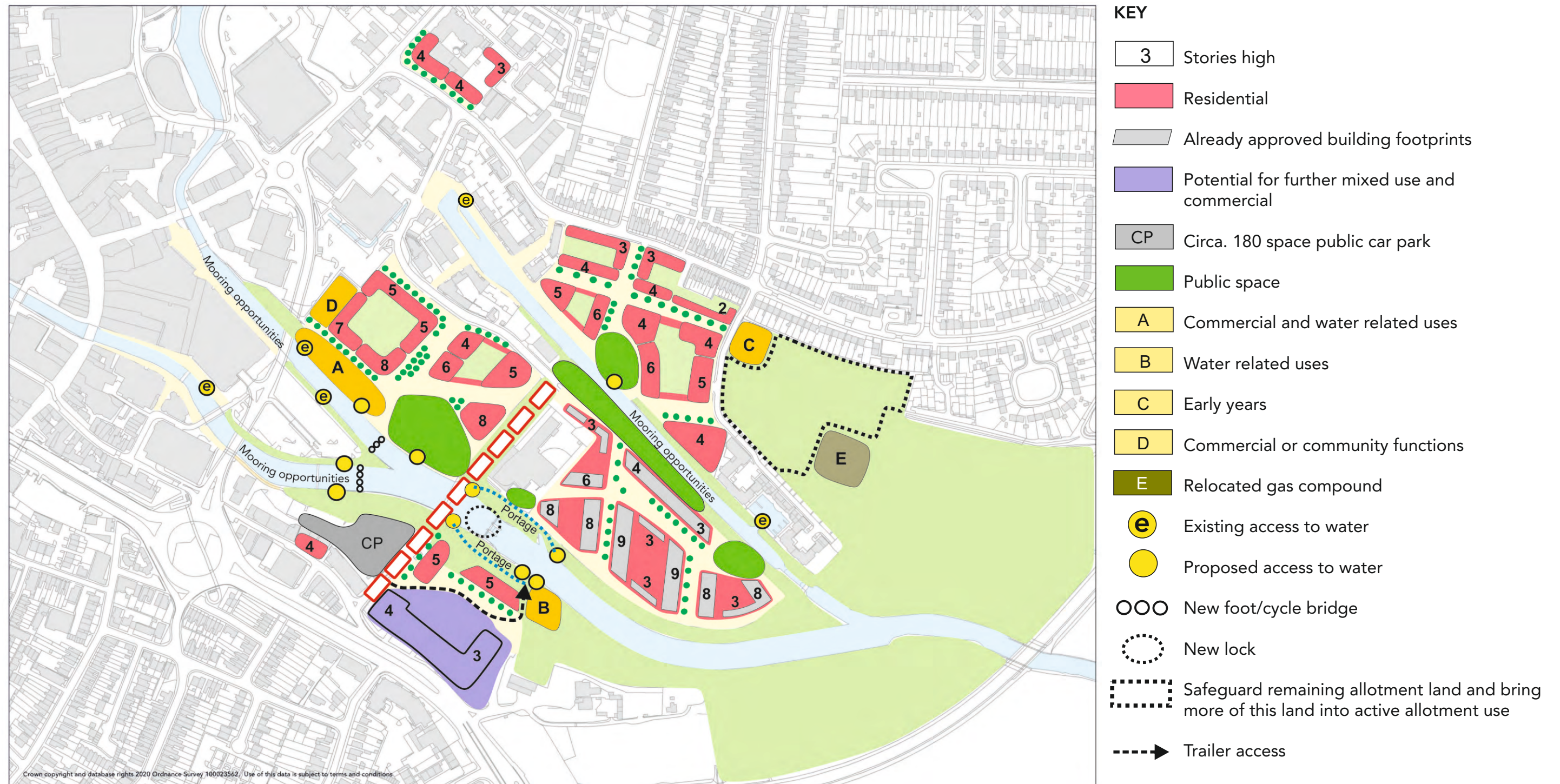
- ✓ Maintain an open and suitably framed open vista to Moulsham Mill across Chelmer Waterside parcels to emphasise the importance and relationship of the Mill to the site and local area
- ✓ Provide a new bridge structure which contributes a high-quality design
- ✓ Scale range of development to peak with development at the head of the peninsula, lessening to relate to the domestic scale of Navigation Road and lessening to water meadows on the south side of the River Chelmer
- ✓ Create a series of public spaces with varying function and character depending on their context and providing for the needs of the new neighbourhood



5. CONCEPTUAL MASTERPLAN

Conceptual Masterplan

This conceptual masterplan requires the relocation of the gas pressure reduction system to the allotment (east) meaning the existing high pressure gas main which runs across the peninsula can be removed. This allows for development in areas currently prohibited by the Health and Safety Executive. This conceptual masterplan layout is an efficient use of land whilst paying attention to the various environmental and place-making considerations.



Sustainable Movement

The regeneration of this area, all of which is less than a 5 minute walk from the city centre, must maximise opportunities for sustainable travel. The need for roads and parking will remain, but these must be dealt with in ways which minimises their use, visual impact and conflicts with walking and cycling. Parking ratios will be looked at as part of the detailed planning application stage and parking management of site-wide areas will be introduced to minimise and police on-street parking.

The key movement corridor will be east-west following the river corridor. These will follow for the most part the existing National Cycle Network route, but more route choices can be opened up by redirecting that cycle route over the smaller peninsula between the Rivers Can and Chelmer (currently a point where cyclists would have to dismount). The existing pedestrian bridges spanning the Rivers Can and Chelmer will need to be replaced to support continuous cycle connections.

A new cycle route to the south of the River Chelmer would provide connection with areas to the east of the city centre.

Routes shown green on the image adjacent represent pathways which are essentially free from cars.

Because of how the site relates to the wider city road network, car movements through the site are going to be lower than other areas of the city centre as there is no advantage to rat-running through these areas. Road speeds within Chelmer Waterside will be limited to 20mph in the most part. On-road cycling will be acceptable throughout the development and will provide connection with areas to the north and south, as well as the east-west corridor. These routes are an important part of the network as they provide the new residents with a 'doorstep' connection to the sustainable travel corridors.

A dedicated pedestrian route, echoing the historic tow path, will loop around the canal.

Roads within the site will be considered 'access only' and measures to reduce private car ownership and usage are to be designed into the development. The first stage of a reduced-ownership strategy here is to initiate a car club (a scheme open to the public to short-term hire cars from Chelmer Waterside) which will reduce the need for ownership and parking demand. Abundant cycle storage for new residents and other initiatives will further support a more sustainable attitude towards local travel.

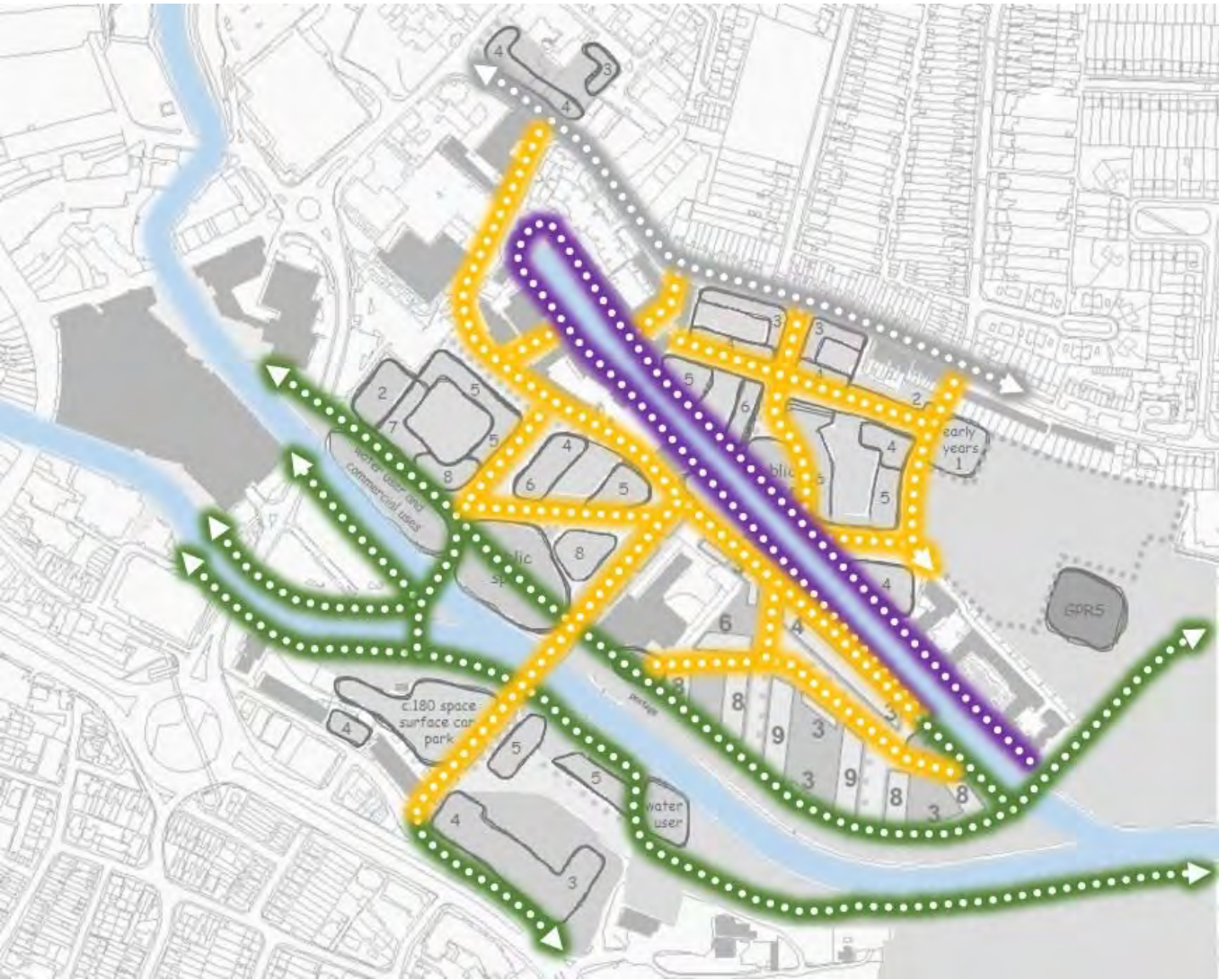
Access for service and emergency vehicles throughout the site is still required.

Foot and cycle paths, existing and new must be attractive and safe to use. Improvements to existing routes and the standard of new routes within Chelmer Waterside will address:

- Surfacing: routes will be consistently surfaced to reflect the route hierarchy
- Drainage: pathways should have a suitable camber to direct water away

- Lighting: all routes must be well lit and existing fittings should be upgraded to directional LED
- Safety: routes should be well overlooked by development and covered by CCTV where appropriate
- Environment: the routes must be well defined by high-quality development and/or landscaping
- Wayfinding: Good directional signage must be provided

Strategic Combined Pedestrian and Cycle Routes



KEY

- Pedestrian and cycle only (car free except occasional crossover)
- On-road routes (low traffic estate roads)
- Pedestrian only

Public Spaces

On-site accessible local open space needs to provide a community focus for the development. Spaces should promote community togetherness and provide for an active lifestyle for all ages.

As the development is in a city centre location it may be that some spaces have a more urban character, but all spaces must contain generous amounts of soft landscaping and tree planting. Large areas of soft landscaping will help to cool the development, contribute to an attractive environment, support ecology and can provide flexible recreation space.

Spaces will have more than one purpose and consideration needs to be given to how the spaces will serve the wider community as well as people living within Chelmer Waterside itself.

Development will need to provide for equipped play. Two locations have been identified, north and south of the canal.

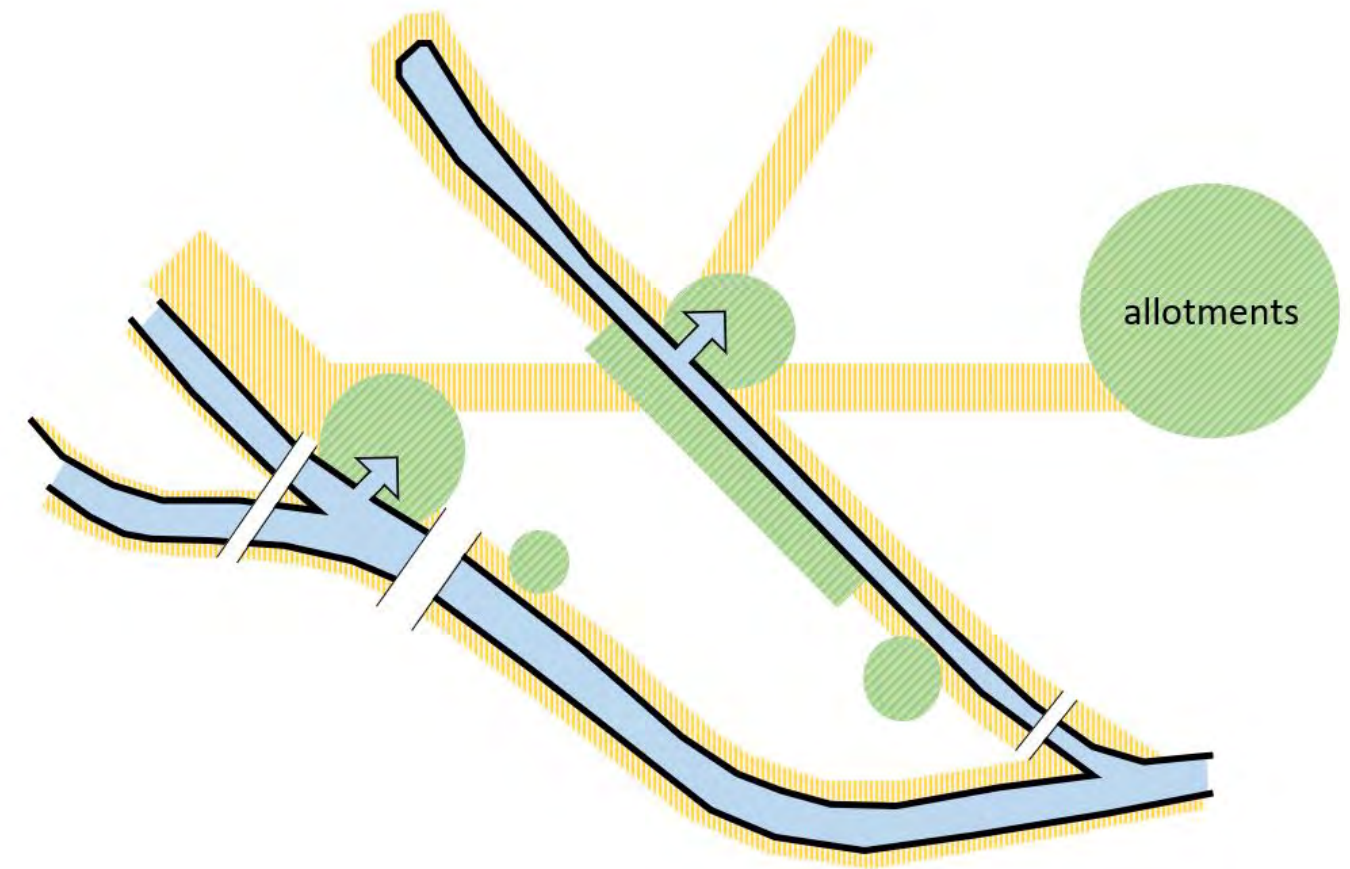
Outside accessible gym equipment promotes a healthier lifestyle. Equipment could be incorporated as part of a public open space or could be incorporated within the wider public areas of the development.

Wayfinding should be incorporated throughout the development, but is especially useful within public spaces which act as nodal points within the wider pedestrian and cycle network.

Public spaces may provide some SUDS function and may contribute towards a flood attenuation strategy, but these overlapping functions must not detract from the main purpose of the spaces which is to provide areas for public recreation.

The salvaged wrought iron gas holder frame from the c.1910 gasometer must be successfully and meaningfully incorporated into site CW1a (former gas works), which can be done as part of the public open space (e.g. a curved backdrop to a performance space – this approach could also be used to hold a large screen for outside cinema events, could incorporate public art and could make use of feature lighting and green walling to really make the most of this key focal point).

The concept masterplan identifies areas where public open space is more desirable. These spaces contribute to a comprehensive design-led approach for the Chelmer Waterside development and ensures a good distribution of public spaces to serve the development.



Arrangement of open spaces and fixed open corridors

Chelmer Waterside must interact with the water and promote water activities. Some of the main opportunities for physical access to the water will come via the public spaces. Examples of how those spaces might interact with water and increase the physical presence of water is given in the following vignettes.

These studies (vignettes) are not intended to provide prescriptive design guidance, they are to give an example of how the various functions of the space could be arranged and to outline the character of place that these spaces should achieve.

Vignette: Cw1a Public Open Space

Themes:

- water
- community function
- nature
- route continuity



Additional notes:

Circa. 4000sq. metres open space (not including wider public open areas north and west)

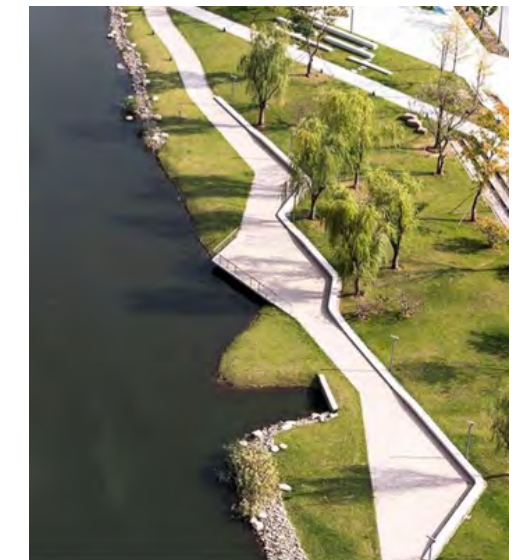
Equipped play area approx. 350sq. metres

4m wide foot/cycleways

Some possible increase in water (natural edge) and also terracing of land down to river will provide depth for flood compensation

The holder frame would serve as an enclosure for outdoor theatre, live music or other events - anticipate the holder frame might incorporate green walling and/or public art

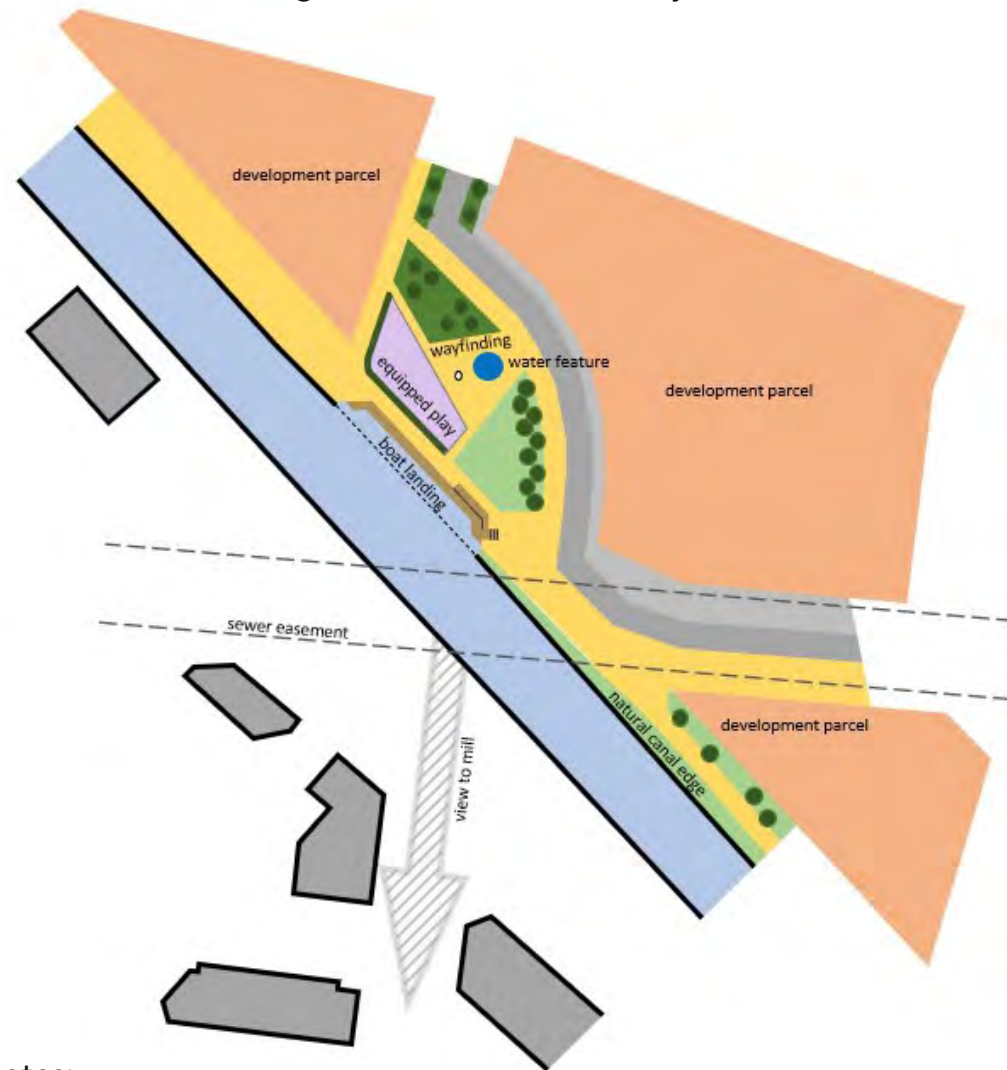
The green terraced mounding by the holder frame provides non-obtrusive seating for the event space as well as fun area to play when not in use



Vignette: CW1c/e Public Open Space

Themes:

- mill view
- water
- canal edge transition
- community function
- route continuity



Additional notes:

Circa. 2000sq. metres open space (not including continuation of towpath beyond)

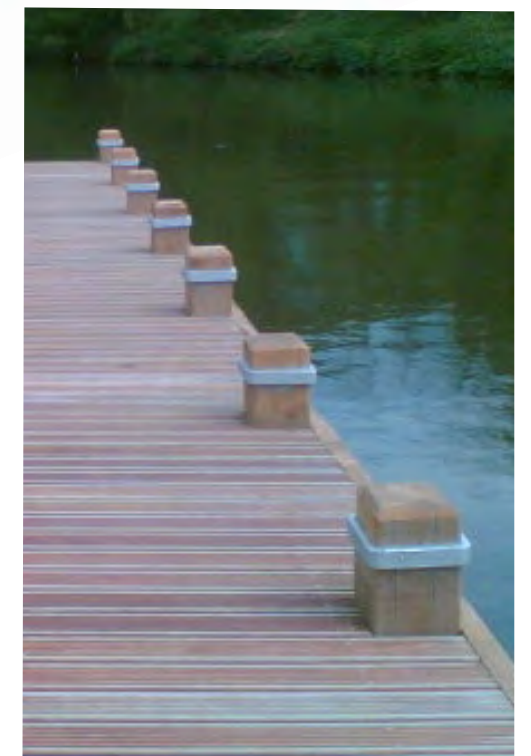
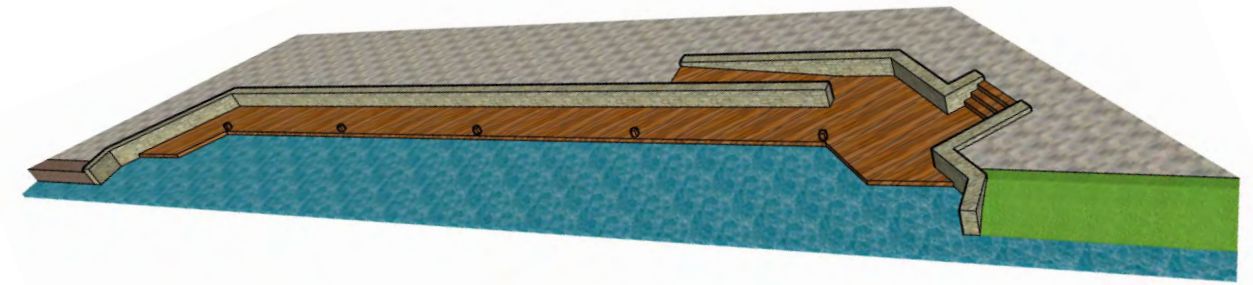
Equipped play area approx. 250sq. metres

Development set back at least 10m from the canal

Foot and cycle routes through space

Potential to integrate increased width of canal into this space - landing stage/recreational moorings

This space must respect and respond to the view across the peninsula towards Moulsham Mill



River Users

Within site CW1a there are two existing river user groups, Chelmsford Canoe Club (Canoe Club) and Chelmsford Sea Cadet Corps. (Sea Cadets).

Both of these groups have land-based facilities and need access to the water for smaller craft. Access to the water is currently possible given the relative levels of land/water at their respective sites meaning small craft can simply be positioned close to the bank to enter/exit the water. The Sea Cadets also have use of a slipway.

The facilities needed to support the groups varies, but both need storage and clubhouse/classroom facilities.

Each site is currently enclosed with a fence for security.

The waters up and down stream of the groups' current sites would be suitable for paddling and boating so the groups could relocate and gain generally commensurate access to the water. However, it is recognised that the stretch of water next to those current sites has a consistently still condition owing to the automatic weir slowing the flow of the river which makes it more appropriate for novice paddlers/boaters and is better for events and competitions.

To facilitate the regeneration of Chelmer Waterside the existing structures used by both groups will be removed. This must happen to open up the river frontage for wider positive and public oriented uses which is at the core of the redevelopment. Reprovision of facilities will be agreed as part of the planning application process. Sequencing of works will need to ensure those groups can continue to operate.

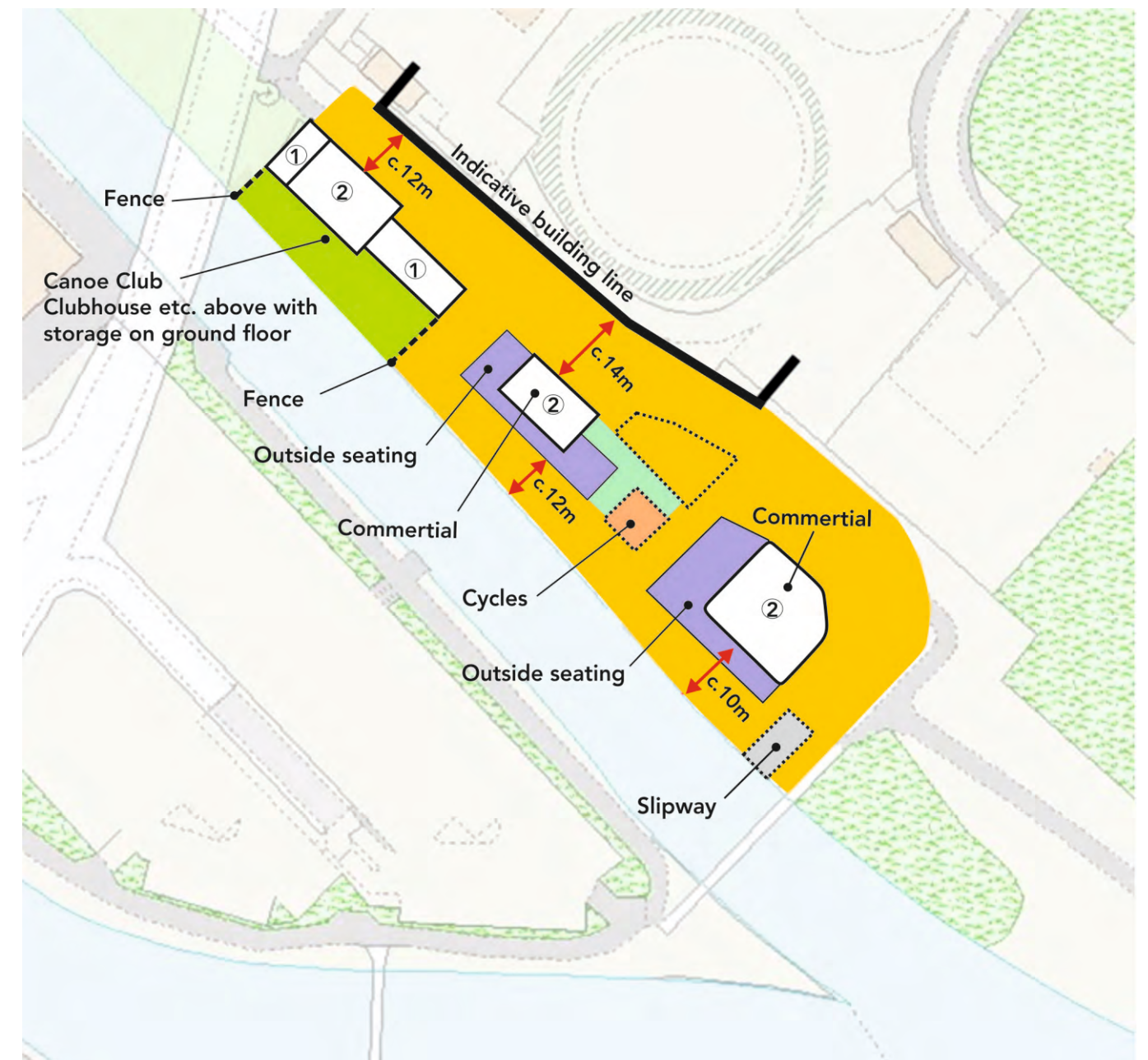
Possible locations for the groups to re-establish have been identified within the Framework which includes a site below the weir and potential re-introduction to CW1a within a smaller site footprint as part of a mixed-use frontage to the river.

It is likely that the Sea Cadets will relocate to the site identified below the weir. This site will connect with the water. A public foot/cycle route will continue east around that site so as not to sever the river user site from the water.

Whilst there may be alternatives beyond Chelmer Waterside for the Canoe Club, one option would be to incorporate that group into the redevelopment of CW1a as part of a mixed-use river frontage. This would require a consolidated site area, perhaps with clubhouse facilities located above storage to maximise the potential of the available land, which would be smaller than the current site. Physical enclosure of that site would need to balance a positive relationship to surroundings. It is feasible that canoeists could get on/off the water outside

of the site's defined river frontage and that events could overspill into adjacent public areas from time to time to further benefit the vitality of this area and manage the needs of the Canoe Club.

Below is an informal (without prejudice) indication of how uses might be configured along that frontage in future. This study is for illustration only – detailed consideration of these areas will be undertaken at the appropriate future stage of the planning process.



Space feasibility study – not a proposal

Water Access

Chelmer Waterside already contains serviced moorings along the navigation and there are various ways to access the water. Some of those point-of-entry facilities are in a poor state of repair and some are currently inaccessible to the public.

As part of the regeneration of Chelmer Waterside under this Framework the means to access water will be expanded. This is likely to include:

- Short term moorings
- Serviced moorings (serviced = supply of potable water and electricity)
- Direct bank access
- Floating or fixed landing stages or jetties
- Slipways

Where access to water is intended, consideration must be given to suitable access from local roadways with a boat trailer – although this will not be possible in every instance. Trailer access must be provided to both of the water user sites; additionally, it is anticipated that those routes will provide access to separate nearby public entry points.

The existing boat rollers to the north bank around the automatic weir are in a state of disrepair and will be removed. Slipways or landing stages for smaller craft will facilitate portage around the weir, and in time the new lock. To increase access to water from both sides of the River Chelmer slipways/landing stages and a route for portage will be introduced on the south bank as well.

Within the confluence of the River Chelmer and River Can there are further opportunities for landing stages or jetties, subject to agreement with the Environment Agency.

Opportunity exists for serviced moorings, primarily for recreational craft, to be created along the River Can, River Chelmer and along the canal navigation. Moorings would be less suitable in the stretch of the River Chelmer between the confluence and High Bridge Road as this would impede existing river use by groups such as Chelmsford Canoe Club and would constrain development of new river uses, such as paddle boarding or row boating.

To attract visitation to Chelmsford by outside recreational boaters serviced moorings should benefit from legible pathways to local commercial uses, such as shops, bars and restaurants.

Local boat storage would facilitate easier access to the water for members of the public. Boat storage can be integrated into the developments to take account of security considerations.

A boat craning position shall be created within CW1b to make it easier to add or remove canal boats (e.g. for maintenance).

Separate car parking for river users will not be provided due to the availability of local public car parks. Some local visitor parking will be provided within development parcels.

Below - some examples of water access – see also Public Spaces section.



Short-term mooring/small craft landing



Common style of slipway

Examples of direct bank access integrated with public seating/terrace



6. CHARACTER

Chelmer Waterside will have its own identity and sense of place as a distinct quarter of the city centre.

The area holds some historic references, such as the listed Moulsham Mill and early 20th Century Waterfront Place warehouse building. These should contribute towards design character and be a clear design cue for new development.

Much of the Site has either been cleared or is currently occupied by industrial sheds which can contribute nothing to successful place-making.

The initial phase of development at the Peninsula has already been formally approved and is under construction. The design approach of this development was negotiated for this site and through robust architecture and materials references industrial character of architecture suited to this environment.

All development parcels must bring new interest and innovation to the area, harmonise with the Peninsula development (representing the first phase of site development) and be sufficiently sensitive to local characteristics where the site meets those existing environs.

Spaces between buildings must connect all development parcels and must be well-considered in terms of layout, view paths, desire lines, function, etc. High-quality street planting must have a significant presence within all development parcels. In addition to planting within streets and spaces, buildings should incorporate high-quality planting as an integral component of design, which may include street level planters, green walls, upper floor window boxes and planters or other means of softening the urban character of the buildings and adding interest to the local area.

Sustainable Urban Drainage Systems must be considered as part of a positive, site-wide development layout and must not detract from the wider function of public open spaces or be over concentrated into public open spaces.

All materials must be coherent and high quality.

The development must be based on contemporary standards of sustainable construction, ensuring appropriate progress towards net zero Carbon emissions.

Development should incorporate those features which reduce environmental impact and emissions, which might include:

- communal or district heat and power systems
- reduced reliance on fossil fuel heating and hot water systems

- central energy storage to power (e.g. light, ventilate, heat/cool) communal areas of the development
- use of smart grid technologies
- green roofs, walls and other planting to help cool the development
- solar panels
- grey water capture



Computer generated image of development at the peninsula

7. BESPOKE STRATEGIC INFRASTRUCTURE NEEDS

New access bridge to serve Chelmer Waterside

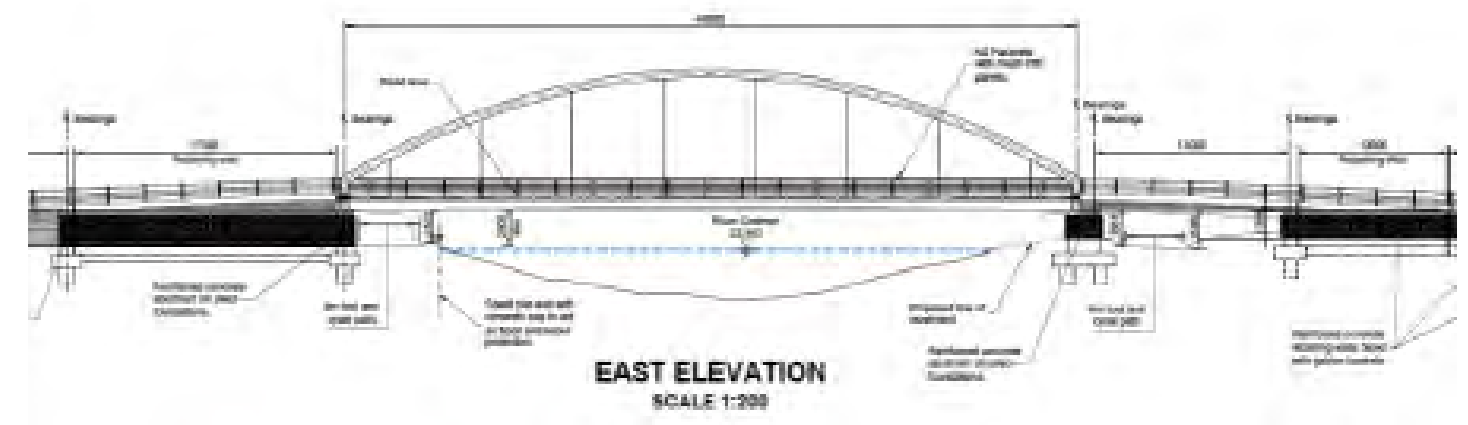
Currently there is one access corridor along Navigation Road to the site. The existing corridor does not have sufficient capacity to serve all development parcels. Some capacity improvement can be achieved to the existing Springfield Road/Navigation Road junction and these will be provided as part of development (for example, site CW1b provides contributions via legal obligation attached to the planning permission), but to achieve suitable access to Chelmer Waterside in the main, a new access route is required.

The Council has secured advance funding from Homes England (referred to as HIF funding) to implement a new access including replacement of the Bailey bridge across the River Chelmer adjacent to Essex Record Office. This will create a vehicular connection between Chelmer Waterside Peninsula and Baddow Road, which then connects onto Parkway. Planning permission has been granted for this new access - delivery will commence in 2022

The new access will facilitate the continuation of foot and cycle connections and allow for betterment of the sustainable transport network to be achieved through the regeneration of the area which will create additional routes and remedy existing constraints, such as the requirement to dismount cycles over pedestrian bridges.

In time it is anticipated that this section of National Cycle Network Route 1 through Chelmer Waterside can be designed to offer continuous cycling across rivers and avoiding roads whilst offering ease of access to more parts of the city centre. These foot and cycle routes will offer new and existing residents alike the opportunity to travel around the city by sustainable means and reduce reliance on car travel.

All advance funding provided via the Council/HIF towards strategic infrastructure such as the new access bridge, is to be recovered through each of the Chelmer Waterside allocation sites (CW1a-e). Site CW1f will contribute further to the Navigation Road/Springfield Road junction in the form of land release and a contribution towards improving capacity in that junction in lieu of a contribution towards the Chelmer Waterside access bridge. The advance funding has been put in place by the Council or via HIF to unlock housing sites more quickly and prevent these strategic issues undermining or obstructing development as a whole, not to provide relief to development margins - so this advance funding must be repaid proportionately across each site. This infrastructure is necessary to deliver a comprehensive development at Chelmer Waterside, make the best use of previously developed urban land, manage the needs of the development area as a whole and make development acceptable in planning terms.



Lock creation

The automatic weir is currently maintained by the Environment Agency, but as part of the review of this asset it is likely the Local Authority will be required to undertake its future maintenance.

The automatic weir has two core functions:

1. Retention of water within the channels of the Rivers Can and Chelmer through the city centre – without the gates maintaining higher water levels the channels of those rivers as they route through the city centre would be drained of all water in all but the wettest periods. The weir also maintains water levels in canal navigation and Springfield Basin
2. Control and release of flood water into the flood plain south-east of the structure – this function is vital to help protect the city centre in the event of flooding along these river channels.

As it currently exists, the automatic weir prevents the passage of boats beyond it in either direction, which effectively sterilises the city centre from all but the smallest craft which can more easily enter the water from the bankside – e.g. canoes and kayaks.

There are a series of boat rollers to the south of the Essex Record Office which would enable those smaller craft to bypass the automatic weir, but these are no longer used due to the state of disrepair. Appropriate slipways for small vessels to enter/exit the water on either side of the weir/lock and on either side of the river will be provided. Other facilities such as fish passes and canoe chutes can also be explored under the remit of the lock project.

It is a key aspiration of releasing the waterside areas for redevelopment that activity along the city's waterways increases and not just for personal craft, but for a whole variety of recreational and commercial craft, and even residential craft where this would be appropriate. It is important however that new moorings add positive function to the area and do not undermine the public interaction with water or constrain other water-related functions.

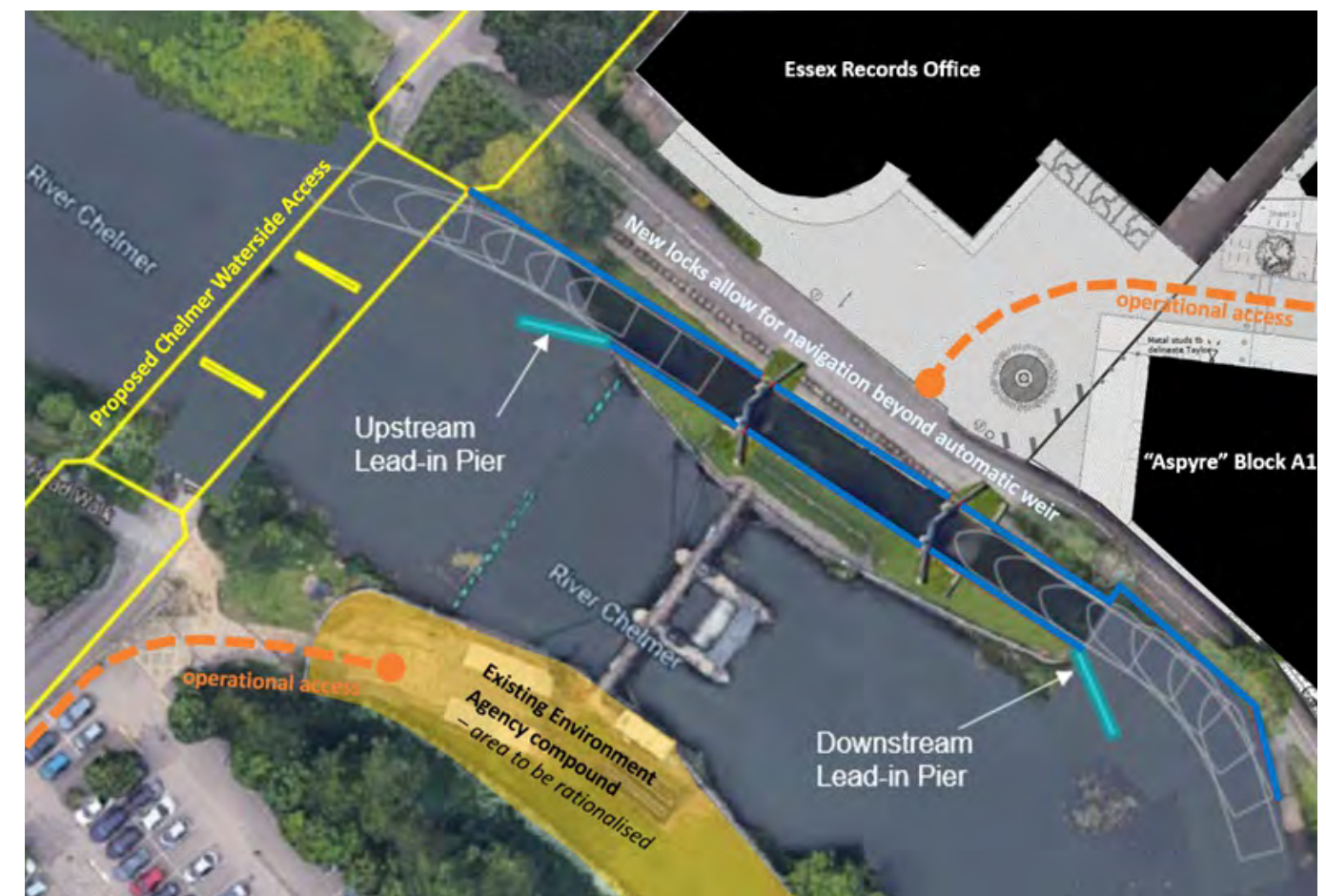
New and increased access to the water would be provided via the new development parcels. A key area of focus will be the new public open space west of the Essex Record Office which will overlook the confluence of the Rivers Can and Chelmer. Here new jetties and moorings will provide a direct and diverse crossover between land-based and water-based activities and create a focus for water-based leisure activity. Along the canal at CW1c there will be opportunities to explore reprofiling the natural bankside to create moorings.

Chelmer Waterside development will contribute proportionately to the creation of vibrant and active waterways which will include contributions towards the lock and upgrade of the automatic weir as a strategic infrastructure contribution in addition to other strategic works and site-specific works and improvements.

As it is shown on the first diagram within this section, the feasibility of introducing a lock channel for larger craft (e.g. canal-boat size) has been carried out. Whilst available space is

limited, there is an opportunity to facilitate water-borne navigation into the city centre. The second diagram on this page shows how this would extend the navigation into Chelmsford City Centre from Heybridge Basin; this will connect Chelmsford City Centre with a circa 14 mile stretch of scenic water making Chelmsford City Centre the destination.

As part of this work a new feeder channel from the River Chelmer to Springfield Basin across CW1a would be needed to maintain water levels in that part of the network.



As part of the design of a new lock and in combination with the retained automatic weir, it is feasible that additional functions could be introduced. These may include a canoe chute, fish pass or hydro-electric power generation. Those features and the wider design of the lock will be considered through a separate planning process, not by this Development Framework document. However, below are some images of fish pass, canoe chute and water wheel (one potential source of hydro-electricity generation) for contextualisation.



Image of empty canoe chute showing fish pass built in



example of a water wheel used to generate power



Image of an operational canoe chute at Eldridges Lock on the River Medway

High pressure gas - equipment relocation

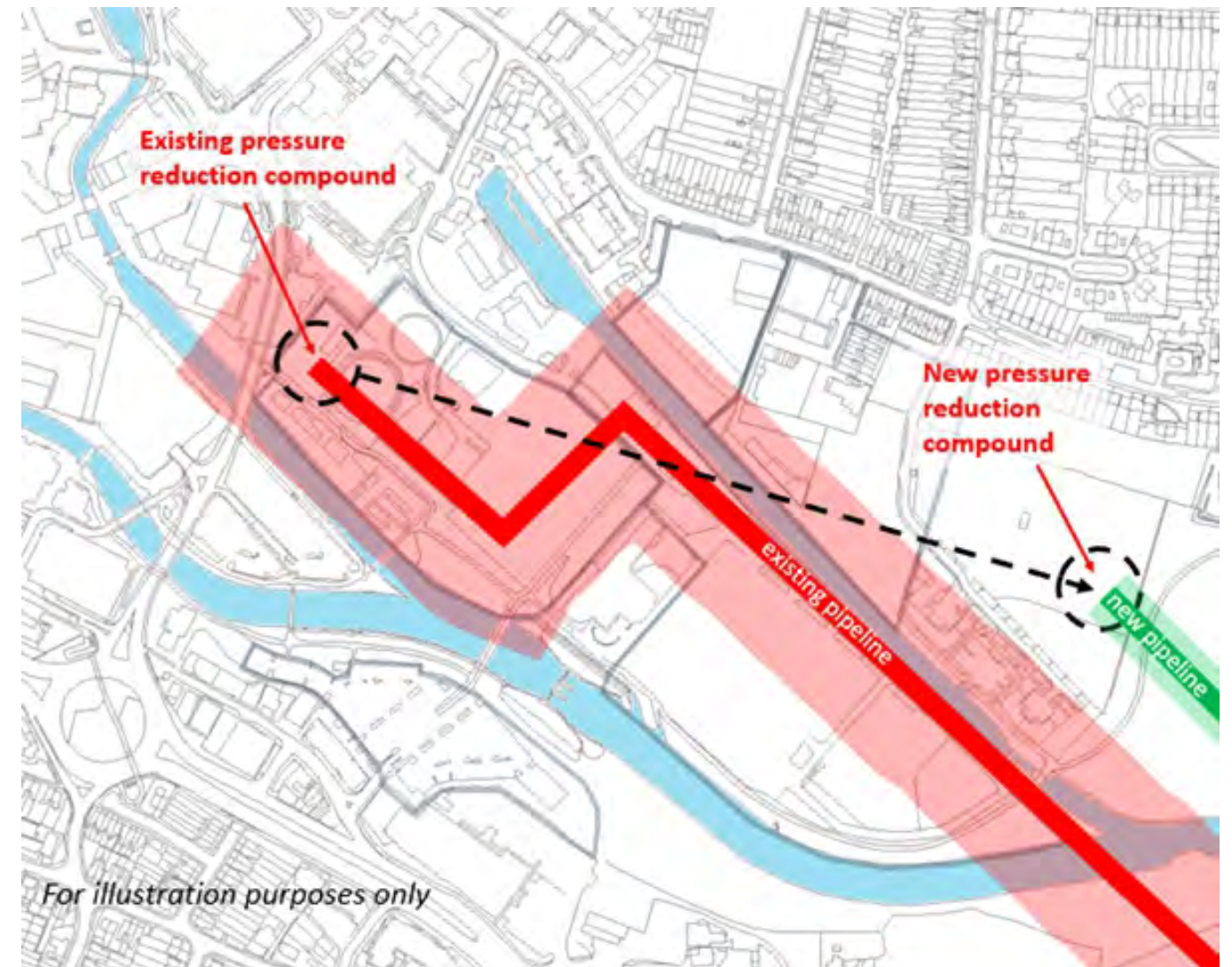
Earlier in this document (see page 13) the impact of the gas pipelines and compounds have been highlighted. That section explains the Health and Safety Executive set zones around high-pressure gas pipelines within which development is not allowed for reasons of access and safety. Because the pipelines in this part of Chelmsford are an older type, the margins are much larger than they would be for newer pipelines, meaning a much larger area is prevented from being developed or improved.

These existing high-pressure pipelines would have a significant impact on where development could be located, how much development this sustainably situated, brownfield land could accommodate, and it would compromise the ultimate quality of regeneration because large areas would have to remain undeveloped, but also not landscaped as roots can compromise the integrity of the pipelines or cause other maintenance constraints.

In order to allow more positive development to take place on the former gasworks and on parts of sites north of the canal the high-pressure gas pipelines need to be re-routed to a new gas pressure reduction compound. The gas pressure reduction compound converts the pressure of the gas from high (for national conveyance) to medium and low pressure (for supply to individual properties). A new gas pressure reduction compound will be located to the north-east of the site (in the same location as previously approved in 2005). This is the closest point to where the pipelines enter the city from under the water meadows to the east. This new compound will allow the gas network operator to decommission the high-pressure pipelines routing across the site in their entirety.

The Council has secured advance funding from Homes England (referred to as HIF funding) and is putting additional funding forward to implement these works in advance of housing development. All advance funding provided via the Council/HIF towards strategic infrastructure such as the gas pressure reduction compound relocation, is to be recovered through each of the Chelmer Waterside allocation sites (CW1a-f). The advance funding has been put in place by the Council or via HIF to unlock housing sites more quickly and prevent these strategic issues undermining or obstructing development as a whole, not to provide relief to development margins - so this advance funding must be repaid proportionately across each site. This infrastructure is necessary to deliver a comprehensive development at Chelmer Waterside, make the best use of previously developed urban land, manage the needs of the development area as a whole and make development acceptable in planning terms

The existing gas pressure reduction compound to the west of the site will be decommissioned and that land will form part of the regeneration allowing for a more positive interaction between the site and the city centre.



Allotments

Hill Road Allotments is a community facility. It provides opportunity for local residents to grow their own fruit and vegetables which is a sustainable source of food and tending to an allotment can contribute to general health and wellbeing as well as good mental health and wellbeing.

Some of the allotment land has been allocated for development within the adopted Chelmsford Local Plan (May 2020). This Framework seeks to manage the use of that land to minimise impact on the allotments. This Framework concludes that only the essential infrastructure needed to bring forward the Chelmer Waterside development should be situated within the allotment land.

New development will bring additional demand for allotments. To meet this new demand additional allotments will be funded through the Chelmer Waterside developments. An illustrative scheme is shown adjacent.

Facilities improved to meet the increased demand should include:

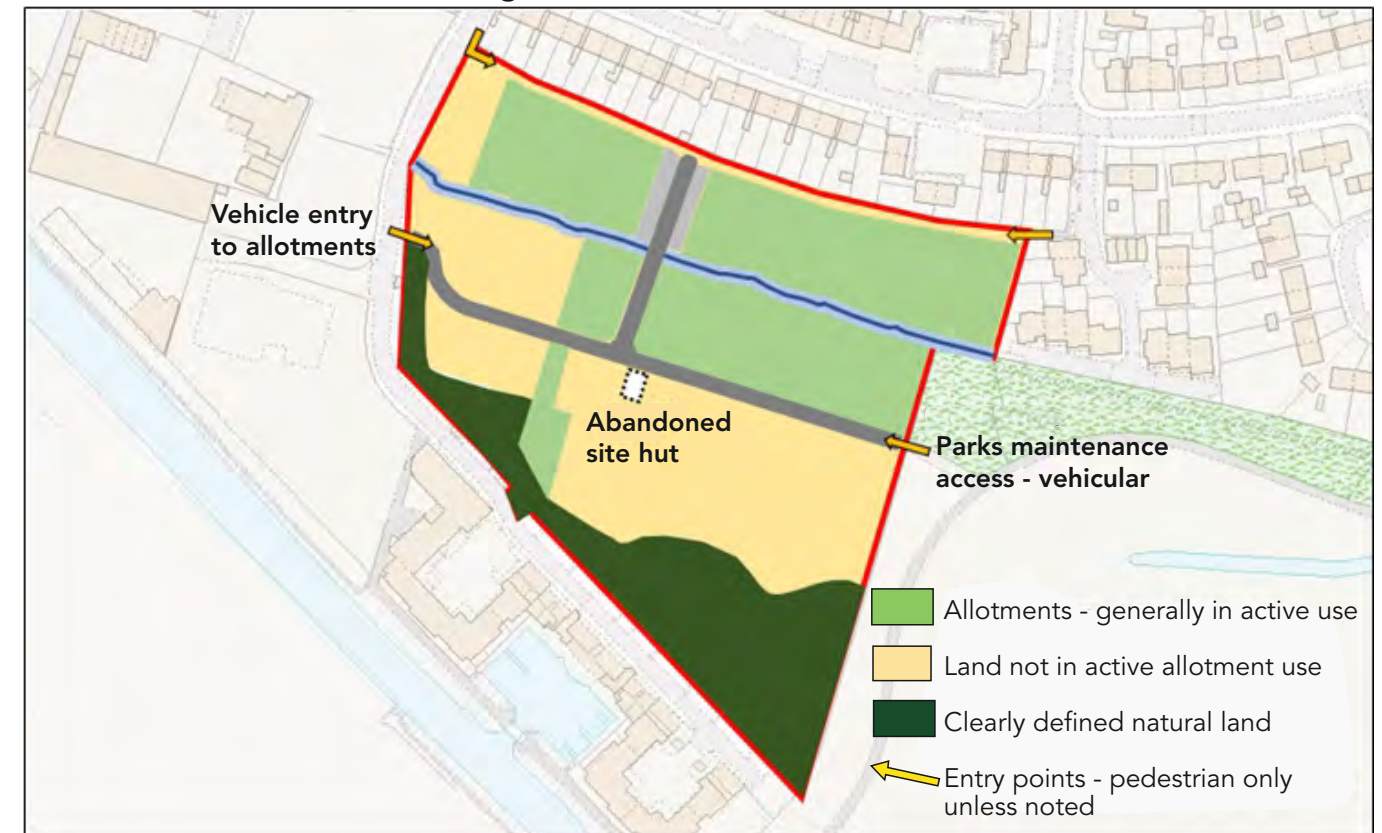
- Greater number of allotment plots
- Water supply for irrigation of new allotment plots
- New site hut and toilets
- More on-site parking
- Improved drainage
- Increase in natural landscaped areas to promote greater biodiversity

Allotment plots on the southern half of the site may flood more frequently. Drainage should be improved to compensate for this, but there will remain a risk of flooding due to the relative topography of the area and known flood risk from the local water courses. Development at CW1c should not increase flood risk to the allotment site.

The essential infrastructure should be designed to reduce impact on allotments which should include introduction of only lower-scale buildings and siting buildings away from site boundaries shared with adjacent allotment plots wherever possible.

An existing pedestrian entry point to the allotments situated in the north-west corner will need to be closed to provide a secure early years nursery site of adequate size. The existing vehicular access to the allotment site from the west will maintain pedestrian access from the west.

Hill Road Allotments – as existing



Hill Road Allotments – illustrative improvement scheme



8. DELIVERY AND PHASING

The timing of housing delivery within the Chelmer Waterside area is part governed by the commitments given to Homes England under the Housing Infrastructure Fund process. This process has enabled the Council to forward fund some of the key infrastructure aimed at unlocking development sites in Chelmer Waterside. This funding is not in place of developer funding of those infrastructure works, it is to speed up delivery of those works which are needed prior to the commencement of housing development, so that those works do not prohibit a timely start to housing construction once approved. As part of the approval of housing development, sites across Chelmer Waterside will be required to repay the cost of those advance-implemented infrastructure works – e.g. through Section 106 Agreements. All allocated sites CW1a-f will be required to contribute towards collective infrastructure provision for the purposes of delivering a singular, comprehensive development scheme across Chelmer Waterside

Not all infrastructure works can be advance-funded/delivered, and so there remain various infrastructure works to be completed during the course of housing construction.

An indicative programme is provided below. This will be subject to future evolution, but it provides a basis of understanding at this stage of how the various works can fit together in sequence.

The CW1a-f references in the table below relate to the Chelmsford Local Plan (May 2020) Site Allocation numbering - see also page 2 of this document

Allocation	Target Planning Permission	Target Commencement	Target overall completion
CW1a	March 2023	April 2024	April 2030
CW1b	Already approved	Already Commenced	Feb 2023
Cw1c	June 2022	July 2023	April 2027
CW1d	March 2023	April 2024	April 2026
CW1e	January 2024	February 2025	February 2029
Cw1f	January 2025	February 2026	February 2028

Key infrastructure (not exhaustive)	Potential delivery
Construction of new access bridge and road	December 2023
Relocation of high pressure gas pipeline	September 2023
Replacement of footbridge to River Chelmer	April 2025
Replacement of footbridge to River Can	April 2025
Upgrade allotment site	April 2025
Repair of existing sluice gates	April 2025
Creation of new lock channel at sluice gates	April 2025
Early years and childcare facility	April 2027
Re-use the gas holder frame	April 2027

Potential sequencing:

1. Commence Site Cw1b
2. Provide new access bridge and road
3. Relocate high pressure gas infrastructure
4. Commence Site Cw1c
5. Commence Site Cw1a (includes Canoe Club re-provision)
6. Commence Site Cw1d
7. Replace existing footbridge to River Chelmer
8. Replace existing footbridge to River Can
9. Commence Site Cw1e
10. Commence Site Cw1f
11. Upgrade allotment site
12. Repair existing sluice gates
13. Provide new lock channel
14. Provide new early years and childcare facility
15. Re-use the gas holder frame as part of development of Cw1a

