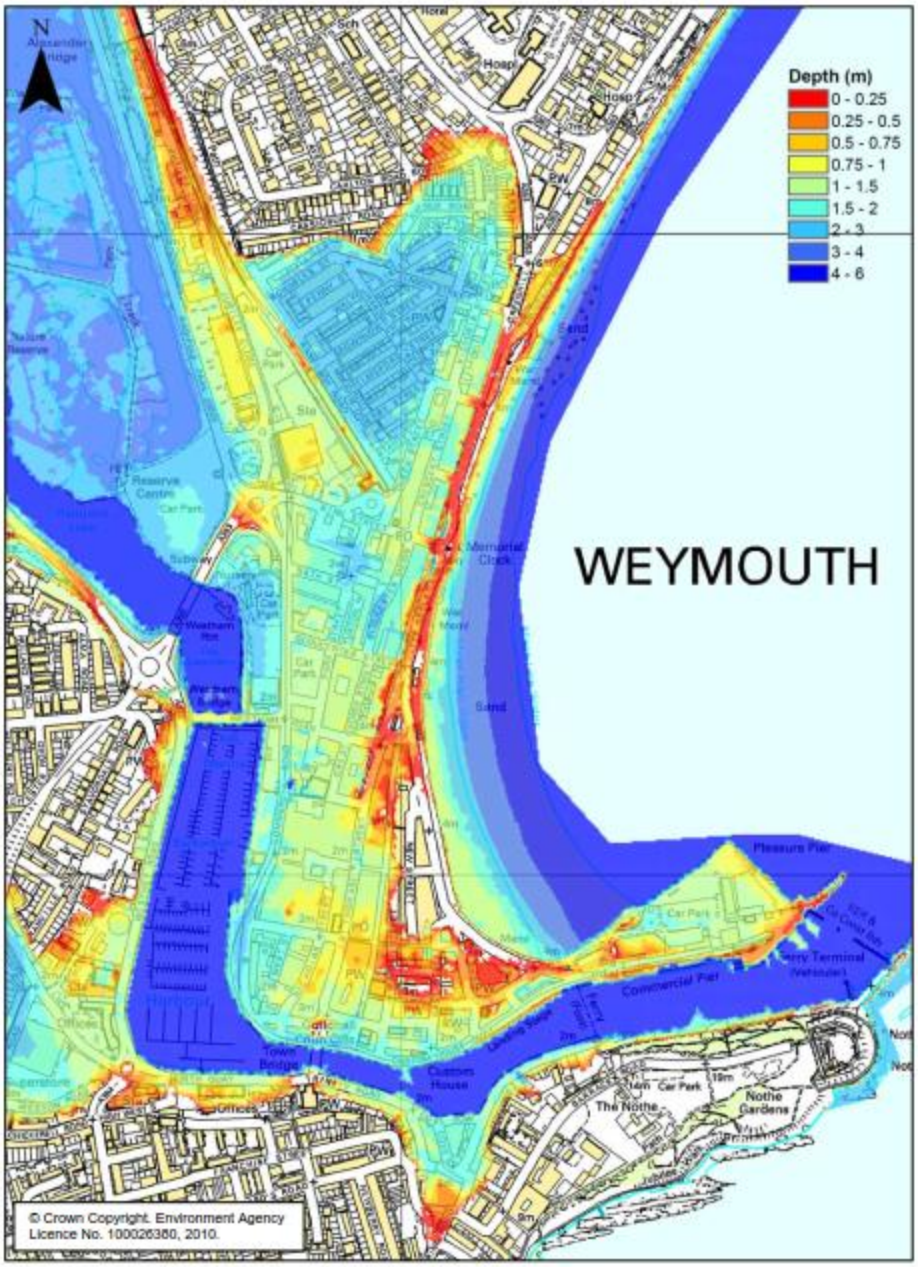
Figure 6.1 – Modelled depth of flooding for the 1 in 200 year tidal event with wave overtopping in 2126



23

Weymouth Flood Risk Strategy Report
Final Report

Environment Agency
June 2010

Figure 6.1 – Modelled depth of flooding for the 1 in 200 year tidal event with wave overtopping in 2126

Figure 9.1 – An illustration of the walls required to protect against the 1 in 200 year flood by 2126.

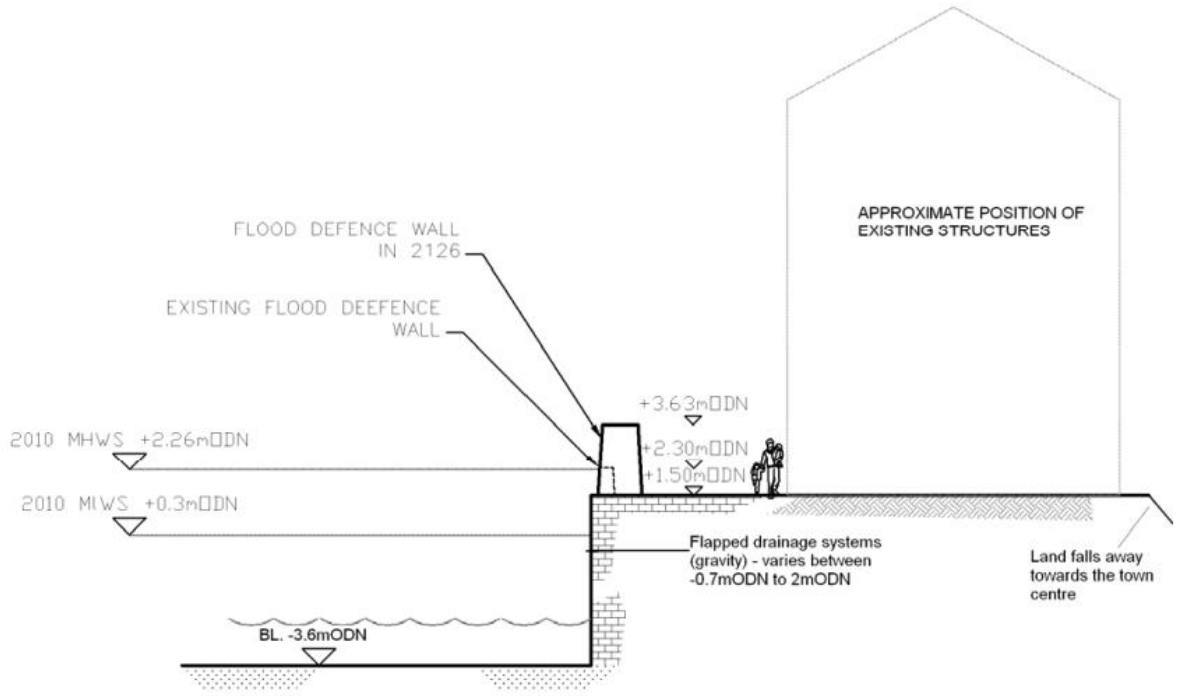
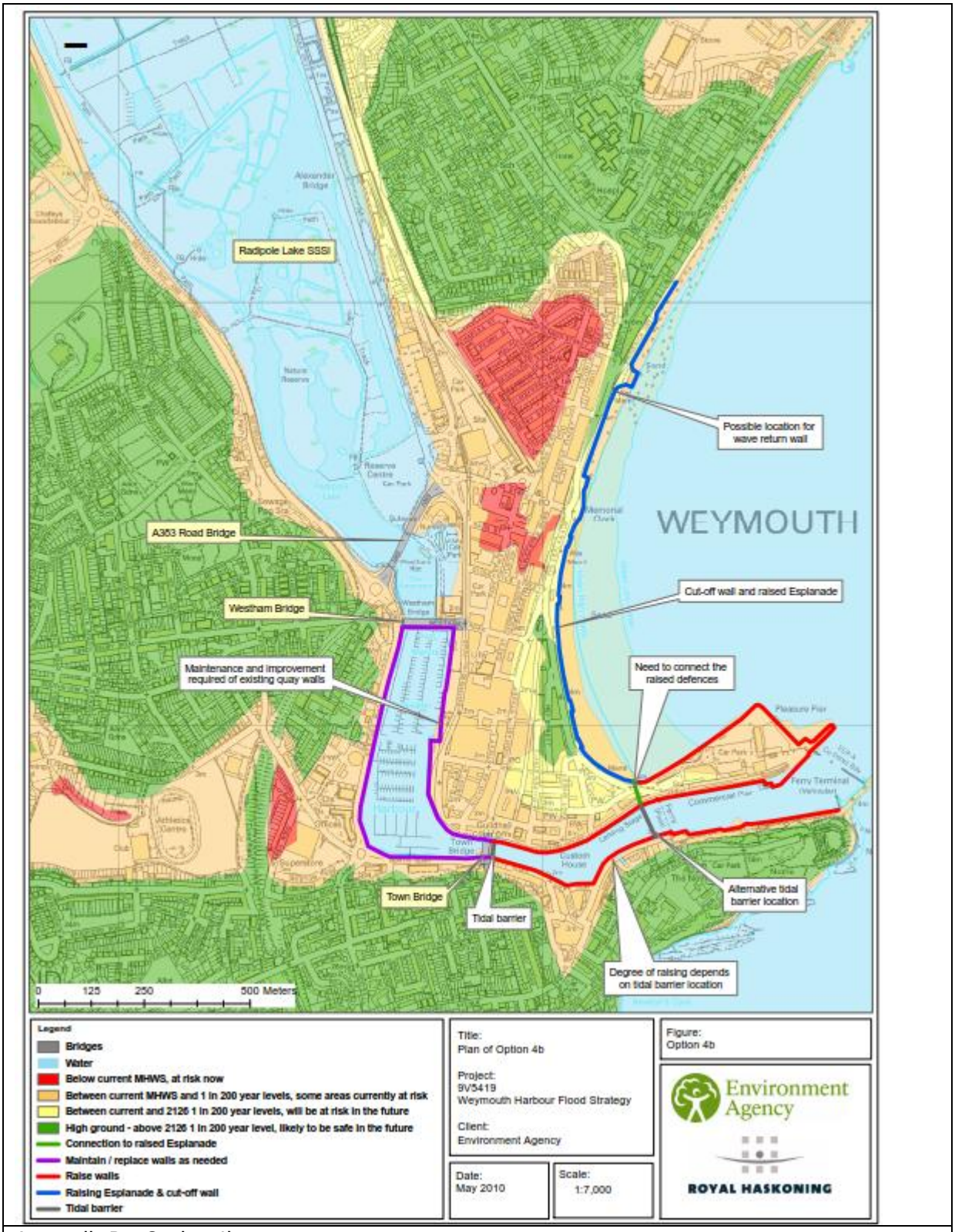


Figure 9.1 – An illustration of the walls required to protect against the 1 in 200 year flood by 2126.



Appendix D – Option 4b.

3. Weymouth & Portland Borough Council, Weymouth Town Centre Interim Flood Defence Contributions Policy, September 2011.

Background

3.5 Planning Policy Statement 3: Housing requires local authorities to carry out a Strategic Housing Land Availability Assessment (SHLAA). This identifies opportunities for delivering housing growth to demonstrate a five- and fifteen-year housing land supply. The assessment seeks to deliver sustainable development through maximising brownfield development opportunities. Sites have been identified in the town centre that not only provide for sustainable housing growth, but also offer wider regeneration benefits as part of mixed used schemes.

3.6 The town centre is the focus for housing, commercial and tourism development, involving major redevelopment schemes as well as smaller scale infilling.

Current and future flood risk

3.9 The town centre experiences flooding from the sea, both within and around the harbour and from overtopping of the Esplanade.

Based on the results of numerical modelling, the SFRA identified this area as at risk of flooding as a result of waves overtopping the beach from Weymouth Bay during a 1 in 10 year tidal event. This assessment was based on wave data from October 2004 which was thought to be roughly a 1 in 10 year wave event. The extent of the flooded area was shown to expand with an increasing return period, such that a large proportion of the town centre became at risk of flooding by the 1 in 200 year event.

3.10 Flooding from groundwater, due to percolation, is also an issue in this area. The town centre lies on a sand and shingle spit on top of Oxford Clay, with elevations only slightly above mean sea level. The sand and shingle is highly permeable and tidal and saline water is known to enter construction trenches during high tides.

3.11 Wessex Water currently pumps water out of the town centre. With the forecast rise in sea level, the pumping requirements are expected to increase. Formal monitoring of the pumping undertaken could provide information about the demand and therefore the available capacity. This will highlight whether the current arrangements can be maintained into the future.

Roles and Responsibilities

3.16 Since 2009, the EA has advised the Borough Council against permitting any new development in the centre, until or unless such time as there are plans to ensure the security of the area and its premises from coastal flooding.

Planning Policy Statement (PPS) 25: 'Development and Flood Risk' (Now NPPF)

4.1 PPS25 seeks to direct development away from areas of highest flood risk through the application of a 'sequential test', and to demonstrate that it is safe from flooding, taking account of climate change for the lifetime of the development. Flood risk is determined in terms of defined zones:

- Zone 1: a low probability of flooding.

- Zone 2: a medium probability of flooding.
- Zone 3a: a greater than 1 in 100 probability of river flooding, or 1 in 200 of coastal flooding in any one year.
- Zone 3b: the functional flood plain.

4.2 The sequential test requires development to be steered towards the areas of lowest flood risk (Zone 1). If this is not possible, then Zone 2 may be considered for less vulnerable development (subject to an exception test), and finally, Zone 3, the area of highest risk, again subject to an exception test.

4.3 All development falls within one of five flood vulnerability categories;

4.4 There are particular circumstances where residential and commercial development which is essential for the effective functioning of a town centre may be acceptable in flood zone 3, provided that it can be demonstrated that it passes the exception test (PPS25, Annex D) and can deal adequately with residual flood risk.

Draft National Planning Policy Framework

4.9 When determining planning applications, local planning authorities should ensure flood risk is not increased elsewhere and only consider development in flood risk areas appropriate where informed by a site-specific flood risk assessment following the Sequential Test, and if required the Exception Test, it can be demonstrated that:

- within the site, the most vulnerable development is located in areas of lowest flood risk unless there are overriding reasons to prefer a different location; and
- development is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed; and it gives priority to the use of sustainable drainage systems.

Joint Local Plan

4.14 Whilst noting the level of existing and future flood risk, the evidence supporting existing planning policy identifies Weymouth Town Centre as the primary driver for the local economy; the service centre for a wide area; and a significant tourist destination. It also recognises that the centre is in need of regeneration so that it can continue to fulfil this role, and that this requires new development and the intensification of existing uses. The alternative - to allow the loss or dispersal of facilities and/or the need for residents to travel greater distances to access services and jobs - is considered to be unsustainable.

4.15 Emerging planning policy has sought to promote the regeneration of the town centre, including new development, but subject to suitable design and its contribution towards the identified flood defence measures identified by the Flood Risk Management Strategy. Development beyond the town centre boundary will also continue to rely on the centre to provide the services and employment opportunities to sustain it as part of the wider economy, and will also be expected to contribute to its defences.

PROPOSED FLOOD DEFENCE SCHEME

5.1The Weymouth Flood Risk Management Strategy3, which identified a preferred option ('4b') for flood defences in Weymouth Town Centre, was endorsed by the Borough Council in July 2010 as a way forward to enable development to recommence in the town centre. The preferred option involves:

- construction of a tidal barrier;
- replacement of the existing downstream walls and quayside; and
- a scheme to prevent wave overtopping along The Esplanade.

5.2 To minimise the height of raising the walls along the quayside, the tidal barrier would be constructed near the entrance of Weymouth Harbour, but at a location that would not affect the operation of the ferry terminal. This would prevent tide levels exceeding the height of the existing quay walls.

5.5 More detailed investigations are required to refine and develop the preferred option. Therefore, in the early years, developer contributions would be put towards these necessary technical/feasibility studies to ensure that the most cost-effective scheme is being progressed.

Development Funding
6.3 Developers would make a payment towards flood defences on the basis of a tariff that ensures all new development in the town centre makes a contribution. Setting a standard level of contribution provides greater certainty to owners and developers so that they can factor in scheme costs from the outset.

Flood risk vulnerability:
7.17 Depending on flood risk vulnerability and the flood zone in which they are proposed, some of the uses listed above would not pass the exceptions test in PPS25 without the proposed defences. As a result, the tariff should be applied to development types according to flood risk vulnerability.

Residual Flood Risk

9.1 Flood risk to people and property can never be completely removed, but it can be managed. A residual risk will remain even after flood management or mitigation measures have been put in place. Examples of such risks include overtopping of defences; failure of a pumped drainage system; a severe flood event that exceeds a flood management design standard; or an intense rainfall event.

9.3 Sustainable Drainage Systems (SuDS) are not possible within the town centre due to the nature of ground water. Appropriate measures would have to be detailed as part of the required site specific FRA (Flood Risk Assessment) and would be enforced by planning conditions.

Planning for different levels of risk

9.10 By 2030 it is anticipated the 1 in 200 year extreme tide level in the town centre will have risen to 2.5m AOD – 200mm higher than the existing defence level and therefore resulting in overtopping. Ground and threshold levels behind the defences are generally in the order of 2.0 - 2.1m AOD, resulting in flood depths of around 0.4m diminishing away from the harbour to higher ground.

4. River Basin Management Plan, South West River Basin District, December 2009,

Dorset Catchment

Groundwaters are of vital importance in this catchment and they must be protected, as they support a significant proportion of the abstraction for public water supply and other uses, for example aquaculture.

The impact of agriculture is significant in this catchment, although large discharges from sewage treatment works and large numbers of small domestic discharges are also thought to be contributing to the problems.

There are 102 river water bodies in the catchment, with a combined length of 890 km, and one lake. Currently, 43 per cent of surface waters (318 km or 36 per cent of river length and the lake, Little Sea) achieve good or better ecological status/potential. Waters at good status now include the Crane, the Cale and the upper Piddle. The main reasons for less than good status are, in order, high levels of phosphate, impacted fish communities, low levels of dissolved oxygen and physical modification. 58 per cent of surface waters assessed for biology are at good or high biological status now.

By 2015, 23 per cent of surface waters in this catchment will improve for at least one element of good status. Eight river water bodies will improve to good ecological status by 2015, including three for phosphate; the Asker, Char and Horsepool. As a result of these improvements, 50 per cent of water bodies will achieve good ecological status by 2015, an improvement of 8 per cent from now.

Some key actions for this catchment

• Purbeck Keystone Project, a partnership approach supporting farming practices to encourage biodiversity and protect habitats through monitoring, water level management plan implementation and habitat management and creation work.
• The AFTERLIFE Project will follow on from the successful STREAM project to carry out river restoration on the River Frome.
• The England Catchment Sensitive Farming Delivery Initiative will continue to provide advice to farmers to reduce water pollution from agriculture in the Frome, Piddle and Stour catchments and the area draining to the Fleet Lagoon.
• Physical barriers to fish movement will be addressed, for example the Environment Agency project on the Stour at Lydden.
• The Environment Agency work with Wessex water to investigate the impact of water company assets on shellfish water quality and some sites of special scientific interest. Wessex Water will carry out improvements at sewage treatment works to manage population growth.
• Wessex Water will provide targeted advice to farmers to improve protection of drinking water sources from accidental contamination

Table 12 **Key statistics at a glance**

River and lake water bodies	Now	2015
% at good ecological status or potential	43	50
% assessed at good or high biological status (56 water bodies assessed)	58	72
% assessed at good chemical status (5 water bodies assessed)	100	100
% at good status overall (chemical and ecological)	43	50
% improving for one or more element in rivers		23

Figure 20 **Map showing the current ecological status/potential of rivers, canals and surface water transfers in this catchment**

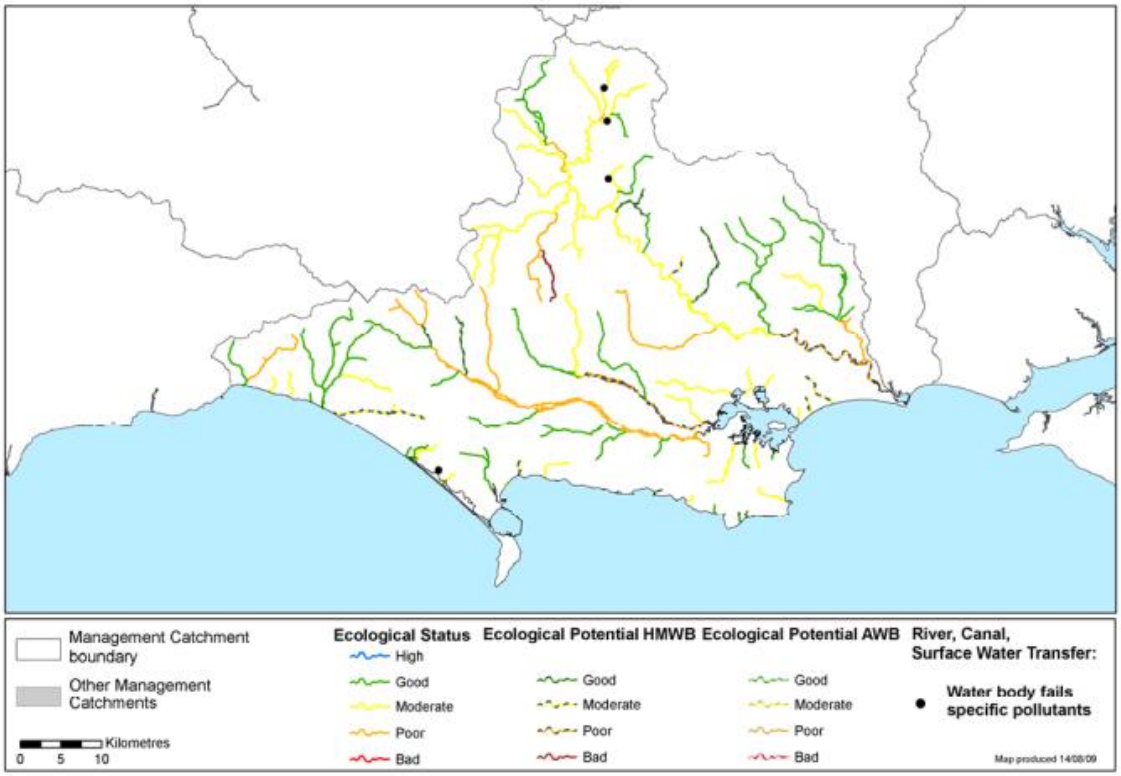


Table 12 and Figure 20 showing the current ecological status/potential of rivers, canals and surface water transfers in this catchment

5. West Dorset Catchment Flood Management Plan, Summary Report 2012

Weymouth Urban Areas

This area covers the Wey catchment including Upwey, Nottington, Broadwey and Weymouth, and also the Preston Brook and River Jordan. Included within the floodplain are the Lodmoor SSSI, Radipole Lake SSSI and the Portland Harbour Shore SSSI.

At Nottington, Broadwey, Upwey, Radipole and Westham, approximately 100 properties are at risk from a 1% annual probability flood on the River Wey. This number could increase to 275 in the future.

A further 150 properties are at risk from the River Jordan and Preston Brook. Roads in Weymouth and listed buildings are also at risk.

Various Environment Agency, Local Authority and private defences are in place in Nottington, Upton and Broadwey, to the west side of Radipole Lake, on either side of Weymouth harbour, and along the Preston Brook and River Jordan.

Flooding problems are also associated with a line of springs in Upwey.

A flood warning service is in place on the Wey. The maximum flood warning lead time increases downstream through the area up to approximately 6 hours in Weymouth.

There is a legacy of inappropriate development in the Wey floodplain, this includes a number of caravan and camping sites at risk. Over the longer term relocation options need investigation.

The vision and preferred policy

Policy Option 4 - we are already managing the flood risk effectively but we may need to take further actions to keep pace with climate change.

Under this policy some of the properties in the Wey catchment would continue to be undefended.

Depending on the measures taken, there is significant opportunity to benefit the environment under this policy option.

Proposed actions to implement the preferred policy

• Ensure spatial planning and development does not increase flood risk (PPS25).

• Review current surface water drainage in the Wey catchment. Assess possible solutions, identify and retro-fit Sustainable Drainage Systems (SuDs) where appropriate. Ensure that SuDs are incorporated as part of the development of the new Weymouth Relief Road.

• Investigate whether any inappropriate development in the Wey floodplain can be relocated in the medium to long term. Evaluate risk to critical infrastructure and whether this can be relocated.

• Review licences and possible relocation of the caravan and camping sites that are currently in the at risk areas, particularly from the River Jordan.

• Investigate whether any mitigation measures can be taken to resolve flooding problems in Upwey from a line of springs.

• Carry out a siltation study in the Wey catchment in partnership with the RSPB, and in support of the RSPB's 'Siltation Study at Radipole Lake SSSI', which will inform site management at Radipole Lake as well as informing flood risk management.

• Use the results of the siltation study to review current drainage issues at Radipole Lake and whether the flood risk to properties in Radipole village can be reduced.

• Investigate opportunity for creation of floodplain grazing marsh for the benefit of flood risk management.

APPENDIX B

ECOLOGICAL DESIGNATED SITES

Appendix XXX Designated Sites within 5km

Lodmoor Gateway

Constraint		Distance to site	Description
Designated Site	Chesil Beach and the Fleet	4 km south west	**Designated:** Ramsar; Special Protection Area (SPA); Special Area of Conservation (SAC); Site of Special Scientific Interest (SSSI); Inshore Special Area of Conservation with Marine Components and; Inshore Special Protection Area with Marine Components. Ramsar criterion: The Fleet is an outstanding example of rare lagoon habitat and is the largest of its kind in the UK. In Europe lagoons are classified as a priority habitat by the EC Habitats and Species Directive. The site also supports rare saltmarsh habitats. Chesil Beach and the Fleet are designated under Ramsar criterion 2, 3, 4, 6 and 8. SPA Qualification: This site is important for dark-bellied Brent goose, 1460 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3) SAC Qualification: Chesil Beach and the Fleet are designated SAC for the following Annex I habitats that are a primary reason for selection of this site: • Coastal lagoons • Annual vegetation of drift lines • Perennial vegetation of stony banks • Mediterranean and thermo-Atlantic *halophilous* scrubs • Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site are Atlantic Salt Meadows. SSSI Qualification: Chesil Beach is one of the three major shingle structures in Britain and is of international importance for coastal geomorphology. Along about half its length it encloses the Fleet, the largest tidal lagoon in Britain. This, together with the Beach and associated habitats, incorporates a site that is of international importance to wildlife
	Crookhill Brick Pit	3.8 km west	**Designated:** SAC, SSSI, Local Nature Reserve (LNR): Nationally important site supporting an exceptional population of great crested newts. The LNR, SSSI and SAC include the breeding ponds and the terrestrial habitat that is used by the newts for resting, foraging and hibernation.

	Isle of Portland to Studland Cliffs	1.2 km north east	**Designated**: SAC and Inshore Special Area of Conservation with Marine Components (GB) SAC Qualification**:** This site is designated a SAC for its vegetated sea cliffs (typical of the Atlantic and Baltic Coasts), semi-natural dry grasslands and scrubland facies on calcareous substrates (considered important orchid sites), its annual vegetation of drift lines and for early gentian
	Chalbury Hill and Quarry	2.2 km north east	**Designated:** SSSI: SSSI Qualification: This site includes a former limestone quarry of outstanding geological importance, together with the steep slopes up to a hill fort which support good quality, well grazed calcareous grassland.
	South Dorset Coast	1.2 km north east	**Designation:** SSSI: SSSI Qualification: This stretch of coastline combines internationally important geological interest with a rich range of wildlife habitats supporting populations of several rare plants and animals.
	Lodmoor	Immediately adjacent	**Designated:** SSSI: SSSI Qualification: An area of reedbed and brackish grassland, Lodmoor is of outstanding interest for birds. Construction of a sea wall in the early 20th century has prevented regular tidal inundation, but the low-lying land is still influenced by saline groundwater. Frequent flooding by freshwater occurs, especially in winter. The site is notable for waders on passage and wildfowl in winter, and several nationally rare species breed. The reed/scrub areas support breeding bird species of particular note. Bearded tit and Cetti's warbler nest regularly, while marsh warbler and Savi's warbler may breed. Various wildfowl are present in winter, depending on the extent of flooding. However, the site is perhaps best known for its great range of wading birds. In addition to regular winter gatherings of many of the commoner species such as lapwing and snipe, there are small numbers of more uncommon waders including jack snipe, greenshank and ruff. Passage migrants regularly include wood and green sandpipers, spotted redshank and wimbrel. Scarce and more exotic species frequently occur.
	Lorton	1000 m north west	**Designated:** SSSI SSSI Qualification: The area supports a neutral grassland community now much reduced throughout Britain as well as the largest remaining area of semi-natural woodland within the Borough, part of which is ancient in origin and classified as ancient woodland.

	Radipole Lake	850 m west	**Designated:** SSSI SSSI Qualification: More than 50 bird species breed at this site, including a very large population of reed warbler and rare species such as Cetti's warbler, bearded tit and nightingale. The reedbeds support important pre-migration roosts of sand martin, house martin, swallow and yellow wagtail. There is also a very large passage of sedge warbler in early autumn. The site is important for wintering wildfowl with the regular flock of shoveler of particular note. Radipole Lake is also rich in invertebrates. Butterflies and dragonflies are well represented, and more than 450 species of moths have been recorded. The spider *Argiope bruenichii* is locally frequent.
	White Horse Hill	3.1 km north east	**Designated:** SSSI: SSSI Qualification: White Horse Hill forms part of the steep south-facing scarp at the southern edge of the Dorset chalk, overlooking the valley of the River Jordan, north of Weymouth. The site overlies bands of Upper, Middle and Lower Chalk on which herb-rich grassland communities have developed. These communities, unmodified by agricultural improvement, are now nationally rare and here support a wide range of uncommon butterfly species.
	Upwey Quarries and Bincombe Down	3.7 km north	**Designation:** SSSI SSSI Qualification: The ancient Upwey Quarries expose a sequence through the lower half of the Purbeck Beds, from the basal Dirt and Cap beds to the Cherty Freshwater and Cinder beds: making this the thickest sequence in Dorset away from the coastal sections of the Lulworth–Durlston outcrop.
	Portland Harbour Shore	1.8 km south	**Designation**: SSSI SSSI Qualification: The cliffs along the north-western shore of Portland Harbour are of outstanding geological importance. The site also includes maritime grassland and the intertidal shore itself.
	Radipole Community Woodland	1.3 km west	**Designation:** LNR LNR Qualification: Variety of tree and shrub species including oak, ash, wayfaring, field maple, dogwood and hawthorn. Species are mixed across the site with some small group plantings. The site is situated on Oxford Clay and in natural circumstances would develop into damp oak woodland.
	Radipole School	1.6 km west	**Designation:** LNR LNR Qualification: Comprises one and a half hectares of protected woodland and meadow.

	Dorset	1.5 km north	**Designation:** Area of Outstanding Natural Beauty (AONB) AONB Qualification**:** The AONB covers 44% of Dorset and includes the World Heritage Site The Jurassic Coast.
	Chesil Beach and Stennis Ledges	4.8 km south west	**Marine Conservation Zones (England)**

Constraint		Distance to site	Description
Designated Site	Chesil Beach and the Fleet	2.8 km south west	**Designated:** Ramsar; Special Protection Area (SPA); Special Area of Conservation (SAC); Site of Special Scientific Interest (SSSI); Inshore Special Area of Conservation with Marine Components and; Inshore Special Protection Area with Marine Components. Ramsar criterion: The Fleet is an outstanding example of rare lagoon habitat and is the largest of its kind in the UK. In Europe lagoons are classified as a priority habitat by the EC Habitats and Species Directive. The site also supports rare saltmarsh habitats. Chesil Beach and the Fleet are designated under Ramsar criterion 2, 3, 4, 6 and 8. SPA Qualification: This site is important for dark-bellied Brent goose (*Branta bernicla bernicla*), 1460 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3) SAC Qualification: Chesil Beach and the Fleet are designated SAC for the following Annex I habitats that are a primary reason for selection of this site: • Coastal lagoons • Annual vegetation of drift lines • Perennial vegetation of stony banks • Mediterranean and thermo-Atlantic *halophilous* scrubs (*Sarcocornetea fruticosi*) • Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) SSSI Qualification: Chesil Beach is one of the three major shingle structures in Britain and is of international importance for coastal geomorphology. Along about half its length it encloses the Fleet, the largest tidal lagoon in Britain. This, together with the Beach and associated habitats, incorporates a site that is of international importance to wildlife
	Crookhill Brick Pit	3 km west	**Designated:** SAC, SSSI, Local nature Reserve (LNR): Nationally important site supporting an exceptional population of great crested newts (*Triturus cristatus*). The LNR, SSSI and SAC include the breeding ponds and the terrestrial habitat that is used by the newts for resting, foraging and hibernation.

Constraint		Distance to site	Description
	Isle of Portland to Studland Cliffs	2.7 km north east	**Designated**: SAC and Inshore Special Area of Conservation with Marine Components (GB) SAC Qualification**:** This site is designated a SAC for its vegetated sea cliffs (typical of the Atlantic and Baltic Coasts), semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (considered important orchid sites), its annual vegetation of drift lines and for early gentian (*Gentianella anglica*)
	Chalbury Hill and Quarry	4 km north east	**Designated:** SSSI: SSSI Qualification: This site includes a former limestone quarry of outstanding geological importance, together with the steep slopes up to a hill fort which support good quality, well grazed calcareous grassland.
	South Dorset Coast	2.7 km north east	**Designation:** SSSI: SSSI Qualification: This stretch of coastline combines internationally important geological interest with a rich range of wildlife habitats supporting populations of several rare plants and animals.
	White Horse Hill	4.8 km north east	**Designated:** SSSI: SSSI Qualification: White Horse Hill forms part of the steep south-facing scarp at the southern edge of the Dorset chalk, overlooking the valley of the River Jordan, north of Weymouth. The site overlies bands of Upper, Middle and Lower Chalk on which herb-rich grassland communities have developed. These communities, unmodified by agricultural improvement, are now nationally rare and here support a wide range of uncommon butterfly species.

Constraint		Distance to site	Description
	Lodmoor	1.5 km north east	**Designated:** SSSI: SSSI Qualification: An area of reedbed and brackish grassland, Lodmoor is of outstanding interest for birds. Construction of a sea wall in the early 20th century has prevented regular tidal inundation, but the low-lying land is still influenced by saline groundwater. Frequent flooding by freshwater occurs, especially in winter. The site is notable for waders on passage and wildfowl in winter, and several nationally rare species breed. The reed/scrub areas support breeding bird species of particular note. Bearded tit (*Panurus biarmicus*) and Cetti's warbler (*Cettia cetti*) nest regularly, while marsh warbler (*Acrocephalus palustris*) and Savi's warbler (*Locustella luscinoides*) may breed. Various wildfowl are present in winter, depending on the extent of flooding. However, the site is perhaps best known for its great range of wading birds. In addition to regular winter gatherings of many of the commoner species such as lapwing (Vanellus vanellus) and snipe (*Gallinago gallinago*), there are small numbers of more uncommon waders including jack snipe (*Lymnocryates minimus*), greenshank (*Tringa nebularia*) and ruff (*Philomachus pugnax*). Passage migrants regularly include wood and green sandpipers (*Tringa glareola* and *T. ochropus*), spotted redshank (*T. erythrepus*) and wimbrel (*Numenius phaeopus*). Scarce and more exotic species frequently occur.
	Lorton	2 km north	**Designated:** SSSI SSSI Qualification: The area supports a neutral grassland community now much reduced throughout Britain as well as the largest remaining area of semi-natural woodland within the Borough, part of which is ancient in origin and classified as ancient woodland.
	Radipole Lake	Immediately adjacent to site	**Designated:** SSSI SSSI Qualification: More than 50 bird species breed at this site, including a very large population of reed warbler (Acrocephalus scirpaceus) and rare species such as Cetti's warbler, bearded tit and nightingale (Luscinia megarhyncos). The reedbeds support important pre-migration roosts of sand martin (*Riparia riparia*), house martin (Delichon urbica), swallow (*Hirundo rustica*) and yellow wagtail (*Motacilla flava*). There is also a very large passage of sedge warbler (*Acrocephalus schoenobaenus*) in early autumn. The site is important for wintering wildfowl with the regular flock of shoveler (*Anas clypeata*) of particular note. Radipole Lake is also rich in invertebrates. Butterflies and dragonflies are well represented, and more than 450 species of moths have been recorded. The spider (*Argiope bruenichii*) is locally frequent.

Constraint		Distance to site	Description
	Portland Harbour Shore	800 m south east	**Designation**: SSSI SSSI Qualification: The cliffs along the north-western shore of Portland Harbour are of outstanding geological importance. The site also includes maritime grassland and the intertidal shore itself.
	Radipole Community Woodland	1.65 km north west	**Designation:** LNR LNR Qualification: Variety of tree and shrub species including oak, ash, wayfaring, field maple, dogwood and hawthorn. Species are mixed across the site with some small group plantings. The site is situated on Oxford Clay and in natural circumstances would develop into damp oak woodland.
	Radipole School	2 km north west	**Designation:** LNR LNR Qualification: Comprises one and a half hectares of protected woodland and meadow.
	Dorset	3.5 km west	**Designation:** Area of Outstanding Natural Beauty (AONB) **AONB Qualification:** The AONB covers 44% of Dorset and includes the World Heritage Site The Jurassic Coast.
	Chesil Beach and Stennis Ledges	3.5 km south west	**Marine Conservation Zones (England)**

Commercial Road

Constraint		Distance to site	Description
Designated Site	Chesil Beach and the Fleet	2.8 km south west	**Designated:** Ramsar; Special Protection Area (SPA); Special Area of Conservation (SAC); Site of Special Scientific Interest (SSSI); Inshore Special Area of Conservation with Marine Components and; Inshore Special Protection Area with Marine Components. Ramsar criterion: The Fleet is an outstanding example of rare lagoon habitat and is the largest of its kind in the UK. In Europe lagoons are classified as a priority habitat by the EC Habitats and Species Directive. The site also supports rare saltmarsh habitats. Chesil Beach and the Fleet are designated under Ramsar criterion 2, 3, 4, 6 and 8. SPA Qualification: This site is important for dark-bellied Brent goose, 1460 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3) SAC Qualification: Chesil Beach and the Fleet are designated SAC for the following Annex I habitats that are a primary reason for selection of this site: • Coastal lagoons • Annual vegetation of drift lines • Perennial vegetation of stony banks • Mediterranean and thermo-Atlantic *halophilous* scrubs • Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • Atlantic salt meadows SSSI Qualification: Chesil Beach is one of the three major shingle structures in Britain and is of international importance for coastal geomorphology. Along about half its length it encloses the Fleet, the largest tidal lagoon in Britain. This, together with the Beach and associated habitats, incorporates a site that is of international importance to wildlife
	Crookhill Brick Pit	3.2 km west	**Designated:** SAC, SSSI, Local Nature Reserve (LNR): Nationally important site supporting an exceptional population of great crested newts. The LNR, SSSI and SAC include the breeding ponds and the terrestrial habitat that is used by the newts for resting, foraging and hibernation.

Constraint		Distance to site	Description
	Isle of Portland to Studland Cliffs	3 km north east	**Designated**: SAC and Inshore Special Area of Conservation with Marine Components (GB) SAC Qualification**:** This site is designated a SAC for its vegetated sea cliffs (typical of the Atlantic and Baltic Coasts), semi-natural dry grasslands and scrubland facies on calcareous substrates (considered important orchid sites), its annual vegetation of drift lines and for early gentian
	Chalbury Hill and Quarry	4.3 km north	**Designated:** SSSI: SSSI Qualification: This site includes a former limestone quarry of outstanding geological importance, together with the steep slopes up to a hill fort which support good quality, well grazed calcareous grassland.
	South Dorset Coast	3 km north east	**Designation:** SSSI: SSSI Qualification: This stretch of coastline combines internationally important geological interest with a rich range of wildlife habitats supporting populations of several rare plants and animals.
	Isle of Portland	4.6 km south	**Designation:** SSSI SSSI Qualification: The Isle of Portland is internationally important for its geological interest. The Island has a rich assemblage of plants and animals associated with limestone grassland, scrub and coastal habitats, a combination of features and species unrepeated elsewhere. Portland is also a famous site for the study of bird migration centred on the observatory at the Bill.
	Lodmoor	1.7 km north east	**Designated**: SSSI: SSSI Qualification: An area of reedbed and brackish grassland, Lodmoor is of outstanding interest for birds. Construction of a sea wall in the early 20th century has prevented regular tidal inundation, but the low-lying land is still influenced by saline groundwater. Frequent flooding by freshwater occurs, especially in winter. The site is notable for waders on passage and wildfowl in winter, and several nationally rare species breed. The reed/scrub areas support breeding bird species of particular note. Bearded tit and Cetti's warbler nest regularly, while marsh warbler and Savi's warbler may breed. Various wildfowl are present in winter, depending on the extent of flooding. However, the site is perhaps best known for its great range of wading birds. In addition to regular winter gatherings of many of the commoner species such as lapwing and snipe, there are small numbers of more uncommon waders including jack snipe, greenshank and ruff. Passage migrants regularly include wood and green sandpipers, spotted redshank and wimbrel. Scarce and more exotic species frequently occur.

Constraint		Distance to site	Description
	Lorton	2.5 km north	**Designated:** SSSI SSSI Qualification: The area supports a neutral grassland community now much reduced throughout Britain as well as the largest remaining area of semi-natural woodland within the Borough, part of which is ancient in origin and classified as ancient woodland.
	Radipole Lake	Immediately adjacent	**Designated:** SSSI SSSI Qualification: More than 50 bird species breed at this site, including a very large population of reed warbler and rare species such as Cetti's warbler, bearded tit and nightingale. The reedbeds support important pre-migration roosts of sand martin, house martin, swallow and yellow wagtail. There is also a very large passage of sedge warbler in early autumn. The site is important for wintering wildfowl with the regular flock of shoveler of particular note. Radipole Lake is also rich in invertebrates. Butterflies and dragonflies are well represented, and more than 450 species of moths have been recorded. The spider *Argiope bruenichii* is locally frequent.
	Portland Harbour Shore	610 m south east	**Designation**: SSSI SSSI Qualification: The cliffs along the north-western shore of Portland Harbour are of outstanding geological importance. The site also includes maritime grassland and the intertidal shore itself.
	Radipole Community Woodland	2 km north west	**Designation:** LNR LNR Qualification: Variety of tree and shrub species including oak, ash, wayfaring, field maple, dogwood and hawthorn. Species are mixed across the site with some small group plantings. The site is situated on Oxford Clay and in natural circumstances would develop into damp oak woodland.
	Radipole School	2.4 km north west	**Designation:** LNR LNR Qualification: Comprises one and a half hectares of protected woodland and meadow.
	Dorset	3.7 km west	**Designation:** Area of Outstanding Natural Beauty (AONB) **AONB Qualification:** The AONB covers 44% of Dorset and includes the World Heritage Site The Jurassic Coast.
	Chesil Beach and Stennis Ledges	3.4 km south west	**Marine Conservation Zones (England)**

Harbourside

Constraint		Distance to site	Description
Designated Site	Chesil Beach and the Fleet	2.5 km west	**Designated:** Ramsar; Special Protection Area (SPA); Special Area of Conservation (SAC); Site of Special Scientific Interest (SSSI); Inshore Special Area of Conservation with Marine Components and; Inshore Special Protection Area with Marine Components. Ramsar criterion: The Fleet is an outstanding example of rare lagoon habitat and is the largest of its kind in the UK. In Europe lagoons are classified as a priority habitat by the EC Habitats and Species Directive. The site also supports rare saltmarsh habitats. Chesil Beach and the Fleet are designated under Ramsar criterion 2, 3, 4, 6 and 8. SPA Qualification: This site is important for dark-bellied Brent goose, 1460 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3) SAC Qualification: Chesil Beach and the Fleet are designated SAC for the following Annex I habitats that are a primary reason for selection of this site: • Coastal lagoons • Annual vegetation of drift lines • Perennial vegetation of stony banks • Mediterranean and thermo-Atlantic *halophilous* scrubs • Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • Atlantic salt meadows SSSI Qualification: Chesil Beach is one of the three major shingle structures in Britain and is of international importance for coastal geomorphology. Along about half its length it encloses the Fleet, the largest tidal lagoon in Britain. This, together with the Beach and associated habitats, incorporates a site that is of international importance to wildlife
	Crookhill Brick Pit	3.02 km west	**Designated:** SAC, SSSI, Local Nature Reserve (LNR): Nationally important site supporting an exceptional population of great crested newts. The LNR, SSSI and SAC include the breeding ponds and the terrestrial habitat that is used by the newts for resting, foraging and hibernation.

Constraint		Distance to site	Description
	Isle of Portland to Studland Cliffs	3.3 km north east	**Designated**: SAC and Inshore Special Area of Conservation with Marine Components (GB) SAC Qualification**:** This site is designated a SAC for its vegetated sea cliffs (typical of the Atlantic and Baltic Coasts), semi-natural dry grasslands and scrubland facies on calcareous substrates (considered important orchid sites), its annual vegetation of drift lines and for early gentian
	Chalbury Hill and Quarry	4.7 km north east	**Designated:** SSSI: SSSI Qualification: This site includes a former limestone quarry of outstanding geological importance, together with the steep slopes up to a hill fort which support good quality, well grazed calcareous grassland.
	South Dorset Coast	3.3 km north east	**Designation:** SSSI: SSSI Qualification: This stretch of coastline combines internationally important geological interest with a rich range of wildlife habitats supporting populations of several rare plants and animals.
	Isle of Portland	4.4 km south	**Designation:** SSSI SSSI Qualification: The Isle of Portland is internationally important for its geological interest. The Island has a rich assemblage of plants and animals associated with limestone grassland, scrub and coastal habitats, a combination of features and species unrepeated elsewhere. Portland is also a famous site for the study of bird migration centred on the observatory at the Bill.
	Lodmoor	2.4 km north	**Designated:** SSSI: SSSI Qualification: An area of reedbed and brackish grassland, Lodmoor is of outstanding interest for birds. Construction of a sea wall in the early 20th century has prevented regular tidal inundation, but the low-lying land is still influenced by saline groundwater. Frequent flooding by freshwater occurs, especially in winter. The site is notable for waders on passage and wildfowl in winter, and several nationally rare species breed. The reed/scrub areas support breeding bird species of particular note. Bearded tit and Cetti's warbler nest regularly, while marsh warbler and Savi's warbler may breed. Various wildfowl are present in winter, depending on the extent of flooding. However, the site is perhaps best known for its great range of wading birds. In addition to regular winter gatherings of many of the commoner species such as lapwing and snipe, there are small numbers of more uncommon waders including jack snipe, greenshank and ruff. Passage migrants regularly include wood and green sandpipers, spotted redshank and wimbrel. Scarce and more exotic species frequently occur.

Constraint		Distance to site	Description
	Lorton	2.8 km north	**Designated:** SSSI SSSI Qualification: The area supports a neutral grassland community now much reduced throughout Britain as well as the largest remaining area of semi-natural woodland within the Borough, part of which is ancient in origin and classified as ancient woodland.
	Radipole Lake	140 m north	**Designated:** SSSI SSSI Qualification: More than 50 bird species breed at this site, including a very large population of reed warbler and rare species such as Cetti's warbler, bearded tit and nightingale. The reedbeds support important pre-migration roosts of sand martin, house martin, swallow and yellow wagtail. There is also a very large passage of sedge warbler in early autumn. The site is important for wintering wildfowl with the regular flock of shoveler of particular note. Radipole Lake is also rich in invertebrates. Butterflies and dragonflies are well represented, and more than 450 species of moths have been recorded. The spider *Argiope bruenichii* is locally frequent.
	Portland Harbour Shore	470 m south east	**Designation**: SSSI SSSI Qualification: The cliffs along the north-western shore of Portland Harbour are of outstanding geological importance. The site also includes maritime grassland and the intertidal shore itself.
	Radipole Community Woodland	2.3 km north east	**Designation:** LNR LNR Qualification: Variety of tree and shrub species including oak, ash, wayfaring, field maple, dogwood and hawthorn. Species are mixed across the site with some small group plantings. The site is situated on Oxford Clay and in natural circumstances would develop into damp oak woodland.
	Radipole School	2.7 km north east	**Designation:** LNR LNR Qualification: Comprises one and a half hectares of protected woodland and meadow.
	Dorset	3.7 km west	**Designation:** Area of Outstanding Natural Beauty (AONB) **AONB Qualification:** The AONB covers 44% of Dorset and includes the World Heritage Site The Jurassic Coast.
	Chesil Beach and Stennis Ledges	3 km south west	**Marine Conservation Zones (England)**

Peninsula

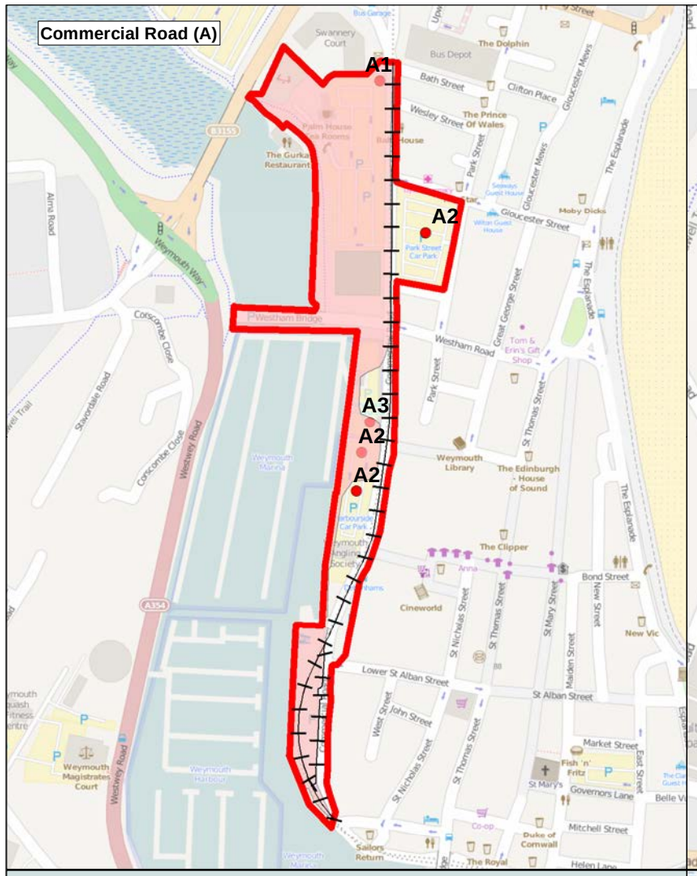
Constraint		Distance to site	Description
Designated Site	Chesil Beach and the Fleet	3.01 km south west	**Designated:** Ramsar; Special Protection Area (SPA); Special Area of Conservation (SAC); Site of Special Scientific Interest (SSSI); Inshore Special Area of Conservation with Marine Components and; Inshore Special Protection Area with Marine Components. Ramsar criterion: The Fleet is an outstanding example of rare lagoon habitat and is the largest of its kind in the UK. In Europe lagoons are classified as a priority habitat by the EC Habitats and Species Directive. The site also supports rare saltmarsh habitats. Chesil Beach and the Fleet are designated under Ramsar criterion 2, 3, 4, 6 and 8. SPA Qualification: This site is important for dark-bellied Brent goose, 1460 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3) SAC Qualification: Chesil Beach and the Fleet are designated SAC for the following Annex I habitats that are a primary reason for selection of this site: • Coastal lagoons • Annual vegetation of drift lines • Perennial vegetation of stony banks • Mediterranean and thermo-Atlantic *halophilous* scrubs • Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site • Atlantic salt meadows SSSI Qualification: Chesil Beach is one of the three major shingle structures in Britain and is of international importance for coastal geomorphology. Along about half its length it encloses the Fleet, the largest tidal lagoon in Britain. This, together with the Beach and associated habitats, incorporates a site that is of international importance to wildlife
	Crookhill Brick Pit	3.8 km west	**Designated:** SAC, SSSI, Local Nature Reserve (LNR): Nationally important site supporting an exceptional population of great crested newts. The LNR, SSSI and SAC include the breeding ponds and the terrestrial habitat that is used by the newts for resting, foraging and hibernation.
	Isle of	2.9 km north	**Designated**: SAC and Inshore Special Area of

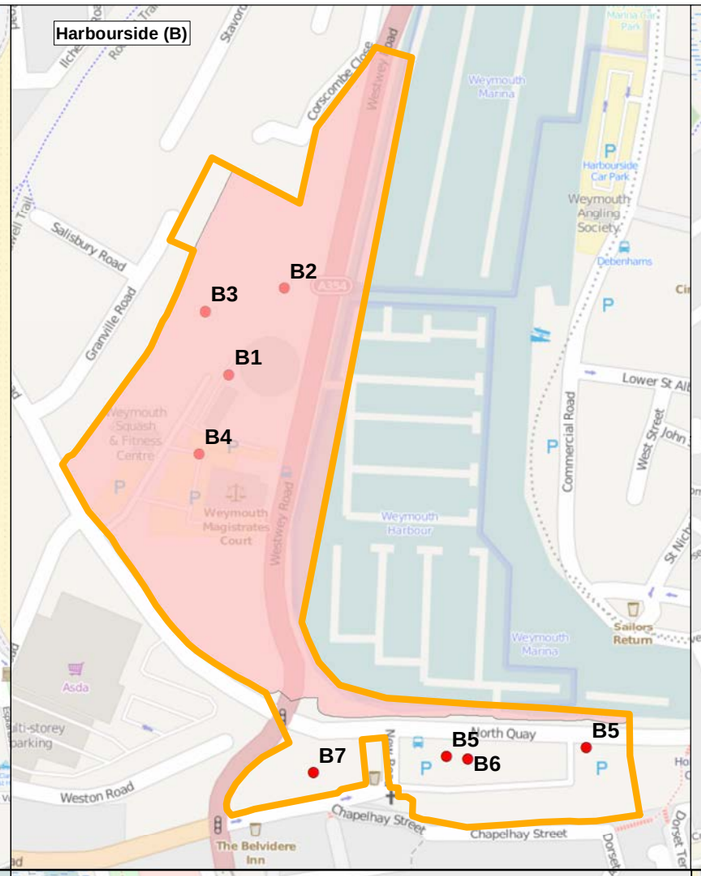
Constraint		Distance to site	Description
	Portland to Studland Cliffs	east	Conservation with Marine Components (GB) SAC Qualification**:** This site is designated a SAC for its vegetated sea cliffs (typical of the Atlantic and Baltic Coasts), semi-natural dry grasslands and scrubland facies on calcareous substrates (considered important orchid sites), its annual vegetation of drift lines and for early gentian
	Chalbury Hill and Quarry	4.6 km north	**Designated:** SSSI: SSSI Qualification: This site includes a former limestone quarry of outstanding geological importance, together with the steep slopes up to a hill fort which support good quality, well grazed calcareous grassland.
	South Dorset Coast	2.9 km north east	**Designation:** SSSI: SSSI Qualification: This stretch of coastline combines internationally important geological interest with a rich range of wildlife habitats supporting populations of several rare plants and animals.
	Lodmoor	1.9 km north	**Designated**: SSSI: SSSI Qualification: An area of reedbed and brackish grassland, Lodmoor is of outstanding interest for birds. Construction of a sea wall in the early 20th century has prevented regular tidal inundation, but the low-lying land is still influenced by saline groundwater. Frequent flooding by freshwater occurs, especially in winter. The site is notable for waders on passage and wildfowl in winter, and several nationally rare species breed. The reed/scrub areas support breeding bird species of particular note. Bearded tit and Cetti's warbler nest regularly, while marsh warbler and Savi's warbler may breed. Various wildfowl are present in winter, depending on the extent of flooding. However, the site is perhaps best known for its great range of wading birds. In addition to regular winter gatherings of many of the commoner species such as lapwing and snipe, there are small numbers of more uncommon waders including jack snipe, greenshank and ruff. Passage migrants regularly include wood and green sandpipers, spotted redshank and wimbrel. Scarce and more exotic species frequently occur.
	Lorton	3.1 km north	**Designated:** SSSI SSSI Qualification: The area supports a neutral grassland community now much reduced throughout Britain as well as the largest remaining area of semi-natural woodland within the Borough, part of which is ancient in origin and classified as ancient woodland.
	Radipole Lake	610 m north west	**Designated:** SSSI SSSI Qualification: More than 50 bird species breed at this site, including a very large population of reed

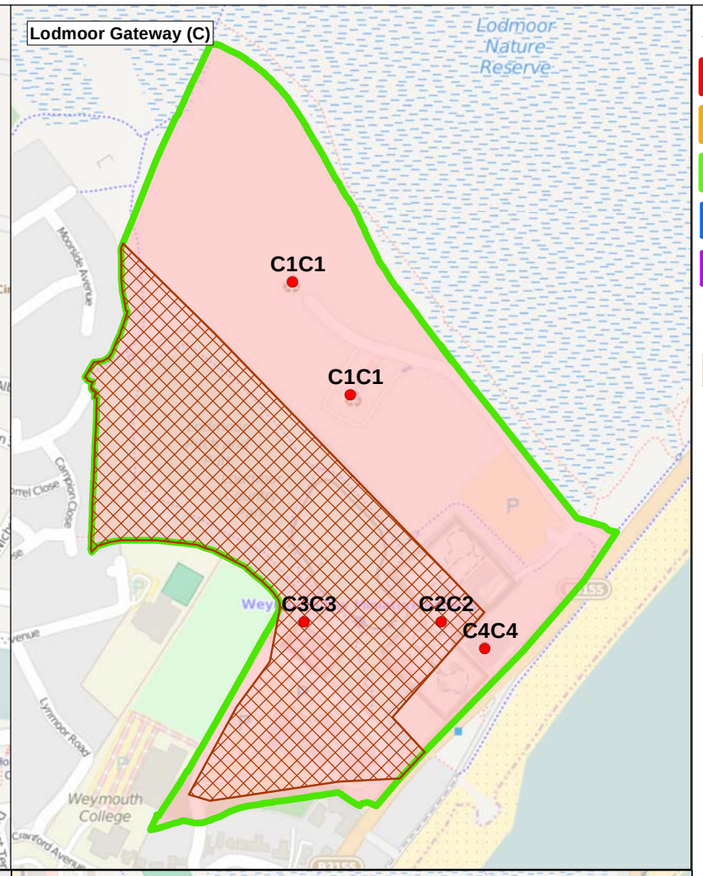
Constraint		Distance to site	Description
			warbler and rare species such as Cetti's warbler, bearded tit and nightingale. The reedbeds support important pre-migration roosts of sand martin, house martin, swallow and yellow wagtail. There is also a very large passage of sedge warbler in early autumn. The site is important for wintering wildfowl with the regular flock of shoveler of particular note. Radipole Lake is also rich in invertebrates. Butterflies and dragonflies are well represented, and more than 450 species of moths have been recorded. The spider *Argiope bruenichii* is locally frequent.
	Portland Harbour Shore	75 m south	**Designation**: SSSI SSSI Qualification: The cliffs along the north-western shore of Portland Harbour are of outstanding geological importance. The site also includes maritime grassland and the intertidal shore itself.
	Isle of Portland	4.5 km south	**Designation:** SSSI SSSI Qualification: The Isle of Portland is internationally important for its geological interest. The Island has a rich assemblage of plants and animals associated with limestone grassland, scrub and coastal habitats, a combination of features and species unrepeated elsewhere. Portland is also a famous site for the study of bird migration centred on the observatory at the Bill.
	Radipole Community Woodland	2.8 km north west	**Designation: LNR** LNR Qualification: Variety of tree and shrub species including oak, ash, wayfaring, field maple, dogwood and hawthorn. Species are mixed across the site with some small group plantings. The site is situated on Oxford Clay and in natural circumstances would develop into damp oak woodland.
	Radipole School	3.2 km north west	**Designation: LNR** LNR Qualification: Comprises one and a half hectares of protected woodland and meadow.
	Dorset	3.5 km north east	**Designation:** Area of Outstanding Natural Beauty (AONB) **AONB Qualification:** The AONB covers 44% of Dorset and includes the World Heritage Site The Jurassic Coast.
	Chesil Beach and Stennis Ledges	3.6 km south west	**Marine Conservation Zones (England)**

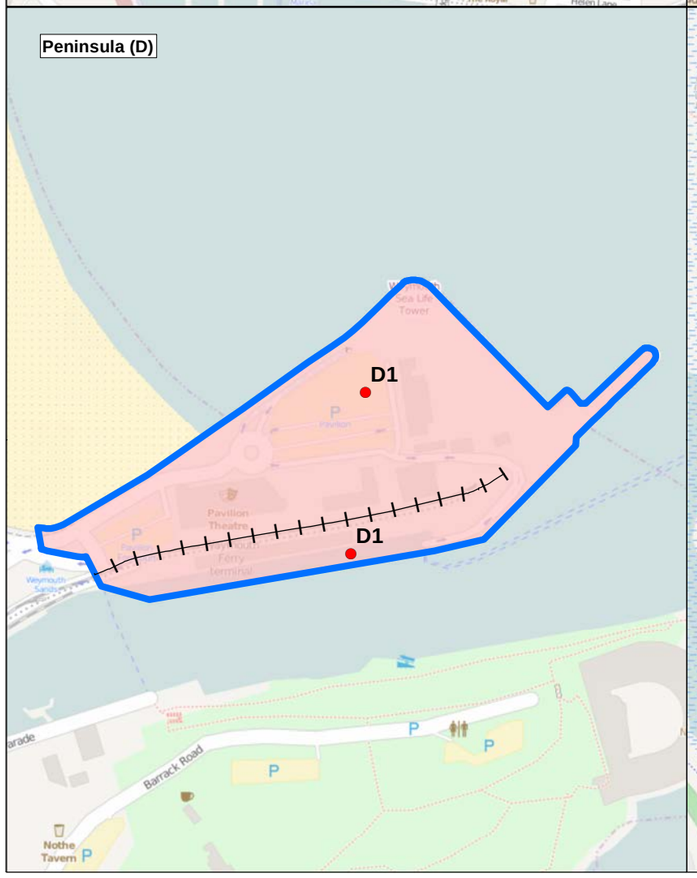
APPENDIX C

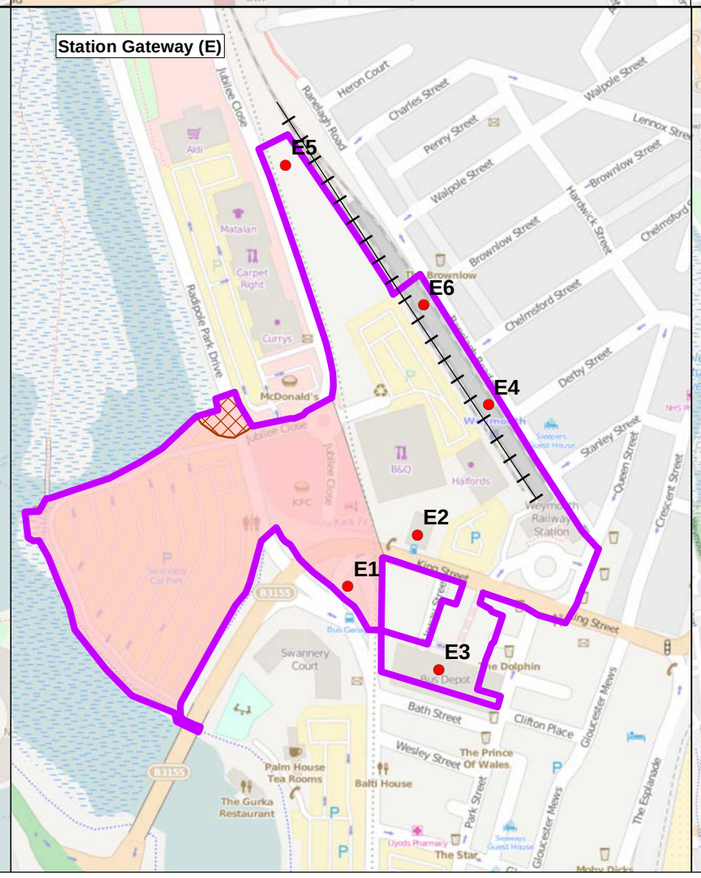
CONTAMINATED LAND CONSTRAINTS PLAN











ID	Description
A1	Electrical Substation
A2	Joinery Works and Timber Yards
A3	Garage
B1	Gas Depot
B2	Electrical Substation
B3	Vehicle Parts Depot
B4	Gasworks
B5	Garages
B6	Timber Yard
B7	Fire station / Ambulance Station
C1	Composting Facility and Waste Transfer Station
C2	Leisure Development
C3	Electrical Substation
C4	Petrol Station
D1	Ferry Terminal
E1	Electricity Substation
E2	Petrol Station
E3	Bus Depot
E4	Railway Station
E5	Sawmill
E6	Rail Freights Yards, Depots, Engineering Yards

Sites of Interest

- Commercial Road (A)
- Harbourside (B)
- Lodmoor Gateway (C)
- Peninsula (D)
- Station Gateway (E)

Potentially Contaminative Land Uses

- Landfill
- Infill ground selection
- Railway / Tramway / Sidings selection
- Contaminated Land Use

Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA

Rev	Date	Description	By	Chk	App

PARSONS BRINCKERHOFF
Queen Victoria House
Redland Hill, Redland
Bristol BS6 6US
Tel: 44-(0)117-9339300
Fax: 44-(0)117-9339250

Client: Weymouth & Portland Borough Council

Site/Project: WEYMOUTH TOWN CENTRE MASTERPLAN

Title: PLAN SHOWING KEY POTENTIALLY CONTAMINATIVE LAND USES

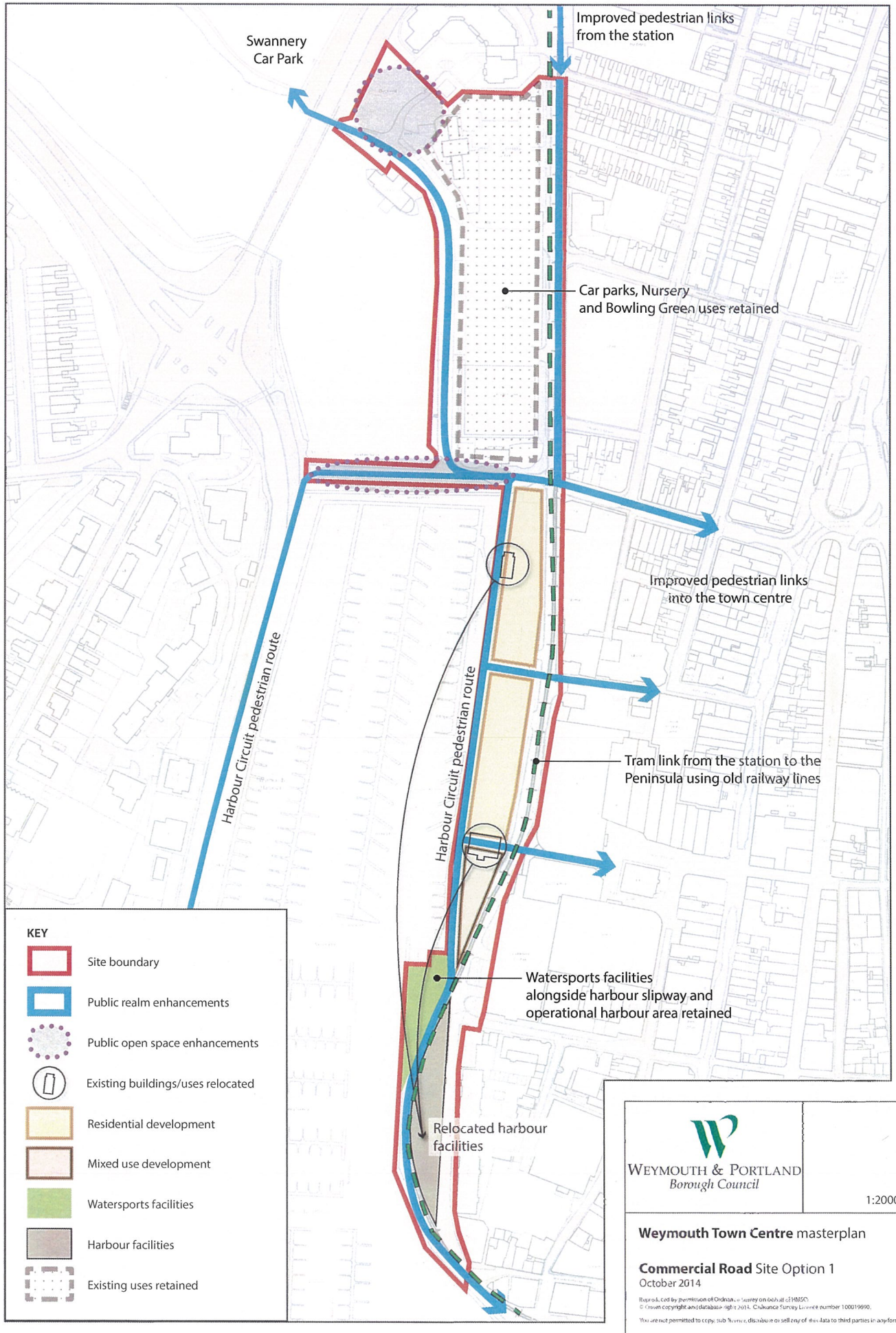
Drawn:	JSdS	Checked:	SP
Designed:	SP	Approved:	PD
Date:	09/01/2015	Scale: 1:22,530	A3 Sheet:

Project Number:	Drawing Number:	Revision:
3513827A-PTE	FIGURE 2	

File Name: N:\3513\3513827A-PTE Weymouth TC Masterplan\Z Dwgs\GIS\Mxd\Contamination\3513827A-PTE-F02.mxd
Login: DeSouzaJ
Plot Date: 09/01/2015

APPENDIX D

SITE OPTIONS



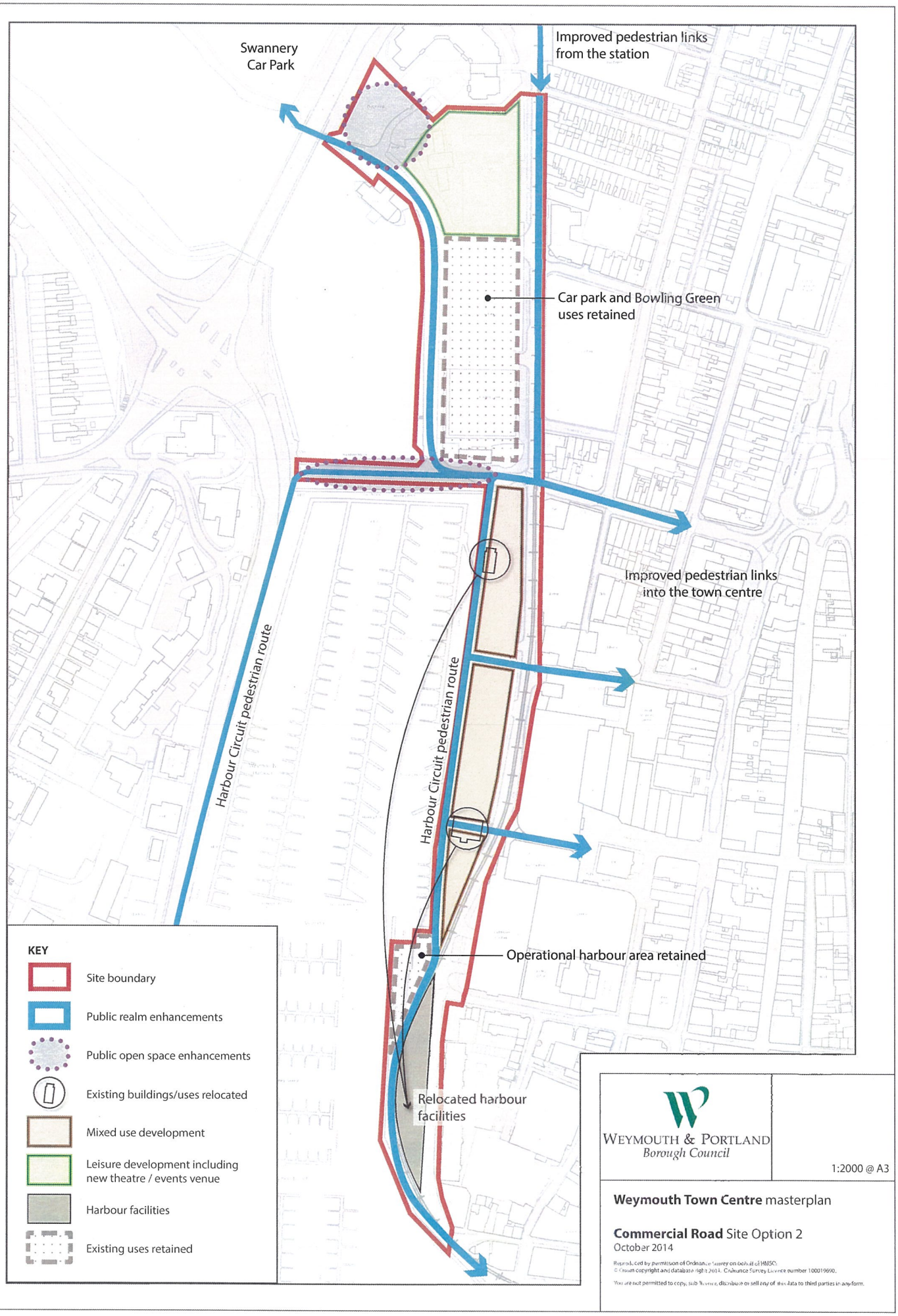
WEYMOUTH & PORTLAND
Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Commercial Road Site Option 1

October 2014

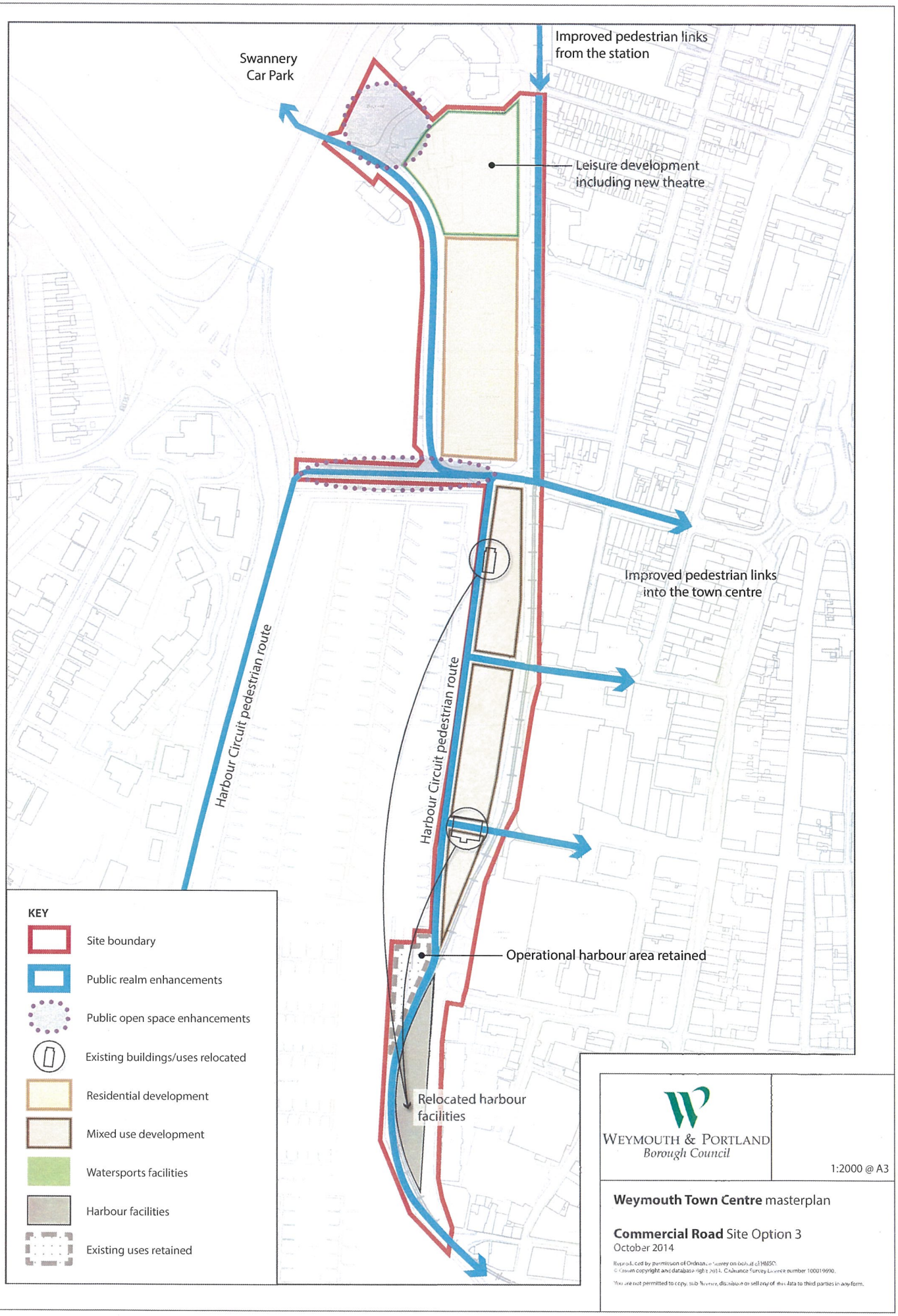


WEYMOUTH & PORTLAND
Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Commercial Road Site Option 2
October 2014

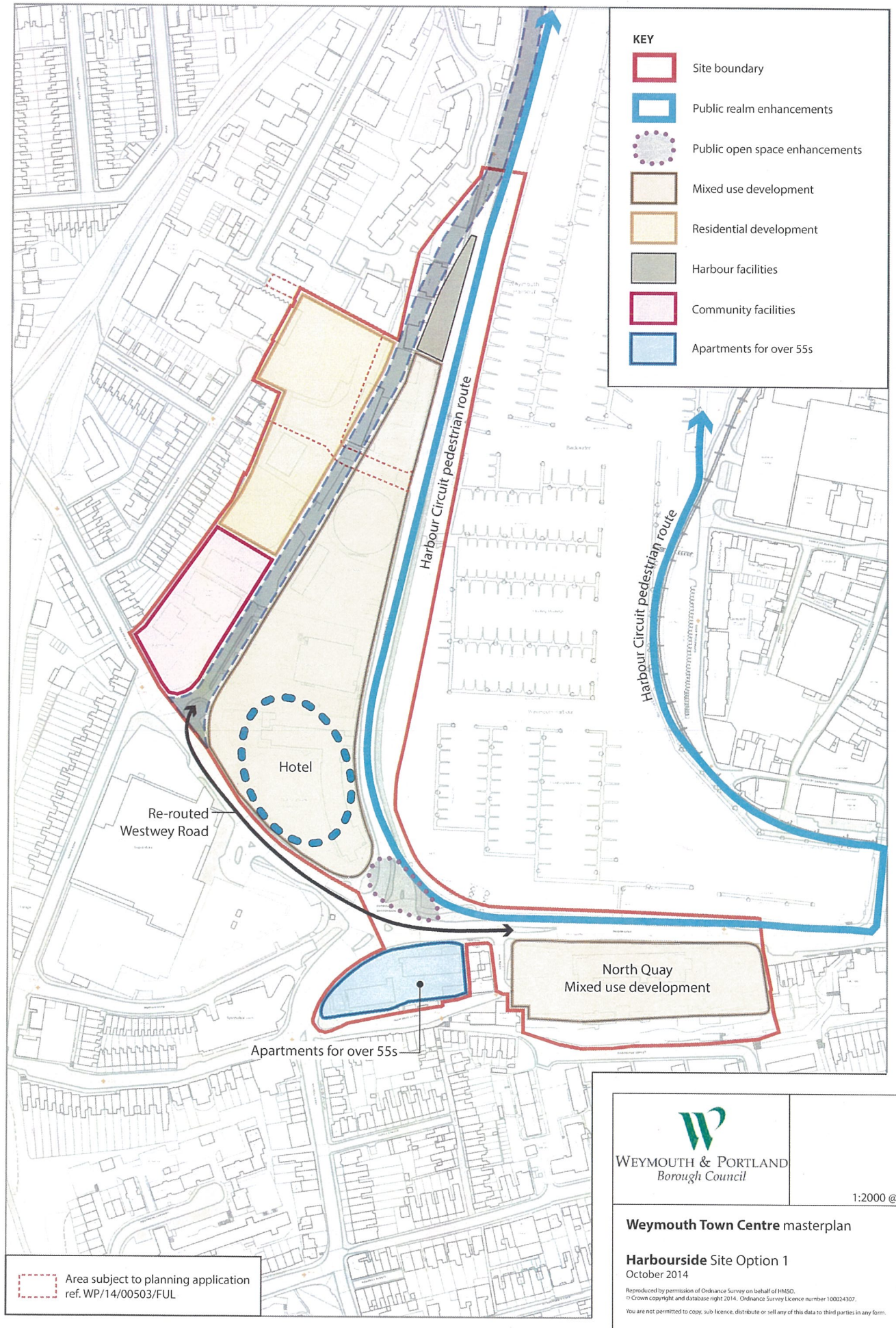


WEYMOUTH & PORTLAND
Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Commercial Road Site Option 3
October 2014



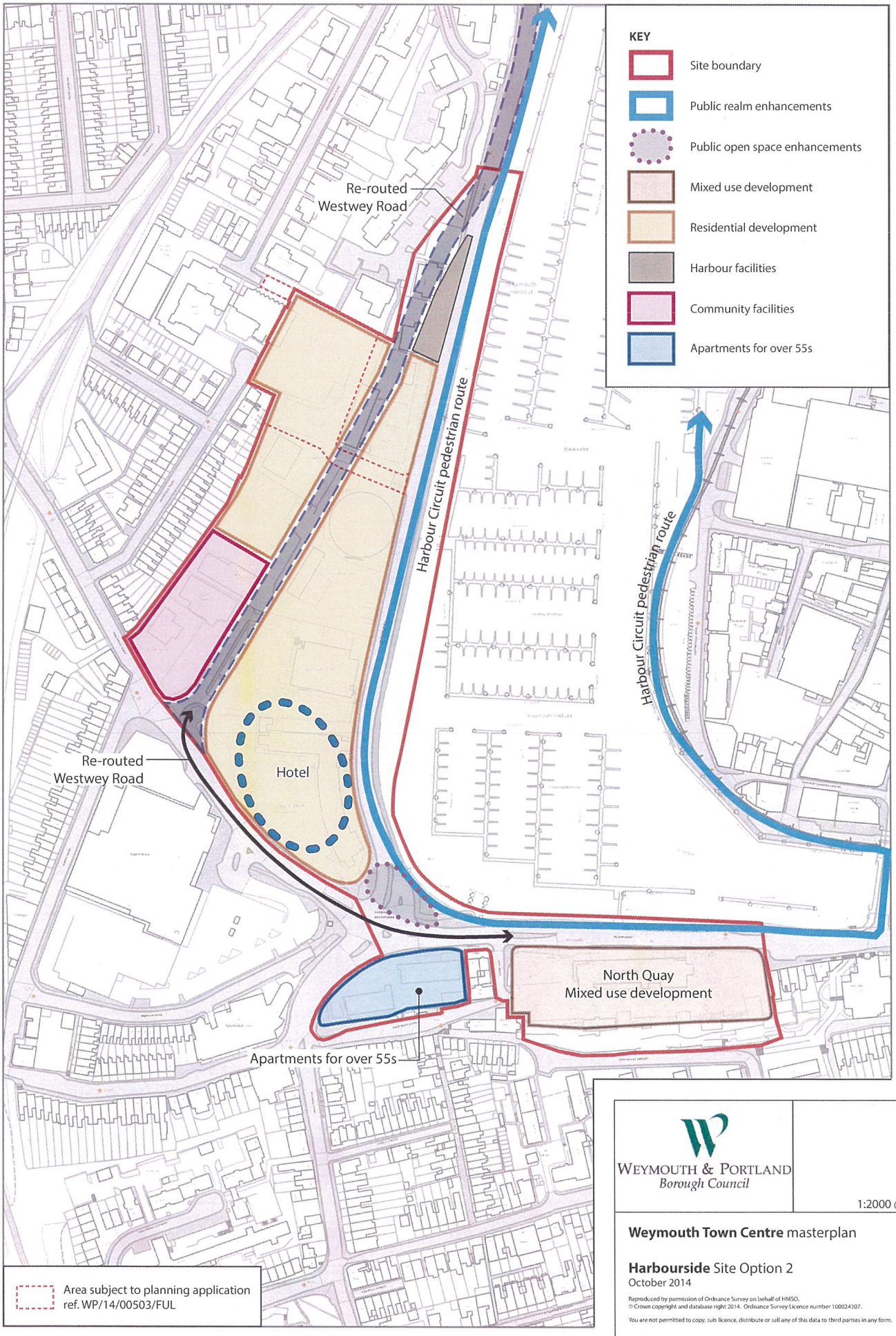
Weymouth & Portland
Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Harbourside Site Option 1

October 2014



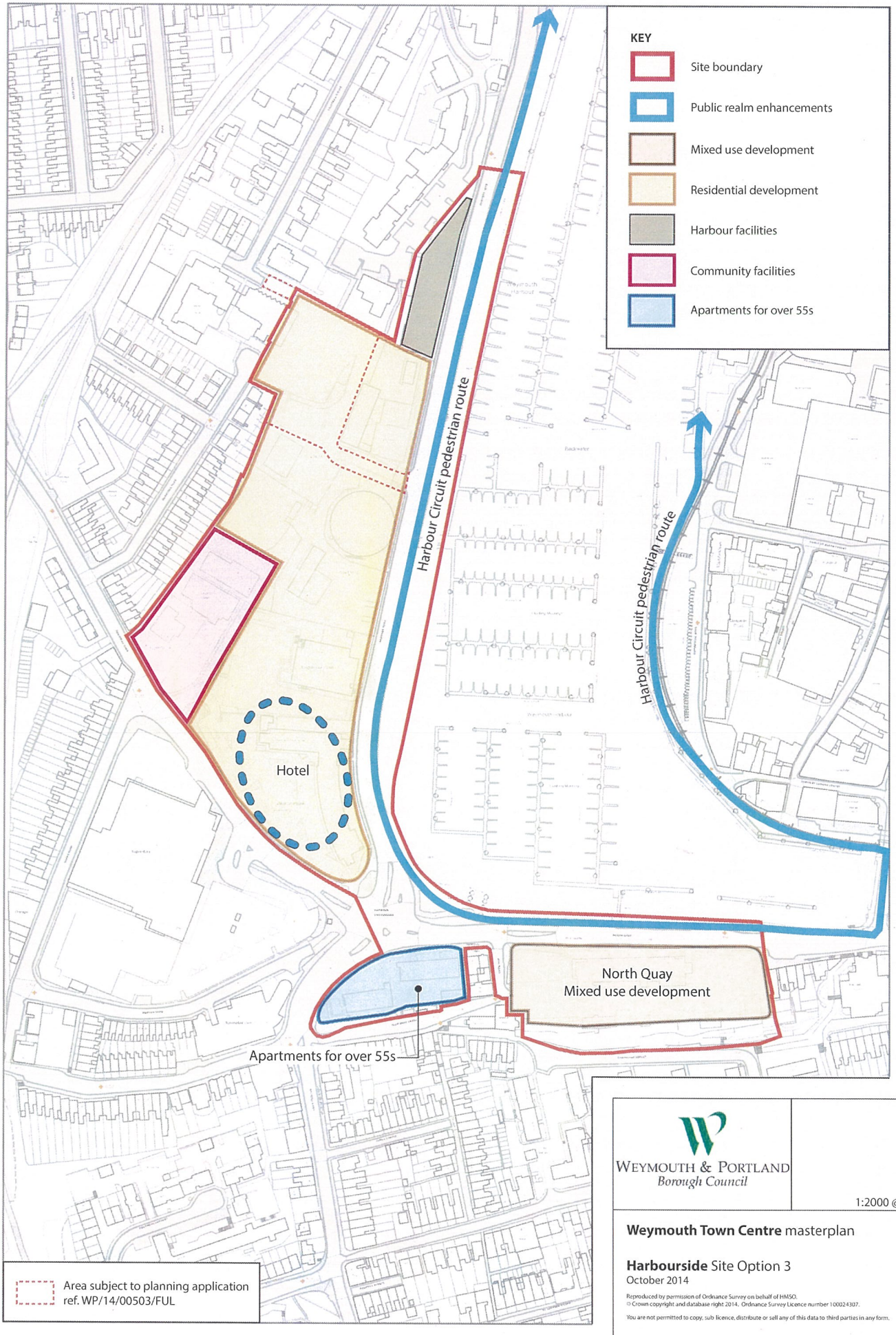
WEYMOUTH & PORTLAND
Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Harbourside Site Option 2

October 2014



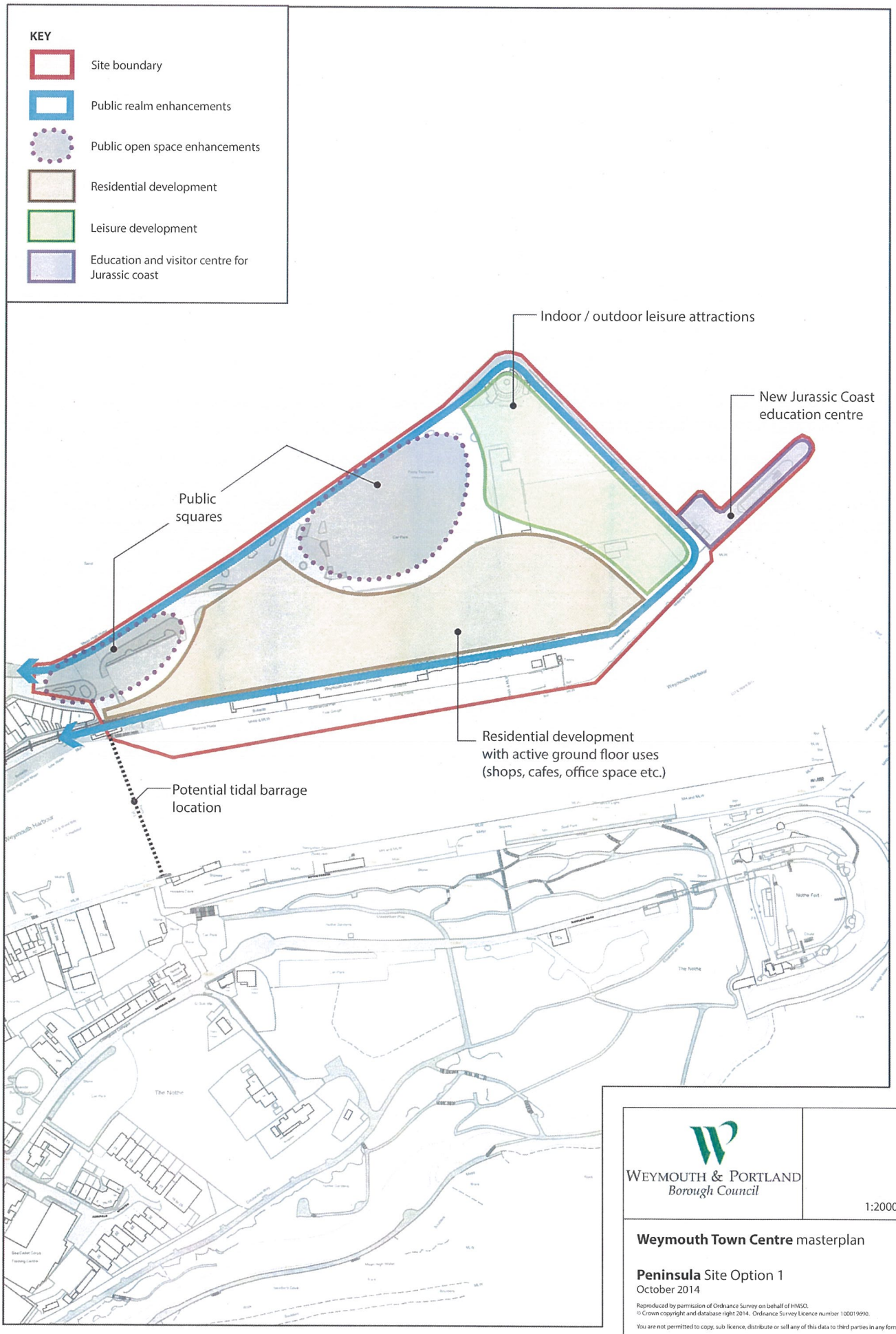
WEYMOUTH & PORTLAND
Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Harbourside Site Option 3

October 2014



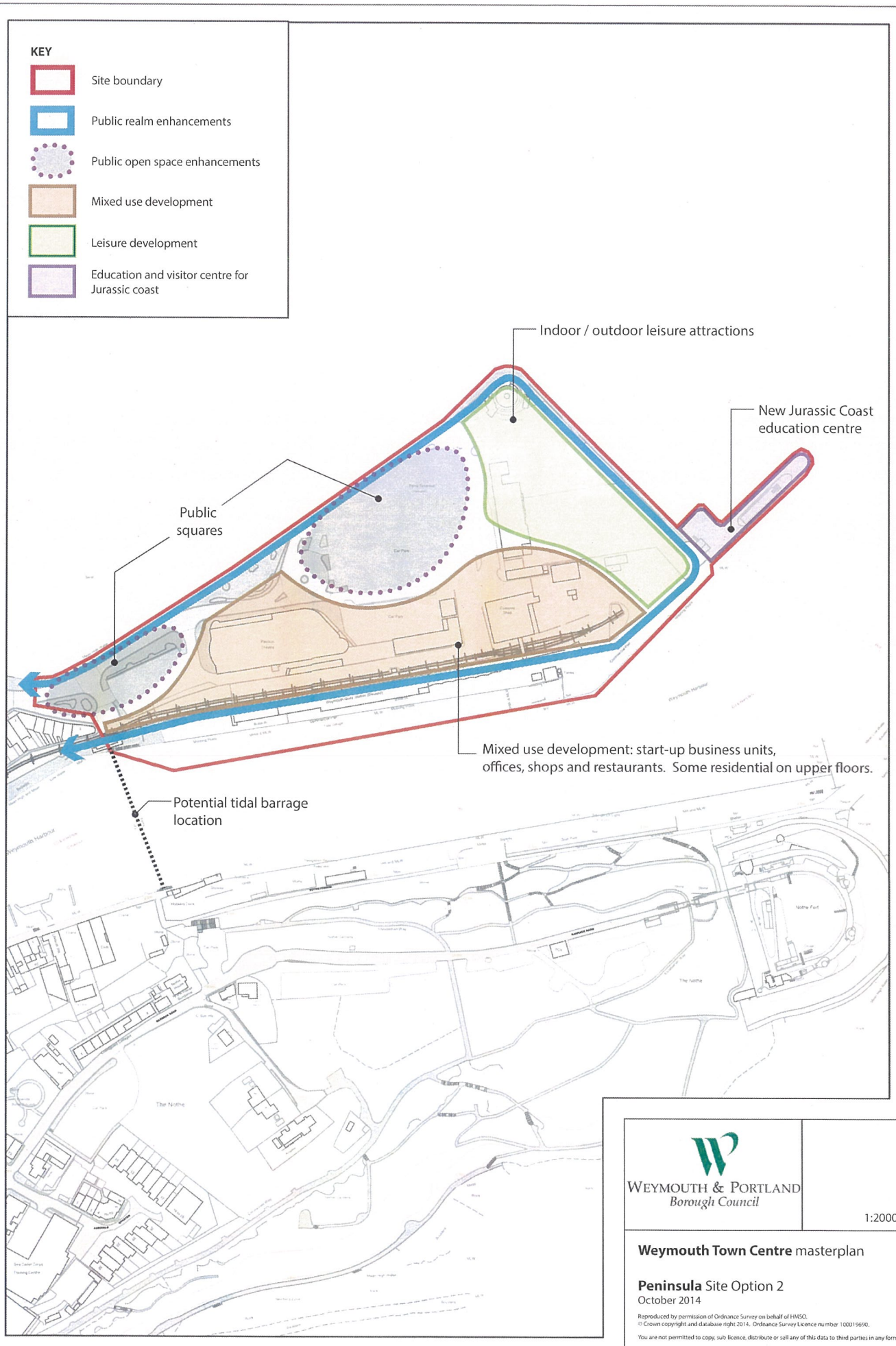
Weymouth & Portland Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Peninsula Site Option 1

October 2014



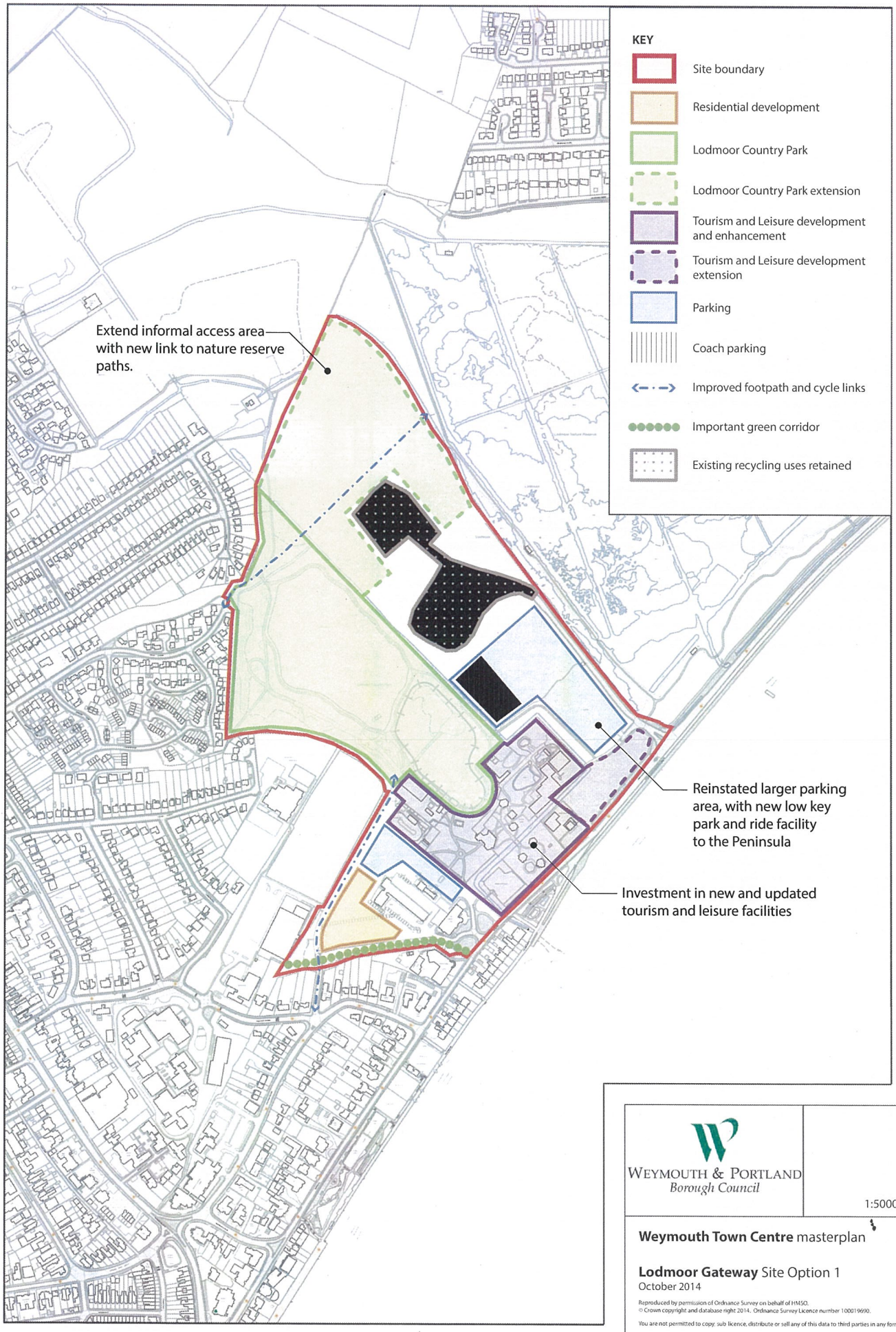
Weymouth & Portland Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Peninsula Site Option 2

October 2014



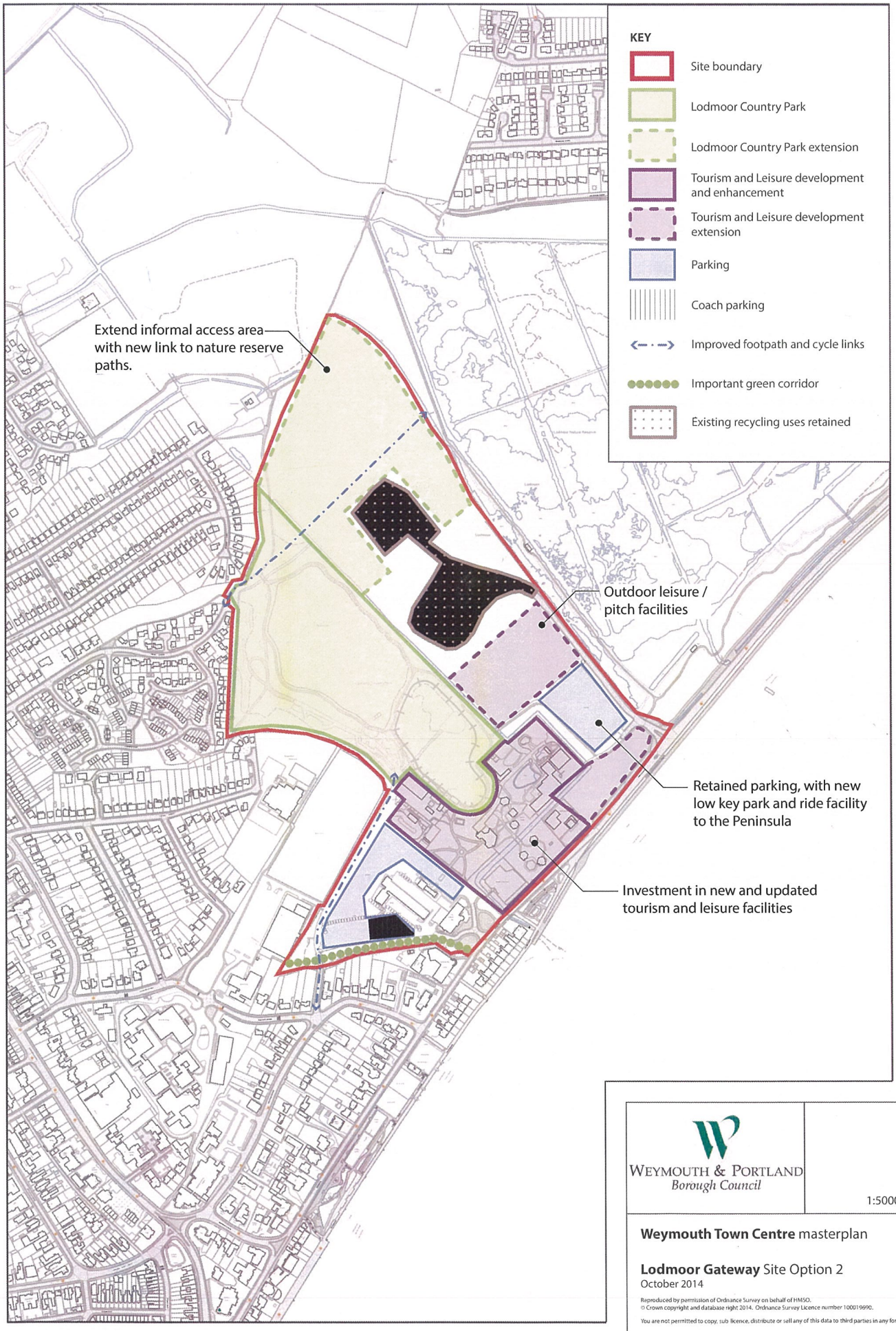
Weymouth & Portland Borough Council

1:5000 @ A3

Weymouth Town Centre masterplan

Lodmoor Gateway Site Option 1

October 2014



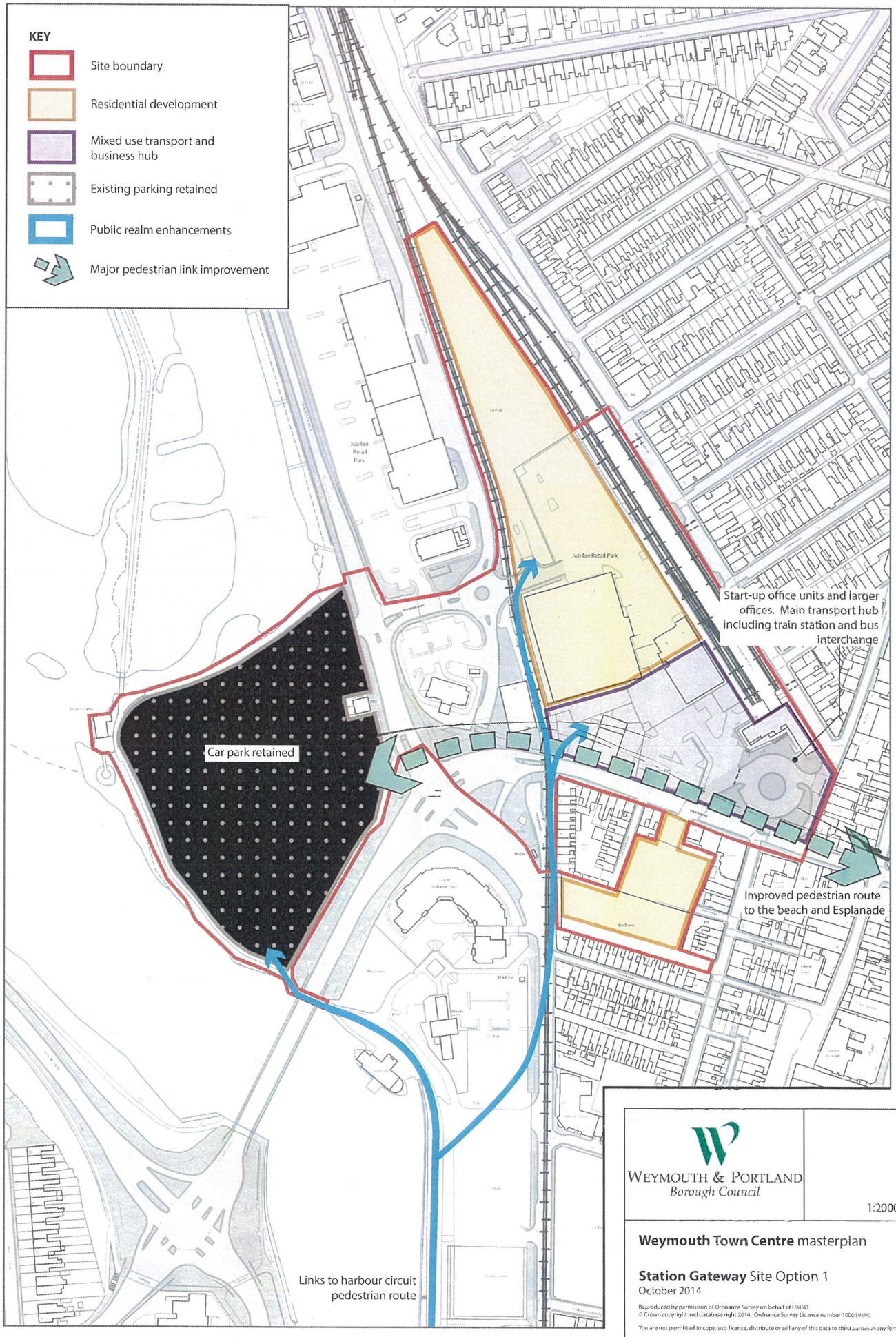
Weymouth & Portland Borough Council

1:5000 @ A3

Weymouth Town Centre masterplan

Lodmoor Gateway Site Option 2

October 2014



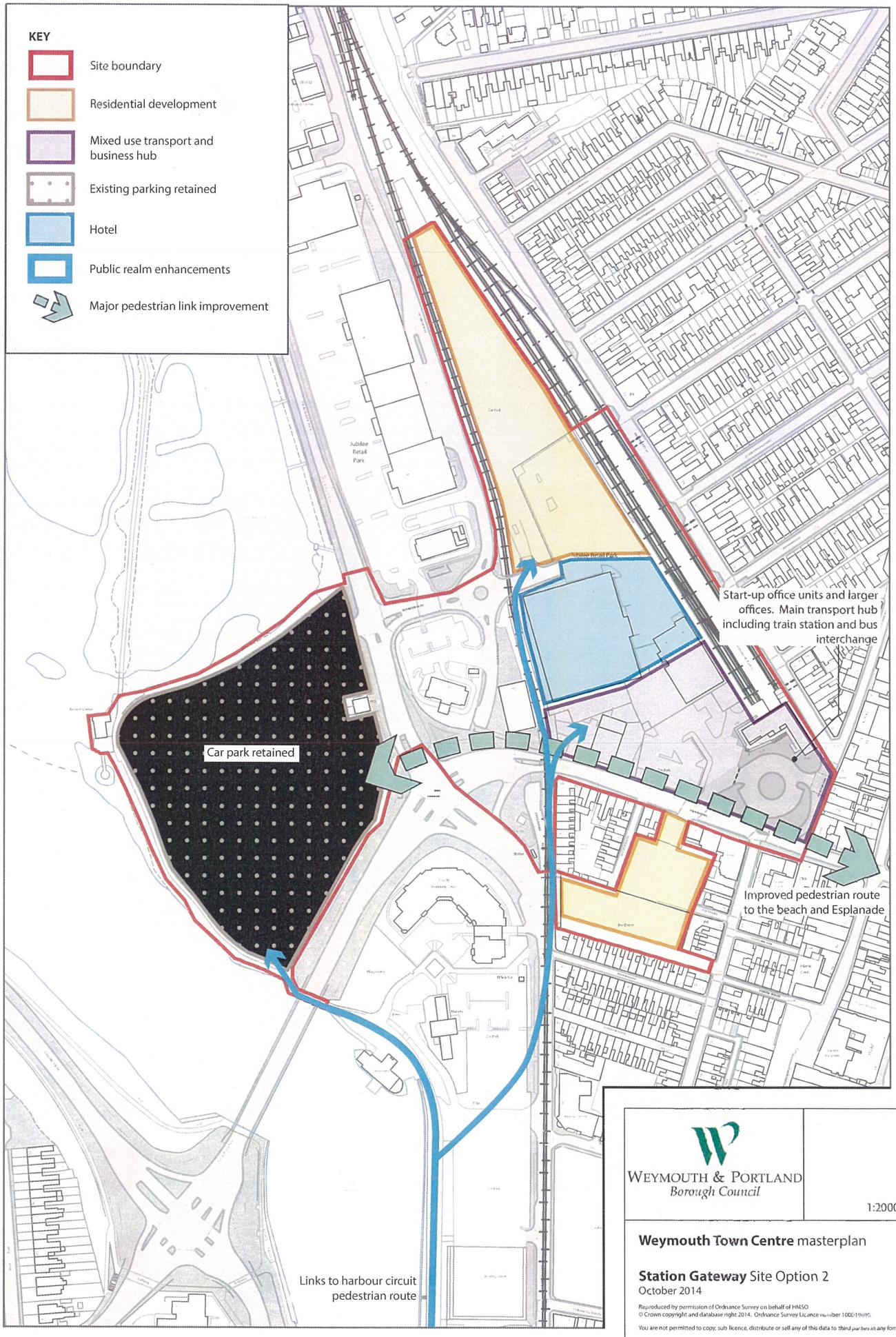
Weymouth & Portland Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Station Gateway Site Option 1

October 2014



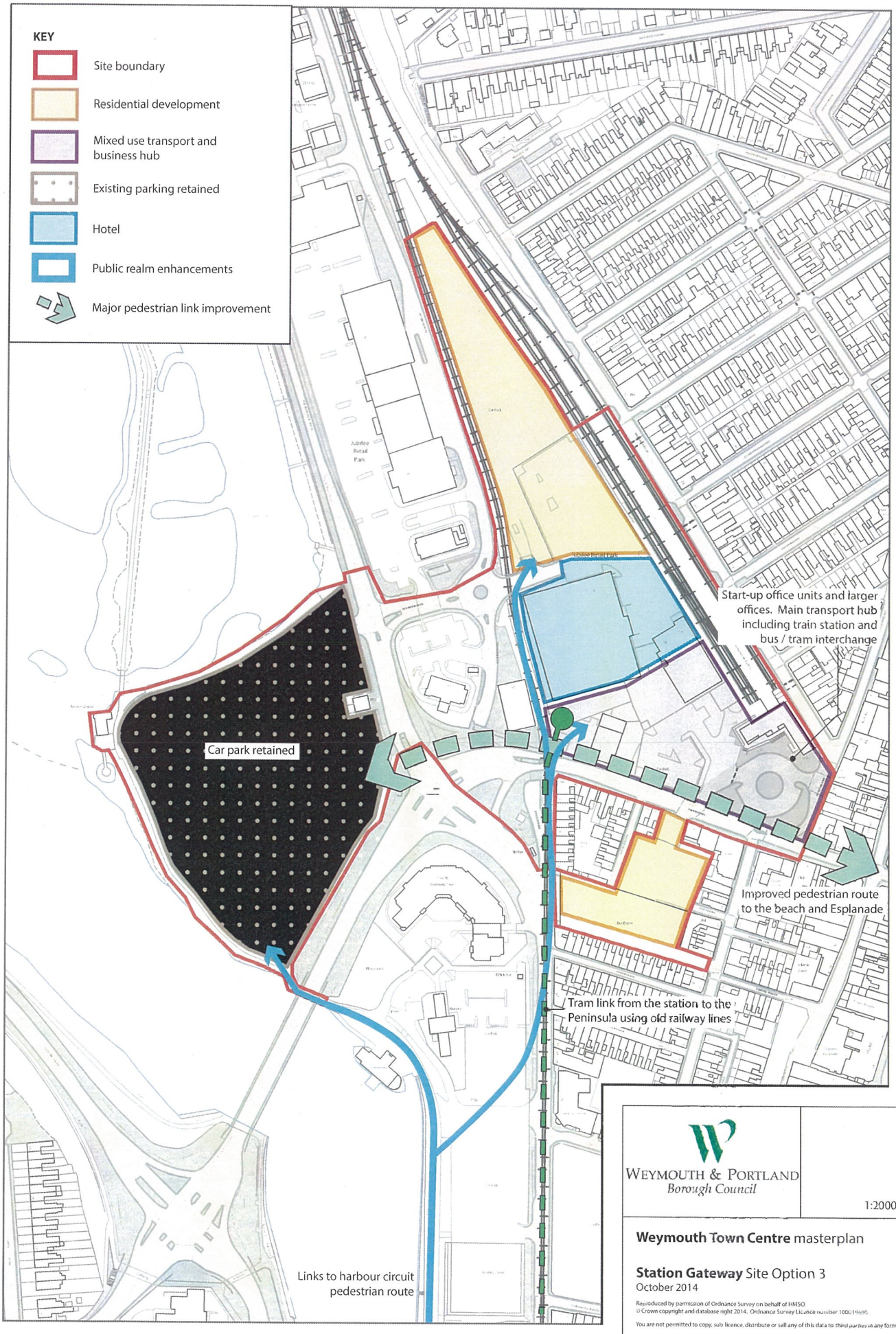
Weymouth & Portland Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Station Gateway Site Option 2

October 2014



Weymouth & Portland Borough Council

1:2000 @ A3

Weymouth Town Centre masterplan

Station Gateway Site Option 3

October 2014