

Question To Be Considered In Scoping	Yes/No	Which Characteristics of the Project Environment Could Be Affected And How	Is the Effect Likely To Be Significant? Why?	Alternatives/Mitigation Measures
1. Will Construction, operation or decommissioning of the project involve actions which will cause physical changes in the locality, topography, land use, changes in waterbodies etc?				
Permanent or temporary change in land use, land cover, or topography, including increases in intensity of land use?	Yes	Intensity and type of land use and land cover will change in project area	Yes. The magnitude of the changes are predicted to have significant impact on the project environment in particular, as the project is located in a densely populated area and besides a SINC. The project is also situated adjacent to sites forming part of the Crane Valley Guidelines and thereby cumulative impacts may arise. The site also adjoins Regal House which is due to be extended to incorporate a 200 bed hotel.	Mitigation measures should be employed such as ensuring minimal impacts on the local environment, road network and interchange facilities on match and non-match days during construction and operation of the proposed development. Adequate services need to be ensured to be still available to the remaining population.
Clearance of existing land, vegetation and buildings?	Yes	The existing buildings, station concourse, cycle parking, sculpture, foot bridges, car park, fencing, and some riverside trees and small areas of landscaping will be removed	No subject to retention of riverside trees. The existing site buildings and landscaping are not of significant value.	Retain existing trees. Recommend relocation of existing sculpture in the new station concourse.
Creation of new land uses?	Yes	Introduces residential, retail and other commercial uses which were previously not on site	No. The new uses will complement other residential units and town centre uses planned in the surrounding area	
Pre-construction investigations e.g boreholes, soil testing?	Yes	Will involve boreholes and soil testing	No. These actions are unlikely to have a significant impact upon the topography and if contaminated land is found it will be required to be remediated.	

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Construction Works?	Yes	Construction of approximately 170 residential units, a new train station ticket office and 3200sqm of commercial floor space (GIA) in a series of buildings rising to 10 storeys in height. A new station concourse, areas of public space, riverside walk, a new taxi rank and 40 underground commuter parking spaces.	Yes. While the effects will be temporary the construction works have the potential to create significant parking and traffic congestion and disruption to rail and other public transport services serving the RFU Stadium, Twickenham Stoop Stadium, Richmond Tertiary College as well as Twickenham Town Centre. Consideration of the cumulative impacts with other proposed surrounding development will be required	Ensure considerate contractors scheme is adhered to, to minimise disturbance to the local environment. Mitigation measures should be employed such as the provision of additional bus services to prevent significant congestion on match/concert days. Use of the rail system to deliver materials, remove soil etc should be investigated. Piling should accord with relevant BS document.
Demolition Works	Yes	Demolition of station building and removal of bridge	Yes – will temporarily affect the operation of the station and local rail services. Temporary replacement buildings will provide limited facilities but accessibility to and functioning of the rail station should improve in the long term.	Minimise impact on the environment through the reuse of recovered materials. Ensure disabled access to temporary ticket office and other station facilities is provided.
Temporary sites used for construction works or housing of construction works?	Yes	There will be some temporary construction compounds created on site	No – unlikely to have significant affect on the local environment if located at a good distance from the northern site boundary with River Crane SINC and mature trees	
Above ground buildings, structures or earthworks including linear structures, cut and fill excavations.	Yes	New and replacement buildings. New concrete raft structure above rail tracks, piled support columns and retaining walls.	Yes – new buildings will significantly impact the intensity of land cover and sue on the local area	

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Underground Works including Mining or Tunnelling	No			
Reclamation Works	No			
Dredging	No			
Coastal Structures etc	No			
Offshore Structures	No			
Production and Manufacturing Processes	No			
Facilities for Treatment or Disposal of Solid Wastes or Liquid Effluent?	No			
Facilities for long term housing of operational workers?	No			
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Production and Manufacturing Processes	No			
Facilities for Treatment or Disposal of Solid Wastes or Liquid Effluent?	No			
Facilities for long term housing of operational workers?	No			

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New road, rail or sea traffic during construction or operation?	Yes	New road traffic associated with the construction of buildings and also with the new residents of the 170 additional homes, train passengers/commuters and commercial units including service vehicles	Yes. The changes in the levels of traffic is likely to have a significant impact upon the local environment and upon local residents and businesses. It could also affect local air quality, road safety, and noise and vibration particularly when combined with potential impacts of the surrounding planned developments, approved and to be proposed.	A Transport Assessment should be undertaken to investigate the best methods of minimising any potential impacts.
New road, rail, air, water bourne or other transport infrastructure including new or altered routes and stations etc	Yes	New Train Station Ticket Office, concourse, taxi rank and replacement commuter parking	Yes. New rail, road and pedestrian movement could affect local air quality, adjacent NICS, road congestion and road safety, and noise and vibration	
Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movement?	Yes	Closure of rail line for 3 days and potential diversion of road traffic.	Yes. The closure of the line and the diversions in place during the remainder of the construction period could seriously affect the level of public transport service and congestion on local road conditions.	The transport assessment needs to outline the best methods of minimising this impact. The closure of the line should not coincide with a match/concert day at the RFU Stadium nor a fixture at Harlequins RFC (Twickenham Stoop).
New or diverted transmission lines or pipelines?	Unknown			
Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers	No			

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Stream Crossings	No			
Abstraction or transfer of water from ground or surface waters	No			
Changes in water bodies or the land surface affecting drainage or run-off	Yes	The land surface of the project environment will be altered	No – the overall percent increase in surface water run-off is not expected to rise significantly as the site is currently covered with hard surfaces	Sustainable Urban Drainage techniques should be used to mitigate potential impacts
Transport of personnel or materials for construction, operation or decommissioning?	Yes	Materials will need to be transported from their respective source fro the construction of new buildings	The materials required to build 170 units and 3000sqm commercial floor space being transported could have a significant impact on the local environment during the construction period	Material or construction should be sourced as close to the project area as possible. Alternative modes of transport to road vehicles need to be considered for the delivery of materials not sourced locally.
Long term decommissioning which could have an impact on the environment?	No			
On-going activity during decommissioning which could have an impact on the environment?	No			
Influx of people to an area either temporarily or permamently?	Yes	An additional 170 homes will be provided therefore at least an extra 300 people will be moving to the new homes in the area	Yes – the level of services required by an additional 300 extra residents could be significant, especially when considered in the context of other large scale residential developments likely to be proposed nearby	Ensure there are adequate new facilities to meet the new populations needs and minimise disruption to existing community
Introduction of alien species	Unknown			
Loss of natives species or genetic diversity	Unlikely			
Any other actions	No			

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2. Will construction or operation of the Project use natural resources such as land, water, materials or energy especially any resources which are non-renewable or in short supply?				
Land especially undeveloped or agricultural land?	No			
Water?	Yes	Water will be required during the construction and operation of the project	Not likely – the additional demand should be able to be met within the existing capacity of the water supplier for the area but there could be a potential cumulative impact	Developer should discuss the project with the water supplier and ensure that the demands will be met. And incorporate potential cumulative impact.
Minerals?	No			
Aggregates?	Yes	Aggregates will be used in the construction of the project	No – the supply of aggregate used will not be of a magnitude to significantly affect their supply but there could be a potential cumulative impact	The use of renewable/reclaimed materials in the project should be maximised
Forests and timber?	Yes	Timber will be required for the construction of the project	No – the supply of timber will not be of a magnitude to significantly affect their supply but there could be a potential cumulative impact	The use of renewable/reclaimed materials in the project should be maximised
Energy including electricity and fuels?	Yes	Energy and fuels will be required for the construction and operation of the project		The use of renewable energy and fuels in the project should be maximised
Any other resources?	No			
3. Will the project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?				
Will the project involve the use of substances or materials which are hazardous or toxic to human health or the environment	No			

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Will the project result in changes in the occurrence of disease?	No			
Will the project affect the welfare of people eg by changing living conditions	Yes	<p>The project could harm the existing living conditions of residents of Cole Park Road and St Marys Terrace.</p> <p>The project could improve the welfare of parts of the local population through the provision of new improved housing, public spaces, riverside access and rail station facilities.</p>	Yes	
Are there especially vulnerable groups of people who could be affected by the project e.g. hospital patients, the elderly	No			
Any other causes?				
4. Will the project produce solid wastes during construction or operation or decommissioning?				
Spoil, overburden or mine wastes?	No			
Municipal wastes (household or commercial wastes)	Yes	Household waste, construction waste and commercial waste will all be produced in the project environment	The level of waste will be significant in the terms of the construction waste and the municipal and commercial waste produced from the new development.	A Site Waste Management Plan for the area to provide the best solution for recycling facilities and servicing for waste
Hazardous or toxic waste (incl radioactive wastes)?	No			
Other industrial process wastes?	No			
Surplus product?	No			

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Sewage sludge or other sludges from effluent treatment?	No			
Construction or demolition waste?	Yes	Construction and demolition waste will be produced	Yes – the magnitude of the waste generated by the demolition of the existing site buildings and involved in the construction of process would be likely to generate a significant amount of waste	Minimise the levels of waste generated and exported from the site during demolition and construction
Redundent machinery or equipment?				
Contaminated soils or other materials?	Yes	The site is an operational railway station and contamination is likely?	A study of all pollutants harmful to human health and other risks should be undertaken and potential mitigation measures outlined	Ensure a desk-top study of the contamination risks is undertaken and appropriate further investigations and any remedial works undertaken where appropriate.
Agricultural wastes?	No			
Any other solid wastes?	No			
5. Will the project release pollutants or any hazardous, toxic or noxious substance?				
Emission from combustion of fossil fuels from stationary or mobile sources?	Yes	Emissions from motor vehicles and construction vehicles will increase in the project area.	Yes - The potential for the worsening of air quality in this area is a potential significant impact as the area is located in an Air Quality Management Area and is therefore already identified as having poor air quality which needs to be improved	A full air quality impact assessment should be undertaken as part of the EIA and mitigation measures to reduce car travel should be used such as non-eligibility for parking permits and provision of car club bays and lifetime car club membership for all residential units.
Emission from production processes	Yes	Emissions from the production of the building materials	No – minimal impact on the project environment itself	

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Emissions from materials handling including storage or transport	Yes	Emissions from the transportation of building materials to the project area	No – minimal impact on the project environment itself	Materials should be locally sources wherever possible
Emission from construction activities including plant and equipment?	Yes	Emissions from the construction of the project could impact nearby existing residents adjacent SINC	Yes – the works are likely to produce a temporary significant impact to neighbours living nearby, in particular Cole Park Road and St Marys Terrace, and the River Crane	Construction Method Statement should be prepared as part of the EIA
Dust or odours from the handling of materials including construction materials, sewage and waste?	Yes	Dust and odours could be generated from the construction and effect local residents adjacent SINC	Yes – the works are likely to produce a temporary significant impact to neighbours living nearby, in particular Cole Park Road and St Marys Terrace, and the River Crane	Construction Method Statement should be prepared as part of the EIA. Precautions should also be taken in adherence with the considerate contractors scheme to minimise any of these impacts.
Emissions from incineration of waste?	No			
Emissions from burning of waste in the open air?	Yes	Construction site bonfires to be controlled	No – minimal impact on the project environment itself	Ensure considerate contractors scheme is adhered to and a Construction Method Statement is prepared as part of the EIA.
Emissions from any other sources?	Yes	Taxis idling in rank, moving up slowly	No – limited impact on the project environment	Ensure taxi rank sited away from residential properties and not besides opening windows
6. Will the project cause noise and vibration or release of light, heat energy or electromagnetic radiation?				
From the operation of equipment eg engines, ventilation plant?	Yes	Noise and vibration could be generated from the power supplied and other mechanical methods used during construction and effect the nearby residents, workers and wildlife, eg bats and birds, in the adjacent River Crane SINC	Yes – the works are likely to produce a temporary significant impact in the locality	Construction Method Statement should be prepared as part of the EIA. Precautions should be taken through adherence to the considerate contractors scheme to minimise any of these impacts. Also appropriate phasing of development and screening should be employed

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From industrial or similar processes?	No			
From construction or demolition?	Yes	Noise, vibration, lighting, dust and odours from the construction process will effect local residents and adjacent SINC	Yes - a temporary significant impact on existing residents and River Crane	Construction Method Statement should be prepared as part of the EIA. Precautions should be taken through adherence to the considerate contractors scheme to minimise any of these impacts. Also appropriate phasing of development and screening should be employed
From blasting or piling	Yes	Noise, vibration, dust and odours from piling could impact on local residents and adjacent SINC	Yes – the works are likely to produce a temporary significant impact in the locality	Construction Method Statement should be prepared as part of the EIA. Precautions should be taken through adherence to the considerate contractors scheme to minimise any of these impacts. Also appropriate phasing of development and screening should be employed
From construction or operations traffic?	Yes	Site traffic noise	Yes – potential significant impact on nearby residents, workers and wildlife, eg bats and birds, in the adjacent River Crane SINC	Construction Method Statement should be prepared as part of the EIA
From lighting or cooling systems.	Yes	The new lighting required by the new homes and site lighting needed during construction may result in increased heat generated in the area. Internal lighting could impact on c	No – the level of heat produced is unlikely to be significant in light of the existing background urban heat island effect.	
From sources of electromagnetic radiation?	No			
From any other sources?	No			

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7. Will the project lead to risks of contamination of land or water from releases of pollutants onto the ground or into the sewers, surface waters, ground water, coastal waters or the sea?				
From handling, storage, use or spillage of hazardous or toxic materials?	Yes	Contaminated spoil	No subject to careful removal of any contaminated spoil	
From discharge of sewage or other effluents to water or land?	No			
By deposit of pollutants emitted to air, onto the land or into water?	Yes	Increase hard surfacing could result in increases in the volume of surface water run-off and worsening the water quality in the adjacent River Crane should this run off drain into it and also increasing flood risk	Yes – the impact is likely to be of secondary significance although impacts of increased surface water run off on the wider area should also be considered.	Sustainable Urban Drainage techniques, should be used throughout the project area and the retention of as much vegetation as possible is encouraged.
From any other sources?	No			
Is there a risk of long term build up of pollutants in the environment from these sources?	No			
8. Will there be any risk of accidents during the construction or operation of the project which could affect human health?				
From explosions, spillages, fires etc from storage, handling, use or production of hazardous or toxic substances?	No			
From events beyond the limits of normal environmental protection e.g. failure of appropriate pollution control systems?	No			
From any other causes?	No			

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Could the project be affected by natural disasters causing environmental damage?	No			
9. Will the project result on social changes, for example, in demography, traditional lifestyles, employment?				
Changes in the population size, age, structure, social groups?	Yes	The addition of 170 new homes	Yes -	Ensure there are adequate schools, health care, open spaces and other local amenities to meet the needs of the existing and proposed residents
By resettlement of people or by demolition of homes of communities or community facilities e.g. schools, hospitals	No			
Through in migration of new residents or creation of new communities	Yes	The addition of 170 new homes	Yes – the	Ensure there are adequate schools, health care, open spaces and other local amenities to meet the needs of the existing and proposed residents
By placing increased demands on local facilities or services in housing, education, health?	Yes			Ensure there are adequate schools, health care, open spaces and other local amenities to meet the needs of the existing and proposed residents
By creating jobs during construction or operation or causing the loss of jobs with effects on unemployment and the economy?	Yes	A number of construction jobs available in the area will temporarily improve the economy of the local area and other new jobs will be created as part of the new development	This is likely to be significant but of secondary significance as the number of new jobs created in the area permanently is not likely to be large	Job training and local labour agreements should be used in appropriate circumstances
Any other causes?	No			

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10. Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned developments/activities in the locality?				
Will the project lead to pressure for consequential development which could have a significant impact on the environment?	Yes	The addition of 170 new homes		Ensure there are adequate schools, health care, open spaces and other local amenities to meet the needs of the existing and proposed residents
Will the project lead to development of supporting facilities, ancillary development or development stimulated by the project?	Yes	See above		
Will the project lead to the after use of the site which could have an impact on the environment?	No			
Will the project set a precedent for later developments	Yes	The density, building heights, massing, style and design of housing will set a precedent for later development in the area. The improved station facilities, commercial and additional homes could stimulate further investment in the area.	Yes – the development could bring forward further development which will improve the economy and environment in the area and thus encourage further investment.	
Will the project have cumulative impacts due to proximity to other existing or planned projects with similar effects?	Yes	The redevelopment of the land around Twickenham Station and neighbouring sites could involve the construction of 300 homes, shops, hotel and other commercial uses. Cumulatively this will have a significant impact	Yes – a number of developments are planned in the area. Combined these will have a significant impact on the local environment	Ensure cumulative impacts are considered as part of the ES and ensure that the proposed development facilitates the provision of pedestrian/cycle links between the project site and the remainder of the Crane Valley sites, in particular the Royal Mail site in accordance with the Crane Valley Guidelines

