

Transport Section

BREEAM : Education : 2008
Transport
Tra 1 – Provision of public transport

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

Credit aim

To recognise and encourage development in proximity to good public transport networks, thereby helping to reduce transport-related emissions and traffic congestion.

Credit criteria

Schools

Credits	
3	The credits are awarded on a sliding scale based on the assessed buildings' accessibility to the public transport network.

Further Education Colleges

Credits	
5	The credits are awarded on a sliding scale based on the assessed buildings' accessibility to the public transport network.

Compliance requirements

The following demonstrates compliance:

1. The public transport *Accessibility Index* for the building is calculated and BREEAM credits awarded in accordance with table 1:

Table 1: AI benchmarks and BREEAM credits for each building type

Accessibility Index	BREEAM credits	
	School	Further Education College
≥2	1	1
≥4	2	2
≥8	3	3
≥12	3	4
≥18	3	5

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The *Accessibility Index* is determined by entering the following information in to the BREEAM assessor's *Tra 1 Provision of Public Transport calculator*:

- The distance (m) from the *main building entrance* to each *compliant public transport node*
- The public transport type serving the compliant node e.g. bus or rail
- The *average number of services* stopping per hour at each *compliant node* during the standard *operating hours* of the building for a *typical day* (see additional guidance).

Schools only

- Where there is a dedicated bus service to and from the school at the beginning and end of the school day, **one credit** can be awarded regardless of the building's public transport *Accessibility Index*.

Compliance notes	
New Build	There are no additional or different requirements to those outlined above specific to new-build projects.
Refurbishment	There are no additional or different requirements to those outlined above specific to refurbishment projects.
Extensions to existing buildings	There are no additional or different requirements to those outlined above specific to the assessment of extensions to existing buildings.
Operating hours	<p>BREEAM seeks to define the building's accessibility to the public transport network for the period during which the majority of building users will travel to and from the building. In most cases the normal operating hours of the building can be used; however, some buildings will operate for 24 hours a day and on a shift work basis. As a result, during what typically would be deemed unsociable hours and therefore periods where a) there is little if any public transport operating and b) the number of total building users travelling to the building during this time is a minority; such periods are not required to be accounted for in the assessment of this issue.</p> <p>Where the assessed building operates on a 24-hour basis, or the operating hours are unknown at the time of assessment, then refer to and use the table of default operating hours, which can be found in the additional information section of this credit.</p>

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Compliant public transport node	A compliant node includes any bus stop within 650m and any railway station within 1000m of the assessed building's main entrance, measured via a safe pedestrian route (not ' <i>as the crow flies</i> '). The service stopping at each node must provide transport from, or onward travel to, either an urban centre, major transport node or a community focal point e.g. doctor's surgery, library, school or village centre. There is no limit on the number of nodes that can be considered when calculating the AI, provided they all meet the above requirements.
Average number of services	For the purpose of the calculation, the frequency of public transport is the average number of services per hour. This is calculated by determining the number of stopping services at the node during the operating hours, divided by the number of hours within the operating period. For example: the average number of services for an assessment of a building that operates between 8am - 7pm (11 hours) and is within proximity of a bus stop with 35 stopping services during this period is 3 (equivalent to an average service frequency of 20 minutes).
Typical day	The typical day is that which represents the period when travel to and from the building by staff and visitors will be at its highest. For most buildings this should be taken as a mid-week day. In choosing a typical day the assessor should check that the timetabled information for that day is, within reason, representative of the public transport provision for the entire operating week (excluding Sundays).
Multiple services	Services that operate from more than one node within proximity of the building, i.e. two separate bus stops served by the same bus, must be considered only once - at the node in closest proximity to the building. Different services at the same node, however, should be considered as separate entities.
Bi-directional routes	Routes will be bi-directional; however for the purpose of calculating the index, consider only the direction with the highest frequency.
Dedicated transport services	Where a dedicated company bus service is provided for staff during, or before or after, <i>operating hours</i> (as defined in above), the building entrance can be substituted for the drop-off/pick-up destination point of this service and therefore public transport accessibility measured from that point.

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Phased developments	<p>In the case of a large phased development where new transport facilities will be provided, but at a later stage than the building being assessed, the assessment can consider such facilities provided that:</p> <ul style="list-style-type: none"> • A commitment to provide transport facilities has been made in the General Contract Specification or in the form of a Section 106 Agreement. And the shortest of the following periods - Either • The transport facilities will be available for use by the time 25% of all phases have been completed and are ready for occupation. Or • The transport facilities will be available for use within 25% of the total build time for the phase in which the assessed building forms a part, measured from the completion date of that phase. <p>The most appropriate rule for the development in question must be used, ensuring that the time building users have to wait before having use of the transport facilities is as short as possible. Where the transport facilities will not be available for use within a period of five years from occupation of the building, they cannot be considered for determining compliance with the BREEAM requirements.</p>
Buildings in Greater London	Buildings in Greater London should refer to the guidance in the additional information section of this credit for details of demonstrating compliance via other complementary means.

Schedule of Evidence Required

Req.	Design Stage	Post Construction Stage
1	<p>A copy of the output from the <i>Tra1 Provision of Public Transport calculator*</i>.</p> <p>*Or via the alternative means for buildings in Greater London (see additional information).</p>	<p>The evidence required at this stage is the same as that outlined at the design stage.</p> <p>Where relying on a calculation carried out at the design stage to demonstrate compliance post construction, if the period between design and post construction stage reporting is greater than 12 months, then the AI must be re-calculated using up-to-date public transport timetable information.</p>
2	<p>Scale map highlighting the location of the building and all public transport nodes in proximity of the building.</p> <p>Timetables for each service at each public transport node considered.</p>	
Schools only		
3	A formal letter from the school with details of the dedicated bus service(s).	The evidence required at this stage is the same as that outlined at the design stage.

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Additional information

Relevant definitions

Accessibility Index: A measure that provides an indicator of the accessibility and density of the public transport network at a point of interest (in the case of BREEAM, a building). The index is influenced by the proximity and diversity of the public transport network and the level or frequency of service at the accessible node.

Tra 1 Provision of Public Transport calculator: A spreadsheet-based calculator used to determine the *Accessibility Index* for the assessed building and the number of BREEAM credits achieved. BREEAM calculators are provided in the BREEAM Assessor's spreadsheet tool.

Main building entrance: The main building entrance is the entrance to the assessed building accessed by the majority of the building's staff and visitors, not the site entrance (unless the site entrance is also the building entrance e.g. building with a boundary on a public highway).

AI Indicator of performance – comparison with previous version of BREEAM

For comparison with the requirements of previous versions of BREEAM, a building that has a single public transport node 500m from its main building entrance with one service stopping every 15 minutes i.e. 4 services per hour on average, will score an AI of approximately 1.90. Alternatively, the same node with one service every 15 minutes, but 300m from the building entrance will achieve an AI of 2.26. The same node with two services stopping every 15 minutes will score an AI of 2.85. The greater the number of compliant nodes, services and their proximity to the building, the higher the AI.

Table 1: Default hours of operation for a typical day

Building type	AM	PM
Office	8.00am - 7.00pm	
Industrial	8.00am - 7.00pm	
School	7.30am -10.00am	3.00pm - 5.30pm
Further Education	8.00am - 7.00pm	
Courts	8.00am - 7.00pm	
Prison	7am - 8pm (encompassing visiting hours and the typical daytime shift pattern)	
Healthcare	7am - 8pm (encompassing visiting hours and the typical daytime shift pattern)	
Shopping centre	9.00am - 7.00pm	

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Supermarket	8.00am - 10.00pm
Bank/Service provider	8.00am - 6.00pm
Convenience store	7.00am - 10.00pm
DIY/retail park	8.00am - 8.00pm
Other retail	8.00am - 6.00pm
Bespoke & other	8.00am - 7.00pm Or use any of the above hours, as appropriate to the building type.
24 hour use building	7am - 8pm

Calculation methodology

The methodology for calculating the *Accessibility Index* uses Transport for London's *Public Transport Accessibility Level* (PTAL) method, itself based on a methodology developed in 1992 by the London Borough of Hammersmith and Fulham. For a description of the PTAL methodology and how it works refer to appendix B of *Transport Assessment Best Practice; Guidance Document*: http://www.tfl.gov.uk/assets/downloads/corporate/TAGuidance_LQ.pdf

Buildings in Greater London

There is a public transport accessibility map for Greater London which can be used for determining the *Accessibility Index* for assessed buildings, without necessarily having to complete a separate calculation. This map can be found at: <http://www.london.gov.uk/thelondonplan/maps-diagrams/map-2a-03.jsp>

The map shows the Public Transport Accessibility Levels throughout London (PTALs range from 1-6); the PTAL is determined using the AI as follows:

PTAL	AI
1	0.00 – 5.00
2	5.01 – 10.00
3	10.01 – 15.00
4	15.01 – 20.00
5	20.01 – 25.00
6	25.01 +

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As an example, if the building is located in an area of London that has a PTAL of 2 this could have an AI at any point in the 5-10 range. As such, for the purpose of BREEAM, the lower AI of 5 must be assumed and the credit awarded accordingly, or alternatively the specific AI for the assessed building can be determined using the *Tra1 Provision of Public Transport calculator* and, potentially, a higher number of credits awarded.

References

1. “*Transport Assessment Best Practice; Guidance Document*”, Transport for London, 2006.

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Transport
Tra 2 – Proximity to amenities

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

Credit aim

To encourage and reward a building that is located in proximity to local amenities, thereby reducing the need for extended travel or multiple trips.

Credit criteria

Credits	
1	Where evidence provided demonstrates that the building is located within 500m of <i>accessible local amenities</i> appropriate to the building type and its users.

Compliance requirements

The following demonstrates compliance:

1. Where the building is within 500m of the following amenities:
 - a. Grocery shop and/or food outlet
 - b. Post box
 - c. Cash machine

Compliance notes	
New Build	There are no additional or different requirements to those outlined above specific to new-build projects.
Refurbishment	There are no additional or different requirements to those outlined above specific to refurbishment projects.
Extensions to existing buildings	There are no additional or different requirements to those outlined above specific to the assessment of extensions to existing buildings.
Food Outlet	This includes the following: <ul style="list-style-type: none"> • Grocery shop • Supermarket • Sandwich shop • On- or off-site cafeteria or staff canteen
Collective amenities	One type of amenity may also exist within or a part of other types of amenities e.g. grocery store in a petrol station, cash point or pharmacy in a supermarket etc. It is not a requirement of the credit that each amenity is 'stand alone'.
Accessible local amenities	The distance must be measured via safe pedestrian routes e.g. pavements and safe crossing points or, where provided, dedicated pedestrian crossing points. The distance should not be measured in a straight line, ' <i>as the crow flies</i> '.

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Tra 2 – Proximity to amenities

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Rating Level	P	G	VG	E	O
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Amenities within building	Amenities within the building or on the site (provided within 500m of assessed building) meet the credit requirements.
Phased developments	The guidance provided in BREEAM credit Tra 1, concerning phased developments, also applies to this issue.

Schedule of Evidence Required

Req.	Design Stage	Post Construction Stage
1	<p>Marked-up site plan or map highlighting:</p> <ul style="list-style-type: none"> • Location of assessed building • Location and type of amenities • The route to the amenities • Plan/map scale 	<p>Assessor's building/site inspection and photographic evidence confirming:</p> <ul style="list-style-type: none"> • The existence of the local amenities • The route and distance to the amenities.
	<p>Where the amenities do not currently exist, but are due to be developed, a letter from the client/developer confirming:</p> <ul style="list-style-type: none"> • The location and type of amenities to be provided • The timescale for development of the amenities. 	<p>Evidence as outlined at the design stage of assessment.</p> <p>OR</p> <p>As above where amenities developed, or under development at the time of post construction review/assessment.</p>

Additional information

Relevant definitions

None.

References

1. Planning Policy Guidance Note 13 – “*Transport*”, Department for Transport, 2002.

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Tra 3 – Cyclist facilities

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

Credit aim

To encourage building users to cycle by ensuring adequate provision of cyclist facilities.

Credit criteria

Credits	
1	Where evidence provided demonstrates that covered, secure and well-lit cycle storage facilities are provided for all <i>building users</i> .
2	Where, in addition to the above, adequate changing facilities are provided for staff use.

Compliance requirements

The following demonstrates compliance:

First credit – Primary schools

1. A minimum of five *compliant cycle storage spaces* have been provided for each form/class in any one year group.

For example: where a primary school has been designed to accommodate 3 classes per year, a total of 15 *compliant cycle storage spaces* are provided for the whole school.

First credit – Secondary schools & Further Education colleges

1. The number of *compliant cycle storage spaces* provided is as follows:
 - a. 10% of *building users* up to 500 **PLUS**
 - b. 7% for *building users* in the range of 501 – 1000 **PLUS**
 - c. 5% for *building users* over 1000

Second credit – Primary & secondary schools & Further Education colleges

1. The first credit must be achieved.
2. At least two of the following *compliant facilities* must be provided for the *building users*:
 - a. Compliant showers
 - b. Compliant changing facilities and lockers for clothes
 - c. Compliant drying space for wet clothes

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Min. credits to achieve rating	-	-	-	-	-

Compliance notes	
New Build	There are no additional or different requirements to those outlined above specific to new-build projects.
Refurbishment	There are no additional or different requirements to those outlined above specific to refurbishment projects.
Extensions to existing buildings	Refer to the compliance note below on existing compliant facilities.
Compliant cycle storage space	<p>Compliant cycle storage facilities are those that meet the following:</p> <ul style="list-style-type: none"> • The space is covered overhead and protected from the rain • The covered area and the cycle racks are set in or fixed to a permanent structure (building or hardstanding) and allow both the wheel and frame to be locked securely (e.g. Sheffield type). Or racks are located in a locked structure fixed to or part of a permanent structure with CCTV surveillance. • There is a minimum distance of 1.0m between cycle racks, where the racks allow for two-sided parking, and 0.8m for one-sided parking to enable bikes to be easily stored and accessed. • Racks positioned in a circular array are spaced in accordance with the guidance in the New Metric Handbook ^[5]. • There is a minimum distance from any obstruction e.g. wall (located either to the side of the stand or in front of it) of 300mm for single-sided use and 900mm for double-sided use. • Adequate lighting is provided in accordance with BS5489 Part 1 – <i>Lighting of roads and amenity areas</i>. • The facilities are in a prominent site location that is viewable from the building. • The majority of the cycle racks are within 100m of a building entrance (ideally within 50m).
Vertical bike racks	Vertical racks, which allow direct access (without the need to get alongside the locked bike) and permit one bike per vertical stack can comply with the requirements (provided all other requirements are met). For this type of rack, the distance between each rack can be less than 1.0m but not less than 600mm (the typical width of a bike across the handlebars).
Non compliant cycle racks	<p>These types of cycle storage devices do not comply with BREEAM:</p> <ul style="list-style-type: none"> • Hooks and wall attachments • Single wheel (butterfly) bike rack holders (these racks provide less security and can cause damage to bike wheels).
Compliant showers	One shower must be provided for every 10 cycle storage spaces and both male and female users catered for i.e. either separate showers within shared gender-specific facilities or single shower cubicles and changing space for mixed use. The showers can be available for others

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	to use in addition to cyclists.
Compliant changing facilities & lockers	<p>Changing facilities and locker requirements;</p> <ul style="list-style-type: none"> For each shower provided, there is a minimum of 1m² of changing space adjacent to the shower(s) with hooks for hanging clothes. The number of lockers is at least equal to the number of cycle spaces provided. Lockers are either in or adjacent to compliant changing rooms. Where the changing space is a cubicle the locker(s) must not be located within the cubicle. Each locker is at least 900mm X 300mm X 450mm, or a locker with dimensions that provide an equivalent volume of storage space. Both male and female users are catered for i.e. either gender specific, shared facilities or single changing cubicles in mixed use areas. Toilet/shower cubicles do not count as changing facilities.
Compliant drying space	The drying space (for wet clothes) must be a specially designed and designated space with adequate heating/ventilation. A plant room is not a compliant drying space.
Schools only	
Showers	The provision of showers for staff and pupils must be separate.
Less than 100 pupils	Where there are less than 100 pupils, a minimum of 2 showers must be provided for pupils with one male and one female shower (where applicable). A minimum of one shower for staff should be provided in all cases.
Secondary schools	In secondary schools, the cycle storage facilities must be located in a prominent location which is overlooked by reception/school offices or the staffroom.
Number of classes	Where there are varying numbers of forms/classes per year, the calculation of <i>compliant cycle spaces</i> must be based on the year with the greatest number of classes/forms.
Nurseries	When assessing a school with a nursery, the nursery pupils should not be included in the calculation of the number of required <i>compliant cycle spaces</i> . Nursery staff must be accounted for in the calculation (if relevant to the requirements).
Nursery building on an existing school site	<p>For an assessment of a nursery building on an existing school site, the credit can be assessed in one of two ways:</p> <ol style="list-style-type: none"> The nursery can share cycle facilities provided by the school. In this case the required number of <i>compliant cycle storage spaces</i> must be based on the number of staff and students for the school in addition to the nursery staff. This is to ensure there are adequate cycle facilities for the school and the nursery. The assessment is based on the provision of <i>compliant cycle</i>

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	<i>storage space</i> dedicated for use by the nursery staff and/or parents (i.e. not shared with the existing school).
Schools & Further Education Colleges	
Existing compliant facilities	For assessments of new <i>infill</i> buildings on an existing site, where there are existing compliant facilities, such facilities can be assessed against the requirements of this credit. The number of existing compliant facilities must be large enough to cater for the building users of the assessed building, in addition to the users from any existing buildings.
Minimum number of facilities	Where more than the minimum number of compliant cycle spaces is provided, it is not necessary to also provide more than the minimum number of showers/lockers/changing facilities.
Building users	Where the term building users is referenced, this refers to the staff and pupils/students. The required provision accounts for other community users who will make use of the building, but it is not necessary to estimate and include within the calculation the number of predicted community users.
Schools	
City centre locations	In city centre locations the requirements for <i>compliant cycle spaces</i> can be reduced by 50% where at least two of the available BREEAM credits for provision of public transport (T1) have been awarded.
Further Education colleges	
City centre locations	Sites in city centre locations can reduce by 50% the requirements for <i>compliant cycle spaces</i> where at least three of the available BREEAM credits for provision of public transport (T1) have been awarded.
Rural locations	Sites in rural locations can reduce by 50% the requirements for <i>compliant cycle spaces</i> where the average building user commuting distances are likely to be greater than 10 miles. A rural location is one where the site is on land clearly not within or on an urban boundary; this includes village locations and green field sites.

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Schedule of Evidence Required

Req.	Design Stage	Post Construction Stage
First credit and Second credit		
1	<p>Site plan, design drawings and/or a copy of the specification confirming:</p> <ul style="list-style-type: none"> • The location of the cycle storage facilities • The number of cycle spaces provided • The type, dimensions and layout of cycle racks • The materials and construction specified for the facility. • The lighting for the facility is in accordance with BS5489 Part 1. • Building occupancy or, where relevant, net lettable/floor area. <p>Where the building is in a city centre location, and the benchmarks reduced, evidence as outlined under BREEAM credit T1 demonstrating the relevant number of credits achieved.</p>	Assessor's building/site inspection and photographic evidence confirming the installation of the compliant facilities.
2	<p>Design drawings or a copy of the specification confirming:</p> <ul style="list-style-type: none"> • Number of showers • Changing room • Secure locker locations, dimensions and numbers • Drying space 	Assessor's building/site inspection and photographic evidence confirming the installation of the compliant facilities.

Additional information

Relevant definitions

None.

References

1. "Providing for cyclists - A code of practice", Sustrans/cyclists' Public affairs group/CTC, 1997.

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2. Transport for London Street Management “*Cycle Parking Standards TfL Proposed Guidelines*”, TFL.
3. “*London Cycling Design Standards*”, Transport for London, 2005.
4. BS 5489-1 :2003 Code of practice for the design of road lighting “*Lighting of roads and public amenity areas*”, BSI.
5. “*Metric handbook – planning and design data*”, Adler, Architectural Press 3rd Ed. 2007.
6. Information Sheet FS19 “*Cycle parking for schools*”, Sustrans, 1999.

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Transport
Tra 4 – Pedestrian and cyclist safety

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

Credit aim

To recognise and encourage the provision of safe and secure pedestrian and cycle access routes on the development.

Credit criteria

Credits	
1	Where evidence provided demonstrates that the site layout has been designed in accordance with best practice to ensure safe and adequate pedestrian and cycle access.

Compliance requirements

The following demonstrates compliance:

1. Where external site areas form part of the assessed site and these areas contain vehicle access roads, parking and/or pedestrian access to the building, adequate cycle lanes and pedestrian pathways must be provided. If the building does not have any external areas and internal access is directly from the public highway/footpath, then the credit(s) can be awarded on a default basis

Cycle access requirements

2. The cycle lanes have been designed and constructed in accordance with the guidance in the National Cycle Network "*Guidelines and Practical Details – issue 2*", Sustrans^[1] and the relevant parts of Appendix VI *NCN Design and Construction Checklist*
3. The cycle lanes and pedestrian paths meet the following minimum width dimensions:
 - a. Where pedestrian and cycle routes are shared the minimum total width of the combined path is 3.0m
 - b. Where the cycle lane is segregated from both the pedestrian route and carriageway the minimum width of the cycle path is 2.0m and the minimum width of the pedestrian path is 1.5m
 - c. Where the cycle route forms a part of the carriageway, the minimum width of the lane is 1.5m

Minimum widths should not be regarded as the design target, where possible best practice as detailed in the Sustrans^[1] and DfT^[2] guidance must be aimed for.

4. Cycle lanes provide direct access to any cycle storage facilities provided on the site, without the need to deviate from the cycle path and, if relevant, connect to offsite cycle paths where these run adjacent to the development's boundary.

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Pedestrian access requirements

5. Onsite footpaths connect to public footpaths off site, providing access to local transport nodes and other offsite amenities (where present).
6. Where provided, drop-off areas are designed off the access road and provide direct access to pedestrian pathways/areas, therefore avoiding the need for the pedestrian to cross vehicle access routes.
7. Where dedicated pedestrian crossing of a vehicle access route is provided, the road is raised to the pavement level (i.e. the pavement is not lowered to road level).
8. For larger developments with a high number of public users/visitors, pedestrian pathways must be signposted to other local amenities off site, including public transport nodes.

Combined cyclists and pedestrian access requirements

9. Delivery areas are not accessed through parking areas and do not cross or share pedestrian and cyclist routes and other outside amenity areas accessible to building users and general public.
10. Lighting design of pedestrian pathways and cycle paths on site are in compliance with CIBSE Lighting Guide 6, 1992 (LG6)^[6] and BS5489 Part 1^[5].

Compliance notes	
New Build	There are no additional or different requirements to those outlined above specific to new-build projects.
Refurbishment	There are no additional or different requirements to those outlined above specific to refurbishment projects.
Extensions to existing buildings	There are no additional or different requirements to those outlined above specific to the assessment of extensions to existing buildings.
NCN Design and Construction checklist	The checklist can be downloaded from: http://www.sustrans.org.uk/webfiles/guidelines/appendix.pdf
Covered parking area	Where the assessed building has no external areas but does have a covered parking facility and cyclists and/or pedestrians access the assessed building via this area, then the requirements apply and this area must be assessed against them.

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Tra 4 – Pedestrian and cyclist safety

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Schedule of Evidence Required

Req.	Design Stage	Post Construction Stage
1 & 3-9	A scaled proposed site plan, specification and/or design details highlighting all necessary features and dimensions.	Assessor's building/site inspection and photographic evidence confirming compliance. AND/OR 'As built' site plan and design details.
2	A copy of the specification or scaled proposed site plan confirming: <ul style="list-style-type: none"> • Cycle routes have been or will be designed in accordance with the best practice guidance^[1] <p>AND</p> <ul style="list-style-type: none"> • A signed and dated copy of the <i>NCN Design and Construction Checklist</i> from the design/project team (or completed by the assessor using design information). 	A signed and dated post construction copy of the <i>NCN Design and Construction Checklist</i> from the design/project team (or completed by the assessor during their site visit).
10	A copy of the specification, site plan and/or manufacturer's technical details. confirming: <ul style="list-style-type: none"> • External lighting design strategy. 	Assessor's building/site inspection and photographic evidence confirming compliant installation. The assessor is not expected to check every detail but that the lighting strategy is broadly compliant with the relevant guidance, demonstrated by checking compliance at their discretion with select key issues.

Additional information

Relevant definitions

None.

References

1. The National Cycle Network – “*Guidelines and Practical Details issue 2*”, Sustrans, 1997. (www.sustrans.org.uk/default.asp?sID=1149001882109)

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Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

2. LTN 2/04 – “*Adjacent and Shared Use Facilities for Pedestrians and Cyclists*”, DfT, 2005. (www.dft.gov.uk/consultations/archive/2004/ltnwc/ltn204adjacentandsharedusefa1692?page=1)
3. Local Transport Note 2194: “*Directional Information Signs*” - Interim Design Note, DfT.
4. Information Sheet FF04 “*Shared Use Routes*”, Sustrans, 1998.
5. BS5489-1:2003 “*Lighting of roads and public amenity areas*”, BSI.
6. Lighting Guide 6 (LG6) - “*The outdoor environment*”, CIBSE, 1992.
7. <http://www.saferoutestoschools.org.uk/>.

BREEAM : Education : 2008
Transport
Tra 5 – Travel plan

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

Credit aim

To recognise the consideration given to accommodating a range of travel options for building users, thereby encouraging the reduction of user reliance on forms of travel that have the highest environmental impact.

Credit criteria

Credits	
1	Where evidence provided demonstrates that a travel plan has been developed and tailored to the specific needs of the <i>building users</i> .

Compliance requirements

The following demonstrates compliance:

1. A travel plan has been developed as part of the feasibility and design stages which considers all types of travel relevant to the building type and *users*.
2. The travel plan is structured to meet the needs of the particular site and takes into consideration the findings of a site-specific transport survey and assessment that covers the following (as a minimum):
 - a. Where relevant, existing travel patterns and opinions of existing *building or site users* towards cycling and walking so that constraints and opportunities can be identified
 - b. Travel patterns and transport impact of future *building users*
 - c. Current local environment for walkers and cyclists (accounting for visitors who may be accompanied by young children)
 - d. Disabled access (accounting for varying levels of disability and visual impairment)
 - e. Public transport links serving the site
 - f. Current facilities for cyclists
3. The travel plan includes a package of measures that have been used to steer the design of the development in order to meet the travel plan objectives and minimise car-based travel patterns. This is demonstrated via specific examples such as:
 - a. Providing parking priority spaces for car sharers
 - b. Providing dedicated and convenient cycle storage and changing facilities
 - c. Lighting, landscaping and shelter to make pedestrian and public transport waiting areas pleasant
 - d. Negotiating improved bus services, i.e. altering bus routes or offering discounts
 - e. Restricting and/or charging for car parking
 - f. Requirements for lobby areas where information about public transport or car sharing can be made available

BREEAM : Education : 2008
Transport
Tra 5 – Travel plan

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

- g. Pedestrian and cycle friendly (for all types of user regardless of the level of mobility or visual impairment) via the provision of cycle lanes, safe crossing points, direct routes, appropriate tactile surfaces, well lit and signposted to other amenities, public transport nodes and adjoining offsite pedestrian and cycle routes.

Compliance notes	
New Build	There are no additional or different requirements to those outlined above specific to new-build projects.
Refurbishment	There are no additional or different requirements to those outlined above specific to refurbishment projects.
Extensions to existing buildings	There are no additional or different requirements to those outlined above specific to the assessment of extensions to existing buildings.
Building users	Where the term <i>building users</i> is referenced in this BREEAM credit it refers to staff, pupils/students, parents, community users and personnel who make deliveries to the development.
Existing Travel Plan	The credit can be awarded if the building being assessed is a refurbishment or infill new build on an existing site that has an existing up-to-date travel plan that is compliant with BREEAM and applicable to all building users (in the existing and assessed buildings).

Schedule of Evidence Required

Req.	Design Stage	Post Construction Stage
1-3	A copy of the Travel Plan. A copy of the site-specific transport survey/assessment.	The evidence required at this stage is the same as that outlined at the design stage.
3	A marked-up copy of the site plan demonstrating examples of design measures, implemented in support the travel plan's findings. OR Where a detailed site plan is not available, a formal letter from the client confirming that measures will be implemented into the final design in support the travel plan's findings.	Assessor's building/site inspection and photographic evidence confirming: <ul style="list-style-type: none"> The installation of measures that support the travel plan.

BREEAM : Education : 2008
Transport
Tra 5 – Travel plan

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

Additional information

Relevant definitions

Travel Plan: A travel plan is a strategy for managing all travel and transport within an organisation, principally to increase choice and reduce reliance on the car by seeking to improve access to a site or development by sustainable modes of transport. A travel plan contains both physical and behavioural measures to increase travel choices and reduce reliance on single-occupancy car travel.

References

1. "A travel plan resource pack for employers", DfT, 2000.
2. "A good practice guide to green travel plans" BCO, 2004.
3. "The Essential Guide to Travel Planning", DfT, 2008.
4. Transport Energy Best Practice "A Guide on Travel Plans for Developers", DfT, 2005.
5. Traffic Advisory Leaflet 2/00 "Framework for a local walking strategy", DETR, 2000.
6. BS 8300:2001 "Design of buildings and their approaches to meet the needs of disabled people – code of practice", BSI, 2001.
7. Approved Document Part M "Access to and Use of Buildings", ODPM, 2006.
8. "Guidance on the use of Tactile Paving Surfaces", DETR & The Scottish Office, 1998.
9. "Building Sight", RNIB, 1995.
10. Safe Routes to Schools Information Sheet FS16 "Developing a School Travel Plan", Sustrans, 2004.

BREEAM : Education : 2008
Transport
Tra 6 – Maximum car parking capacity

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

Credit not assessed under this scheme.

BREEAM : Education : 2008
Transport
Tra 7 – Travel information point

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

Credit not assessed under this scheme.

BREEAM : Education : 2008
Transport
Tra 8 – Deliveries and manoeuvring

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

Credit aim

To ensure that safety is maintained and disruption due to delivery vehicles minimised through well-planned layout and access to the site.

Credit criteria

Credits	
1	Where evidence provided demonstrates that vehicle access areas have been designed to ensure adequate space for manoeuvring delivery vehicles and provide space away from manoeuvring area for storage of refuse skips and pallets.

Compliance requirements

The following demonstrates compliance:

1. Parking and turning areas are designed for simple manoeuvring according to the type of delivery vehicle likely to access the site, thus avoiding the need for repeated shunting.
2. There is a separate parking area for waiting goods vehicles, away from the manoeuvring area and staff/visitor car parking.
3. Delivery areas are not accessed through parking areas and do not cross or share pedestrian and cyclist routes and other outside amenity areas accessible to building users and general public.
4. There is a dedicated space for the storage of refuse skips and pallets away from the delivery vehicle manoeuvring area and staff/visitor car parking.

Compliance notes	
New Build	There are no additional or different requirements to those outlined above specific to new-build projects.
Refurbishment	There are no additional or different requirements to those outlined above specific to refurbishment projects.
Extensions to existing buildings	There are no additional or different requirements to those outlined above specific to the assessment of extensions to existing buildings.

BREEAM : Education : 2008
Transport
Tra 8 – Deliveries and manoeuvring

Minimum BREEAM Standards					
Rating Level	P	G	VG	E	O
Min. credits to achieve rating	-	-	-	-	-

Small buildings/units	For the purpose of this credit, smaller buildings/units (i.e. <200m ²) and developments where heavy goods vehicles are unlikely to access the site, the requirements for the manoeuvring area need be sized only to accommodate large delivery vans (i.e. transit type or similar).
No vehicle delivery and manoeuvring areas	This BREEAM issue is not assessed where the development does not have a vehicle delivery and manoeuvring area. In such cases this issue will be filtered from the list of relevant credits by the assessor's spreadsheet tool.

Schedule of Evidence Required

Req.	Design Stage	Post Construction Stage
1-3	<p>Proposed site plan clearly showing:</p> <ul style="list-style-type: none"> • Manoeuvring area • Delivery vehicle waiting area • Designated area for skips/pallets <p>Appropriate documentation or correspondence from the design team confirming:</p> <ul style="list-style-type: none"> • Likely vehicle delivery type that will access the development. • Predicted frequency of deliveries 	Assessor's building/site inspection and photographic evidence confirming the existence of a compliant delivery area.

Additional information

Relevant definitions

None.

The Metric Handbook contains details of typical delivery/freight vehicle sizes and turning circles.

References

1. "Metric handbook – planning and design data", Adler, Architectural Press 3rd Ed. 2007.