

SILVERTOWN TUNNEL

# List of Abbreviations and Glossary of Terms for Consultation Documents

October 2015

## SUMMARY

This document provides a list of abbreviations and glossary for key terms used across our suite of Consultation Documents.

All these documents are available on our website

[www.tfl.gov.uk/Silvertown-tunnel](http://www.tfl.gov.uk/Silvertown-tunnel).

## List of Abbreviations

<b>Abbreviation</b>	<b>Full Name</b>
AADT	Average Annual Daily Traffic
AAWT	Average Annual Weekly Traffic
ABD	Area Benefitting from Defences'
ADS	Advance Directional Sign
AEP	Annual Exceedance Probability
ALARP	As Low As Reasonably Practicable
AMCB	Analysis of Monetised Costs and Benefits
ANPR	Automatic Number Plate Recognition
AOD	Above Ordnance Datum
APIS	Air Pollution Information System
AQDMP	Air Quality and Dust Management Plan
AQFAs	Air Quality Focus Areas
AQMA	Air Quality Management Area

AQS	Air Quality Strategy
ATC	Automated Traffic Counts
BAME	Black, Asian and Minority Ethnic
BAT	Best Available Techniques
BCR	Benefit to Cost Ratio
BGS	British Geological Survey
BNL	Basic Noise Level
BPM	Best Practicable Means
BSI	British Standards Institute
BTP	British Transport Police
CABE	Commission for Architecture and the Built Environment
CAMS	Catchment Abstraction Management Strategy
CAZ	Central Activities Zone
CBA	Cost Benefit Analysis
CC	Congestion Charging

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CCTV	Closed Circuit Television
CD&E	Construction, Demolition and Excavation
CDM	Construction Design and Management Regulations (2015)
CEMP	Construction Environmental Management Plan
CFA	Continuous Flight Auger
CIEEM	Chartered Institute of Ecology and Environmental Management
CIL	Community Infrastructure Level
CIRIA	Construction Industry Research and Information Association
CLOS	Cyclist Levels of Service
CLP	Construction Logistics Plan
CLR	Contaminated Land Report
CMP	Construction Management Plan
COBA-LT	Cost and Benefit to Accidents - Light Touch
CoC	Contaminants of Concern

CoCP	Code of Construction Practice
COSHH	Control of Substances Hazardous to Health
CPET	Central Point of Expertise in Timber
CRRN	Compliance Risk Road Network
CRTN	Calculation of Road Traffic Noise
CS	Construction Statement
CSH	Cycle Superhighways
CSM	Conceptual Site Model
CSOs	Combined Sewer Overflows
CTMP	Construction Traffic Management Plan
DAS	Design and Access Statement
DB	Drainage Board
DBFM	Design Build Finance and Maintain
DCLG	Department for Communities and Local Government
DCO	Development Consent Order

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DEFRA	Department for Environmental, Food and Rural Affairs
DfT	Department for Transport
DI	Distributional Impacts
DLR	Docklands Light Railway
DMP	Delivery Management Plan
DMRB	Design Manual for Roads and Bridges
DoH	Department of Health
DSRC	Dedicated Short Range Communication
EA	Environment Agency
EAL	Emirates Air Line
EAR	Economic Assessment Report
EC	European Commission
EclA	Ecological Impact Assessment
EDR	Engineering Design Report
EFT	Emissions Factors Toolkit

EHO	Environmental Health Officer
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ELHAM	East London Highway Assignment Model
ELWA	East London Waste Authority
EMP	Ecology Management Plan
EMS	Environmental Management System
EPA	Environmental Protection Act
EPB	Earth Pressure Balance
EPS	European Protected Species
EPR	Environmental Planning Regulations
EqIA	Equality Impact Assessment
ES	Environmental Statement
ESA	European Statement of Accounts
ESR	East and south-east region



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EQS	Environmental Quality Standard
EU	European Union
EWT	Excess Wait Time
FALP	Further Alterations to the London Plan
FFFS	Fixed Fire Fighting System
FRA	Flood Risk Assessment
FSC	Forestry Stewardship Council
FWEP	Flood Warning and Evacuation Plan
GC	Generalised Costs
GDP	Gross Domestic Product
GDPW	Gross Domestic Product per Worker
GGBS	Ground Granulated Blast furnace Slag
GHG	Greenhouse Gases
GIGL	Greenspace Information for Greater London
GIR	Ground Investigation Report

GJT	Generalised Journey Time
GLA	Greater London Authority
GLAAS	Greater London Archaeological Advisory Service
GNSS	Global Navigation Satellite Systems
GVA	Gross Value Added
HFS	High Friction Surfacing
HGV	Heavy Goods Vehicle
HIA	Health Impact Assessment
HMV	Heavily Modified Waterbodies
HRA	Hot Rolled Asphalt
HSE	Health and Safety Executive
HUDU	Healthy Urban Development Unit
HV	High Voltage
IAN	Interim Advice Note
IAQM	Institute of Air Quality Management

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IDB	Internal Drainage Board
IEMA	Institute of Environmental Management and Assessment
IER	Introductory Environmental Report
IHS	Integrated Household Survey
IoD	Index of Deprivation
IoMD	Index of Multiple Deprivation
IPC	Infrastructure Planning Commission
IPRG	Independent Peer Review Group
IUCN	International Union for Conservation of Nature
IWT	In Work Time
KPI	Key Performance Indicator
LACM	Local Air Quality Management
LAD	Local Authority District
LAEI	London Atmospheric Emissions Inventory
LB	London Borough

LBAP	Local Biodiversity Action Plan
LCAP	London Congestion Analysis Project
LED	Light-Emitting Diode
LDF	Local Development Framework
LEZ	Low Emission Zone
LGV	Light Goods Vehicle
LIP	Local Implementation Plan
LLAU	Limits of Land to be Aquired or Used
LLFA	Lead Local Flood Authority
LMVR	Local Model Validation Report
LNR	Local Nature Reserve
LOAEL	Lowest Observed Adverse Effect Level
LoD	Limits of Deviation
LOPR	London Office Policy Review
LoRDM	London Regional Demand Model

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LOW	List of Waste
LP	London Plan
LSOA	Lower Super Output Area
LSTOC	London Streets Tunnels Operations Centre
LTDS	London Travel Demand Survey
LTS	London Transportation Studies
LTT	Long Term Trend
LTVS	Longitudinal Tunnel Ventilation System
LU	London Underground
LV	Low Voltage
MCA	Maritime and Coastguard Agency
M&E	Mechanical & Electrical
MAGIC	Multi-Agency Geographic Information for the Countryside
MCC	Manual Classified Counts
MCZ	Marine Conservation Zone

MDD	Managing Development Document
MEDS	Mayor's Economic Development Strategy
MHWS	Mean High Water Spring
MMP	Materials Management Plan
MOL	Metropolitan Open Land
MoU	Measure of Uncertainty
MTS	Mayor's Transport Strategy
MWC	Main Works Contractor
NABSA	Not Aground But Safely Float
NERC	Natural Environment and Rural Communities
NHS	National Health Service
NICE	National Institute of Health and Care Excellence
NJUG	National Joint Utilities Group
NML	Noise Monitoring Location
NMU	Non-Motorised Users

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NN NPS	National Networks National Policy Statement
NNR	Natural Nature Reserves
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
NPSE	Noise Policy Statement for England
NPV	Net Present Value
NSIP	Nationally Significant Infrastructure Project
NTEM	National Trip End Model
OAPF	Opportunity Area Planning Framework
OBC	Outline Business Case
OLSPG	Olympic Legacy Supplementary Planning Guidance
ONS	Office for National Statistics
OSD	Over Site Development
OWT	Out of Work Time
PA	Public Accounts

PAC	Pre Application Consultation
PAVA	Public Address Voice Alarm
PCM	Pollution Climate Mapping
PCN	Penalty Charge Notice
PCU	Passenger Car Unit
PEIR	Preliminary Environmental Information Report
PER	Preliminary Engineering Report
PEMP	Project Environmental Management Plan
PERS	Pedestrian Environment Review System
PEVS	Portal Extract Ventilation System
PFA	Pulverised Fly Ash
PHE	Public Health England
PHV	Private Hire Vehicle
PINS	Planning Inspectorate
PLA	Port of London Authority



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PPG	Planning Policy Guidance
PPS	Planning Policy Statement
PPV	Peak Particle Velocity
PTAL	Public Transport Access Level
PTWA	Public Transport Waiting Area
PT	Public Transport
PV	Present Value
PVB	Present Value of Benefits
PVC	Present Value of Costs
QUADRO	Queues and Delays at Road Works
RA	Regeneration Area
RB	Royal Borough
RODS	Rolling Origin and Destination Survey
RR	Regeneration Report
RRT	Roads Response Team

RSA	Road Safety Audit
RSI	Road Side Interview
RSM	Road Space Management
RSPB	Royal Society for the Protection of Birds
RTF	Road Task Force
RTI	Road Traffic Incident
RUC	Road User Charging
RXHAM	River Crossings Highway Assignment Model
SAC	Special Areas of Conservation
SACTRA	Standing Advisory Committee on Trunk Road Assessment
SATURN	Simulation and Assignment of Traffic to Urban Road Networks
SCOOT	Split Cycle, Offset Optimisation Technique
SFRA	Strategic Flood Risk Assessment
SGI	Spheroidal Graphite Iron
SGV	Soil Guidelines Value

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SHLAA	Strategic Housing Land Availability Assessment
SINC	Site of Importance for Nature Conservation
SLM	Sound Level Meter
SLNT	Strategic Labour Needs and Training
SOAEL	Significant Observed Adverse Effect Level
SoCC	Statement of Community Consultation
SOCG	Statement of Common Ground
SoS	Secretary of State
SPA	Special Protection Areas
SPD	Supplementary Planning Document
SPG	Supplementary Planning Guidance
SPZ	Source Protection Zone
SR	Sensitivity Receptor
SRTTP	Sub-Regional Transport Policy
SSD	Stopping Sight Distance

SSR	Safety and Security Report
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
SWMP	Site Waste Management Plan
TA	Transport Assessment
TAG	Transport Analysis Guidance
TBM	Tunnel Boring Machine
TDSCG	Tunnel Design and Safety Control Group
TEE	Transport Economic Efficiency
TfL	Transport for London
TGNPPF	Technical Guidance to the National Policy Framework
TLRN	Transport for London Road Network
TMP	Traffic Management Plan
TRL	Transport Research Laboratory
TSCS	Thin Surface Course System

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TTT	Thames Tideway Tunnel
TUBA	Transport User Benefit Appraisal
TVIA	Townscape and Visual Impact Assessment
TWAO	Transport and Works Act Order
UK	United Kingdom
UKBAP	UK Biodiversity Action Plan
ULEZ	Ultra Low Emission Zone
UTC	Urban Traffic Control
UXO	Unexploded Ordnance
VfM	Value for Money
VMS	Variable Message Signs
VOC	Vehicle Operating Cost
VRM	Vehicle Registration Mark
VCR	Volume/Capacity Ratios
WAC	Waste Acceptance Criteria

WEEE	Waste Electronic and Electrical Equipment
WFD	Water Framework Directive
WHIASU	Wales Health Impact Assessment Support Unit
WHO	World Health Organisation
WI	Wider Impacts
WITA	Wider Impacts in Transport Appraisal
WRAP	Waste and Resources Action Programme
WRRR	Work Related Road Risk
ZVI	Zone of Visual Influence
TERM	Explanation
TERM	Explanation
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TERM	Explanation

## Glossary of Terms

Term	Explanation
Assessed Case	Scenario adopted for assessment of likely effects of the proposed scheme, with user charges set so as to balance the scheme's traffic, environmental, socio-economic and financial objectives.
Blackwall Tunnel	<p>A road tunnel underneath the River Thames in east London, linking the London Borough of Tower Hamlets with the Royal Borough of Greenwich, comprising two bores each with two lanes of traffic.</p> <p>The tunnel was originally opened as a single bore in 1897, as a major transport project to improve commerce and trade in London's east end. By the 1930s, capacity was becoming inadequate, and consequently, a second bore opened in 1967, handling southbound traffic while the earlier 19th century tunnel handled northbound.</p>
Bus and Goods Vehicle Lane	A dedicated highway lane that has restricted occupancy, available for use by buses, Heavy Goods Vehicles and taxis.
Bus Gate	<p>Bus gates are traffic signals often provided within bus priority schemes to assist buses and other permitted traffic when leaving a bus lane to enter or cross the general flow of traffic or to meter the flow of general traffic as it enters the road link downstream of the bus lane.</p> <p>Depending on their purpose, bus gates can be located remote from other signals or they can be positioned immediately upstream of a signal controlled junction, as a bus pre-signal.</p>
CDM (2015)	The Construction (Design and Management) Regulations 2015 set out the roles and responsibilities of parties

	involved in construction projects in relation to health and safety during the project life cycle including design, construction, operations and maintenance stages.
Contractor	Anyone who directly employs or engages construction workers or manages construction work. Contractors include sub-contractors, any individual self-employed worker or business that carries out, manages or controls construction work
Control Centre	Facility to deal with issues with over-height, illegal and unsafe vehicles going through Blackwall and Silvertown tunnels, and help manage traffic
Cut and Cover	A method of construction for shallow tunnels where a trench is excavated and roofed over with an overhead support system strong enough to carry the load of what is to be built above the tunnel
Design, Build, Finance and Maintain (DBFM)	<p>A DBFM company is typically a consortium of private sector companies, formed for the specific purpose of providing the services under the DBFM contract. This is also technically known as a Special Purpose Vehicle (SPV).</p> <p>The DBFM Company will obtain funding to design and build the new facilities and then undertake routine maintenance and capital replacement during the contract period, which is typically 25 to 30 years.</p> <p>The DBFM Company will repay funders from payments received from TfL during the lifespan of the contract. Receipt of payments from TfL will depend on the ability of the DBFM Company to deliver the services in accordance with the output specified in the contract and will be subject to deductions if performance is not satisfactory.</p>
Department for Transport	The government department responsible for the English transport network and a limited number of transport matters in Scotland, Wales and Northern Ireland that have



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(DfT)	not been devolved.
Detailed Design	The design that defines precisely the works that are to be constructed to meet the specified outputs.
Development Consent Order (DCO)	<p>This is a statutory order which provides consent for the project and means that a range of other consents, such as planning permission and listed building consent, will not be required. A DCO can also include provisions authorising the compulsory acquisition of land or of interests in or rights over land which is the subject of an application.</p> <p><a href="http://infrastructure.planninginspectorate.gov.uk/help/glossary-of-terms/">http://infrastructure.planninginspectorate.gov.uk/help/glossary-of-terms/</a></p>
Docklands Light Railway (DLR)	An automated light metro system serving the Docklands and east London area. The DLR is operated under concession awarded by Transport for London to KeolisAmey Docklands, a joint venture between transport operator Keolis and infrastructure specialists Amey plc
Earth Pressure Balance (EPB) Tunnel Boring Machine	A type of tunnel boring machine used in soft ground. The machine uses the excavated material to balance the pressure at the tunnel face. Pressure is maintained in the cutter head by controlling the rate of extraction of spoil through the removal Archimedes screw and the advance rate of the machine
Emirates Air Line (EAL)	A cable car service across the River Thames in east London, linking the Greenwich peninsula to the Royal Victoria Dock. The service is managed by TfL, and is part of the TfL transport network
Gasholder	A large container in which natural gas is stored near atmospheric pressure at ambient temperatures
Greenwave	Coordinated control of a series of traffic signals to allow continuous traffic flow in a given direction.

Heavy Goods Vehicle (HGV)	European Union term for any vehicle with a gross combination mass of over 3500kg
Illustrative Design	An example of how the proposals could be developed at the next stage of design as a result of engagement with the DBFM contractor, planning authority and other relevant stakeholders.
London Streets Tunnels Operations Centre (LSTOC)	LSTOC operates the traffic and tunnel safety systems for various road tunnels in London operated by Transport for London. LSTOC operations are fundamental to the safe and reliable operation of TfL's tunnels and performance of the corridors serviced by the London streets traffic control system
Limits of Land to be Acquired and Used (LLAU)	The extent of land and rights over land that will be needed temporarily to construct the Scheme, and permanently to operate, maintain and safeguard the Scheme (often referred to as 'the red line boundary')
Outline Design	Defines the design principles and freezes the scope of the project
Reference Case	An assumed 'future baseline' scenario, which represents the circumstances and conditions that we would anticipate in the future year without the implementation of the scheme, taking account of trends (for example in population and employment growth) and relevant developments (such as other committed transport schemes). The reference case is frequently used as a comparator for the 'with scheme' case, to show the effect of the scheme against the appropriate reference point.
Reference Design	Design proposals that the consultation and DCO application will refer to.

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Resilience	The term 'resilience' in a transport context describes the ability of transport networks to provide and maintain an acceptable level of service in the face of incidents and planned closures.
Secant Piles	Piles are vertical structural elements of deep foundations. Secant pile walls are formed by constructing intersecting reinforced concrete piles. The secant piles are reinforced with either steel rebar or with steel beams and are constructed by either drilling under mud or auguring. Primary piles are installed first with secondary piles constructed in between primary piles once the latter gain sufficient strength
Service Building, Tunnel Service Building, Portal Building	The building housing all control, power supply, and other essential equipment for the operation of the tunnel. Also houses firefighting control and ventilation equipment. Serves as a maintenance base and has the facility to become a standby operations room.
Sheet Pile	Sheet piles can be a temporary or permanent earth retention solution, providing support and reducing groundwater ingress. Steel sheets are driven into the ground, interlocking with neighbouring piles in order to create a continuous wall.
Slurry Shield (SS) Tunnel Boring Machine	A type of tunnel boring machine used in soft ground with very high water pressure or where ground conditions are granular (sands and gravels) such that a plug cannot be formed in the removal Archimedes screw. The cutter head is filled with pressurised slurry which applies hydrostatic pressure to the excavation face. The slurry also acts as a transport medium by mixing with the excavated material before being pumped out of the cutter head back to a slurry separation plant
Spoil	The material excavated by the Tunnel Boring Machine during the construction of the tunnel.

SuDS	Sustainable Drainage Systems (SuDS) are water management solutions designed to reduce the impact of surface water runoff from new and existing developments to the natural environment. The purpose of such systems is to improve water quality and store or reuse surface runoff to reduce the discharge rate to the watercourse.
Tension Piles	Piles are vertical structural elements of deep foundations. Tension piles used to resist uplift/pull-out loads
The O2	A large entertainment complex on the Greenwich peninsular, including an indoor arena, cinema, bars and restaurants. It is built largely within the former Millennium Dome
The Scheme	The construction of a new bored tunnel under the River Thames between the Greenwich peninsula and Silvertown, as well as necessary alterations to the connecting road network and the introduction of user charging at both Silvertown and Blackwall tunnels
Toucan Crossing	A signal controlled crossing that allows pedestrians and cyclists to cross a road safely.
Transport for London (TfL)	<p>A local government body responsible for most aspects of the transport system in Greater London. Its role is to implement transport strategy and to manage transport services across London.</p> <p>These services include: buses, the Underground network, Docklands Light Railway, Overground and Trams. TfL also runs Santander Cycles, London River Services, Victoria Coach Station and the Emirates Air Line.</p> <p>As well as controlling a 580km network of main roads and the city's 6,000 traffic lights, TfL regulates London's private hire vehicles and the Congestion Charge scheme.</p>
The Tunnel, Silvertown	A new bored tunnel under the River Thames between the Greenwich peninsula and Silvertown

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Tunnel	
Tunnel Boring Machine (TBM)	A machine used to excavate tunnels with a circular cross section. There are two main types of closed face TBMs: Earth Pressure Balance (EPB) and Slurry Shield (SS). Please see those terms for further explanation
Ventilation Building	Surface level structure housing ventilation equipment, fans and an exhaust shaft, used to move fresh air underground by drawing air from the tunnel and venting it to the atmosphere. Located adjacent to and integral with the Service Buildings.