

TransPlan is powerful software system for Traffic Analysis and Transport Planning. TransPlan features for:

- Signalized Intersection Capacity analysis as per Highway Capacity Manual (HCM) by Transportation Research Board,
- Traffic Analysis to obtain Peak Hour Factor, Seasonal Variation Factor, Traffic Homogeneous Sections, Tollable Traffic, ADT, AADT, Transport Demand Elasticity, Traffic Projections, Capacity and Level of Service (LOS),
- Equivalent Standard Axle Load (ESAL/MSA),
- Economic Analysis for a highway project
- Financial Analysis for a highway project
- Computation of Toll Rates
- Toolkit with guide for Road Asset Management.

TransPlan License is USB Dongle based, the package contains the following items:

1. Installation Setup DVD
2. Users Manual, and various Tutorials on real project data in separate DVD.
3. USB Dongle,

For procuring TransPlan we request you to send your Order/Request with your address complete with Post Code and Telephone number to our email addresses as mentioned below. Next, we shall send you the Invoice for making the payment. Once the payment is received we shall send the package to you by express courier within next two working days, informing by mail with the courier details for Tracking.

We request you to contact us, in case you want to discuss on any point.

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TransPlan[®]

The ultimate software system for Traffic Analysis and Transport Planning

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[Operating Systems: Microsoft Windows 7/Win8 with 32 / 64 Bit, Minimum 2 GB RAM, 100 GB HDD space]

A graphic advertisement for TransPlan software. The background is a long-exposure photograph of a busy highway interchange at night, showing light trails from cars and streetlights. The word "TransPlan" is written in large, yellow, serif font at the top left. Below it, a green banner contains the text "The Ultimate Traffic Analysis and Transport Planning Software" in white. In the bottom left corner, there is a logo for TechSOFT, which consists of a blue globe with a yellow grid and the word "TechSOFT" in a yellow box. To the right of the logo, the text "TechSOFT Engineering Services" is written in yellow, followed by "Web site: www.techsoftglobal.com" and "Email: techsoftinfra@gmail.com" in white.

TransPlan
The Ultimate Traffic Analysis and Transport Planning Software

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Signalized Intersection Capacity Analysis

The analysis contains a methodology for analyzing the capacity and level of service (LOS) of signalized intersections. The analysis must consider a wide variety of prevailing conditions, including the amount and distribution of traffic movements, traffic composition, geometric characteristics, and details of intersection signalization. The methodology focuses on the determination of LOS for known or projected conditions.

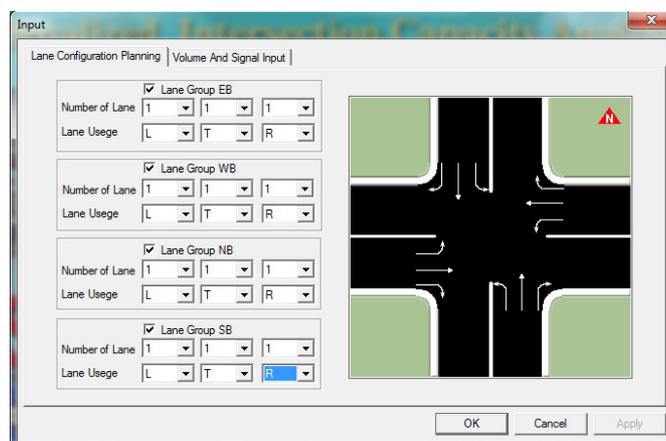
The methodology addresses the capacity, LOS, and other performance measures for lane groups and intersection approaches and the LOS for the intersection as a whole. Capacity is evaluated in terms of the ratio of demand flow rate to capacity (volume/capacity ratio), whereas LOS is evaluated on the basis of control delay per vehicle (in seconds per vehicle). Control delay is the portion of the total delay attributed to traffic signal operation for signalized intersections. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

Each lane group is analyzed separately. The capacity of the intersection as a whole is not addressed because both the design and the signalization of intersections focus on the accommodation of traffic movement on approaches to the intersection.

The capacity analysis methodology for signalized intersections is based on known or projected signalization plans. Two procedures are available to assist the analyst in establishing signalization plans. The first is the quick estimation method requires minimal field data and relies instead on default values for the required traffic and control parameters.

A detailed procedure is provided for estimating the timing plan at both pretimed and traffic-actuated signals. The procedure for pretimed signals provides the basis for the design of signal timing plans that equalize the degree of saturation on the critical approaches for each phase of the signal sequence. This procedure does not, however, provide for optimal operation.

The methodology is based in part on the results of a National Cooperative Highway Research Program (NCHRP) study. Critical movement capacity analysis techniques have been developed in the United States, Australia, Great Britain, and Sweden. Background for delay estimation procedures was developed in Great Britain, Australia, and the United State.



Traffic Analysis

Roads form the spine of any emerging economy. The economic benefits of a newly constructed/improved road, both in terms of direct and indirect benefits, are immense. An accurate estimate of the traffic that is likely to use the project road is very important as it forms the basic input in planning, design, operation and financing. A thorough knowledge of the travel characteristics of the traffic likely to use the project road as well as other major roads in the influence area of the study corridor is essential for future traffic estimation. The estimation of revenue through toll collection is important to assess the financial viability of the project and to finalize the financial covenants for the concession agreement. Thus an accurate assessment of the existing traffic and forecasting attains utmost importance for the road projects.

The primary objectives of the traffic studies are:

- To determine characteristics of traffic movement and to establish base year traffic demand
- To identify the zone of influence for the project roads and extent of influence based on O-D Survey
- To determine the travel pattern of goods and passenger vehicles
- To determine the percentage of right turning traffic at road intersections as a guide to the intensity of vehicle – vehicle conflict and geometric design
- To determine Vehicle Damage Factor (VDF) as an aid to pavement design
- To determine traffic growth rates; and
- To perform Capacity and Level of Service (LOS) analysis

The data collected from primary and secondary sources are recorded in Excel sheets, compiled, checked and corrected before further proceeding for analysis. Traffic data analysis is carried out, to understand traffic characteristics and travel pattern in the study area and to provide basic input for traffic capacity assessment.

The traffic flow is measured in terms of number of vehicles per unit time. Since traffic in developing countries is heterogeneous in nature, it is common practice to convert the traffic in terms of Passenger Car Units (PCUs). The traffic data (in vehicles) collected during field surveys have been compiled and converted into equivalent Passenger Car Units (PCU) to determine the Average Daily Traffic (ADT) in vehicles and their equivalent PCUs of vehicles. The adopted equivalent PCU Factors for different vehicle type are based on either IRC: 64-1990 or other relevant standard of the country.

Traffic fluctuates by the hour, by the day and by the month. Hence, it is essential to estimate a factor which provides a relationship between Annual Average Daily Traffic (AADT) and Average Daily Traffic (ADT) for the month corresponding to the traffic surveys. While hourly and daily fluctuations have been accounted for by conducting surveys for continuous 168 hours (24 hours x 7days), the Seasonal Variation Factor (SVF) is used to estimate AADT from ADT data.

The seasonal variation factor is estimated using the past fuel sales data collected from the existing petrol bunks (as the Project roads are non-tolled stretches and hence the toll revenue details of existing toll plazas, if any, not considered) along the project roads. The petrol (MS) and diesel (HSD) sales data in liters consumption has been collected for the past 1 year at various traffic volume count stations in the project highway and are analyzed for the monthly variation in the sales of fuel as per either IRC: 108 – 2015 or other relevant standard of the country. The analysis to assess the seasonal variation factor and detailed calculations are given in MS-Excel Worksheet.

Classified Traffic Volume Count

The analysis has been carried out to derive:

- Average Daily Traffic (ADT) for fast and slow moving vehicles
- Average Daily Variation and average Hourly Variation
- Annual Average Daily Traffic (AADT) after seasonal correction
- Traffic composition pattern for passenger, goods and non-motorized vehicles
- Peak hour traffic variation for passenger and commercial vehicles

Average Daily Traffic (ADT)

The classified traffic volume count data collected is analyzed to assess the traffic intensity along the project corridors. The summary of Average Daily Traffic (ADT in number of vehicles) at various survey locations along project sections is presented with salient findings. Detailed calculations are presented in MS-Excel Worksheet as **Annexure – 1**.

Annual Average Daily Traffic (AADT)

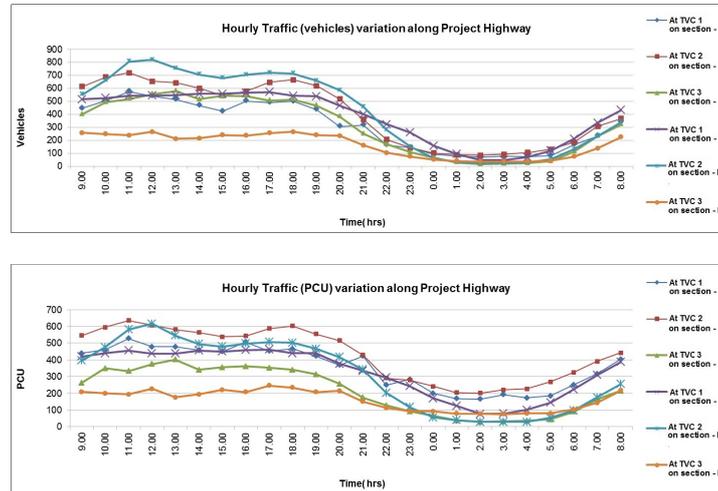
The Annual Average Daily Traffic (AADT in no of vehicles) at the survey locations is obtained by multiplying the Average Daily Traffic (ADT) with the seasonal correction factor. The AADT of vehicles for the base year at the various survey locations along the project highway sections is to be presented in the report by user.

Peak Hour Factor

The peak hour factor is defined as the traffic volume during peak hour expressed as a percentage of AADT. The day time (04:00 AM to 16:00 PM) and night time (16:00 PM to 04:00 AM) peak factors are calculated separately at the traffic count locations indicate fairly uniform distribution of the traffic volume during the day and night. Peak hour factors indicate slightly higher traffic volumes during the peak hour at night time. Full day wise (24 hours) peak hour factor calculation is to be presented in the report by user.

Traffic homogeneous sections

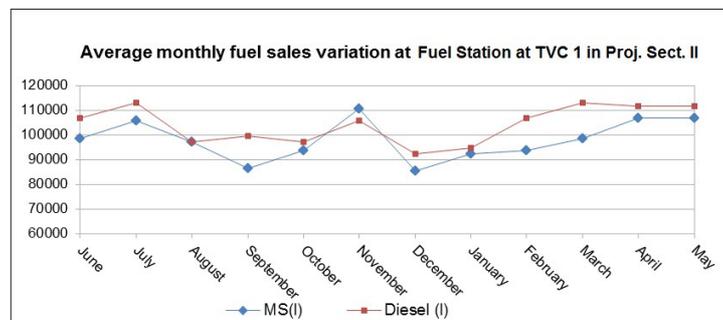
With a view to capture section-wise traffic flow characteristics, project stretches has been segmented into several traffic-homogeneous sections, based upon the locations of major intersections/ urban settlements that act as main collectors or distributors of traffic along the project corridors; i.e., sections of more or less similar traffic characteristics would form one homogeneous section. The traffic homogeneous sections identified are to be presented in the report by user.



Seasonal variation factor

Traffic fluctuates by the hour, by the day and by the month. Hence, it is essential to estimate a factor which provides a relationship between Annual Average Daily Traffic (AADT) and Average Daily Traffic (ADT) for the month corresponding to the traffic surveys. While hourly and daily fluctuations are accounted for by conducting surveys for continuous 168 hours (24 hours x 7days), the Seasonal Variation Factor (SVF) will be required to estimate AADT from ADT data.

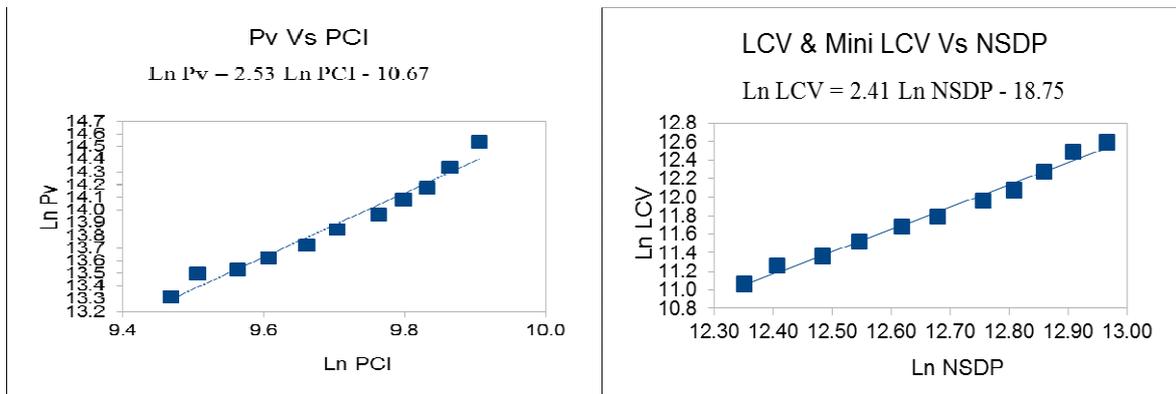
The seasonal variation factor is estimated using the past fuel sales data collected from the existing petrol bunks (as the project roads are commonly non-tolled stretches and hence the toll revenue details of existing toll plazas, may not be considered) along the project roads. The petrol (MS) and diesel (HSD) sales data in liters consumption are collected for the past 1 year at identified locations in the project section and are analyzed for the monthly variation in the sales of fuel as per either IRC: 108 – 2015 or other relevant standard of the country. The analysis to assess the seasonal variation factor and detailed calculations are given in MS-Excel Worksheet as **Annexure – 2**.



Transport Demand Elasticity

The most important parameter, on which the future forecast of traffic depends, is the 'Growth Rate'. However, for small stretches where most of the traffic neither originates nor ends within the stretch, growth potential of the origin and destination (Zone of Influence) need to be assessed to arrive at the growth potential of the stretch. It is ideal to identify future growth potential of each zone for goods and passenger movements and for each category of vehicles separately.

Econometric models



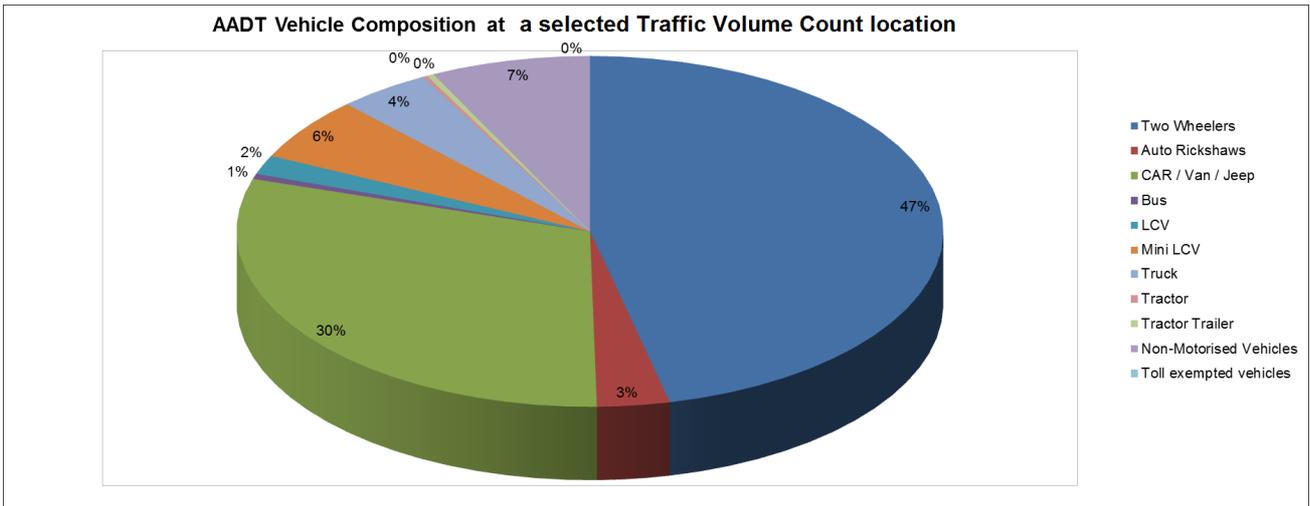
The following steps are adopted to derive the elasticity and growth factors

- Growth rate of registered vehicles in zone of influence is to be found out.
- Growth rates of NSDP/GSDP, Per Capita Income and population are to be obtained.
- For passenger vehicles and buses, number of registered vehicles is regressed with population data of the state.
- For trucks, number of registered trucks is regressed with NSDP.
- Mean value of average growth rate of registered vehicles and the growth rate obtained by regression analysis for all categories are found out at state level.

The elasticity analysis in terms of econometric models is to be presented for the State by the user. Detailed calculations are given in MS-Excel Worksheet as **Annexure – 3**.

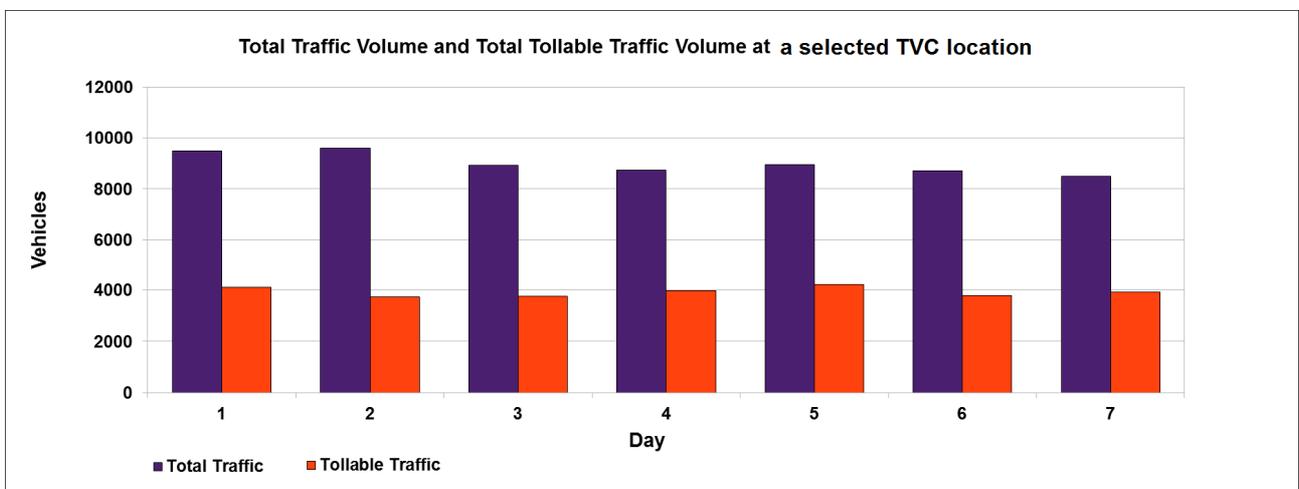
TRAFFIC PROJECTIONS

Based on the estimated traffic growth rates and the Annual Average Daily Traffic (AADT) observed at the TVC locations and traffic homogenous sections, the traffic on to the Project corridors for the horizon years is estimated as given in MS-Excel Worksheet as **Annexure – 4**.



CAPACITY AND LEVEL OF SERVICE (LOS) ANALYSIS

The Capacity of a facility is defined as the maximum hourly rate at which persons or vehicles can reasonably be expected to traverse a point or uniform section of the lane or roadway during a given time period under prevailing roadway, traffic and control conditions. By comparing the present traffic volume with the capacity of existing highways, their adequacy or deficiency can be assessed. Improvements and changes in the geometric features, junction features, traffic control devices and traffic management measures can be planned if capacity studies are considered.



Computation of ESAL / MSA

The Equivalent Standard Axle Load (sometimes expressed in millions as Million Standard Axle, MSA), is computed from axle load survey data, as given in MS-Excel Worksheet as **Annexure – 5**.

Standard Reference: (May be mentioned by the user)						
Equivalence Factors				Axle Load Spectrum		
	Gross Axle Weight (T)	Load Equivalency Factors		Axle Load Category		
		Single Axle	Tandem Axle			
6	900	0.0002	0.0000	0	0.900	
7	1810	0.002	0.0002	0.900	1.810	
8	2720	0.009	0.001	1.810	2.720	
9	3630	0.031	0.003	2.720	3.630	
10	4540	0.08	0.006	3.630	4.540	
11	5440	0.176	0.013	4.540	5.440	
12	6350	0.35	0.024	5.440	6.350	
13	7260	0.61	0.043	6.350	7.260	
14	8160	1.00	0.07	7.260	8.160	
15	9070	1.55	0.11	8.160	9.070	
16	9980	2.3	0.166	9.070	9.980	
17	10890	3.27	0.242	9.980	10.890	
18	11790	4.48	0.342	10.890	11.790	
19	12700	5.98	0.47	11.790	12.700	
20	13610	7.8	0.633	12.700	13.610	
21	14520	10	0.834	13.610	14.520	
22	15420	12.5	1.08	14.520	15.420	
23	16320	16.5	1.38	15.420	16.320	
24	17230	19	1.73	16.320	17.230	
25	18140	23	2.14	17.230	18.140	

The Vehicle Damage Factor (VDF) is also computed, for the design of pavement design,

Values in Red color are user input data									
Analysis Period = YR (Years)		15							
Vehicle Damage Factors at Toll Plaza									
Vehicle Type	VDF from Origin to Destination	VDF from Destination to Origin	Average VDF	Average Daily Traffic (ADT)	Growth Rate (GR) %	nGR	dGR	Equivalent Standard Axle (ESA)	
LCV	0.34	0.40	0.366303	4000	6	1.06	0.06	12448032.59	
2-Axle Truck	1.94	1.16	1.550260	3000	6	1.06	0.06	39511771.76	
3-Axle Truck	4.75	4.31	4.530497	2000	4	1.04	0.04	66223271.81	
MAV	8.91	7.16	8.036321	2000	4	1.04	0.04	117468662.2	
Bus	0.53	0.74	0.634450	1000	5	1.05	0.05	4997039.679	
Total ESA=								240648778.1	
Total MSA=								240.6487781	
Total Number of Vehicle Types = 1 to i Analysis Period = YR (Years) $nGR = 1.0 + GR[i] / 100.0;$ $dGR = GR[i] / 100.0;$ $ESA = 365.0 * ADT[i] * VDF[i] * (pow(nGR, YR) - 1.0) / dGR;$ $MSA = ESA / 1000000$									

Economic Analysis

After having assessed the project cost in the most reasonable manner, the next step is to quantify the various benefits to be accrued to the project due to improvement of a selected section of road. Through this study, the benefit component of the project can be quantified over a specified time horizon and measured by a common yardstick.

The economic cost is primarily computed by multiplying a factor with the financial cost. This generally excludes prices, taxes, duties and royalties. It may be important to mention that the cost of construction and maintenance of Toll Plaza are not included in the economic analysis as these are incurred for the specific purpose of toll collection. While conducting project feasibility exercise, the economic benefits to be accrued from investment in road works can be measured in terms of reduction in vehicular delays and vehicle operation costs (VOC). It may be mentioned that the benefits derived from the investment of Toll Plaza are only financial returns.

In order to work out 'Economic Internal Rate of Return (EIRR)', an attempt can be made to carry out an analysis based on with and without project condition, so that the comparison of cost and benefit, in economic terms, can be made in a realistic manner.

This kind of analysis generally demonstrates the expected return to the society from the proposed investment during the project life. Usually this return, known as EIRR, is compared with the breakeven point of the Government's EIRR and other international funding agencies, such as World Bank, and ADB (Asian Development Bank), so as to take an appropriate decision for investment.

There are a number of components associated with carrying out this study of economic feasibility as presented under.

- (i) Estimation of design year traffic
- (ii) Estimation of capital and maintenance cost at economic prices along with capital cost phasing
- (iii) Estimation of economic benefits
- (iv) Composition of annual stream of cost as against benefit
- (v) Estimation of EPRR
- (vi) Conduct of sensitivity analysis by assessing the effects of adverse changes in major variables on EIRR

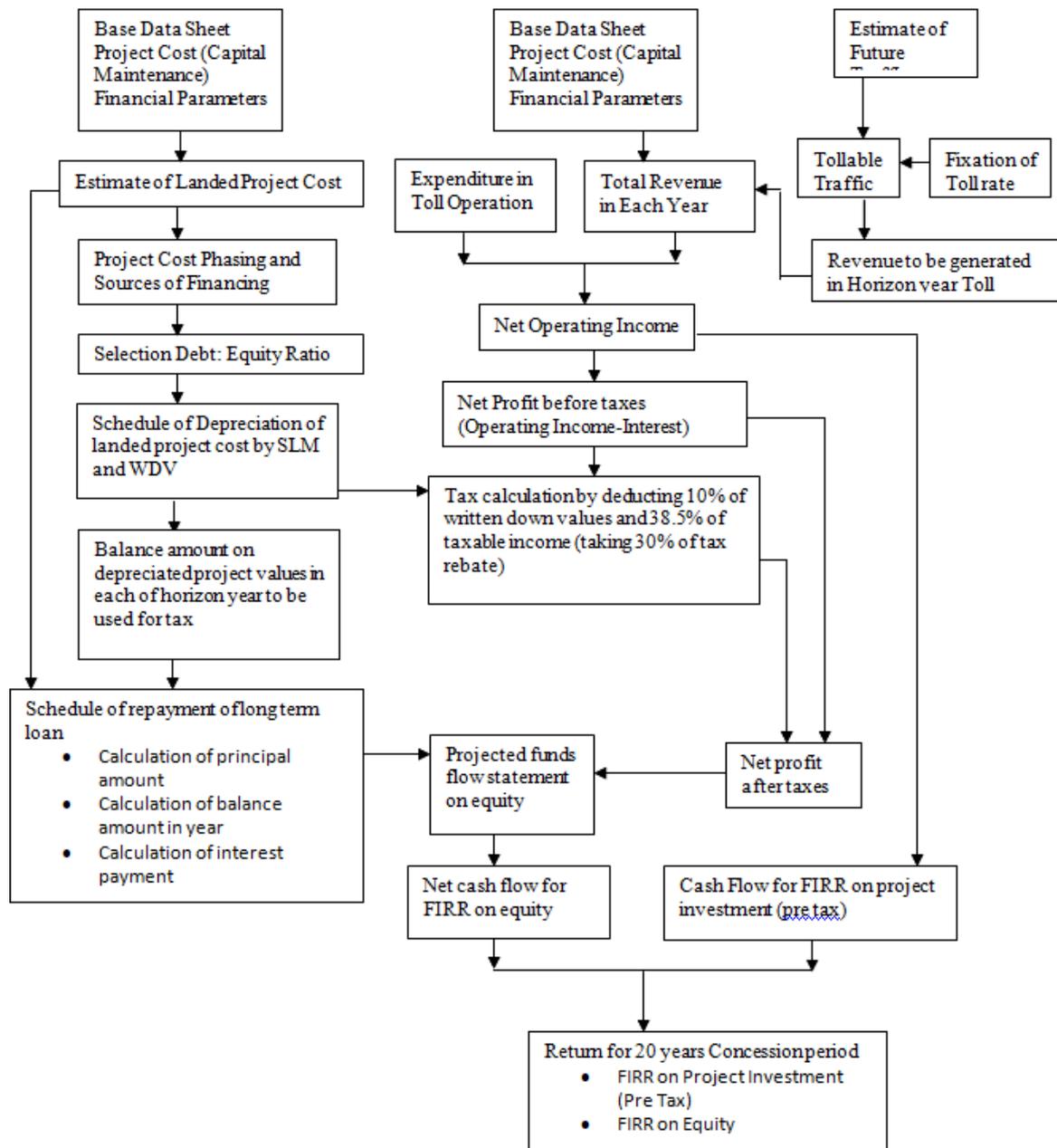
Financial Analysis

In order to carry out the financial analysis, it is extremely important to assess the revenue to be generated from the project after levying the toll on various types of traffic. The primary intension in carrying out the study is to determine the recovery of investment. It is therefore necessary to understand the analysis mechanism of financial viability through a number of financial models such a BOLT (Built Operate Lease and Transfer) and BOT (Built Operate and Transfer). For this analysis, BOT model is used. Hence, the participation of the private entrepreneur for such a project that can be built and operated by them and then be transferred to the government after some period, as decided by the government is very important. These basically help to reduce the financial burden on the government, wherein private participation is encouraged in developing these kinds of projects. In view of the above, a detailed financial analysis is presented to arrive at commercial viability. The financial mechanism through which the viability of the project is determined is explained in subsequent sections.

Approach of Financial Analysis

This is to assess the extent to which the investment can be recovered through the toll revenue mechanism. Financial analysis includes finances to be made available through debt and equity loan repayment, servicing, taxation and depreciation. The commercial viability of the project is examined by working out the 'Financial Internal Rate of Return (FIRR)' on equity investment and FIRR on total investment. The details of calculation of FIRR are presented in subsequent analysis. The flow diagram of the Financial Analysis is as shown below,

Flow Chart for Financial Analysis



Computation of Toll Rates

TransPlan features for Computation of Toll Rates as per Whole Sale Price Index (WPI), Computation Guidelines and Toll Notification to be published in Newspapers and Web Sites of the Project Authorities.

Project Name: Four laning of Federal Highway FH-4 from km. 115.00 to km. 193.00 on DBFOT (Annuity) Basis						
1						
2	User Fee Applicable at TP Km 141+000					
3						
4	SINGLE TRIP					
5						
6	WPI A (Whole Sale Price Index of the Week ending on or subsequent Month immediately preceding date of revision under these rule 5)	2017 DEC	355.6	WPI after conversion to 1993-94 base year (115.7*1.873*1.641) Web link: eaindustry.nic.in/download_data_9394.asp and eaindustry.nic.in/linkinfo_factor9394.asp		
7	WPI B (Whole Sale Price Index of the Week ending on particular month of revision under these rule 5)	2007 JAN	208.7	Base year 1993-94		
8	For road Section of 76.36 kms					
9	Type of Vehicle	Base rate of fee per KM (in Dollars/Rupees) for base year	Base rate of Fee per KM (in Dollars/Rupees) for Year 2018-	Applicable Fee per KMS (in Dollars/Rupees) for Year 2018-	Applicable Fee for the section (in Dollars/Rupees) for Year 2018-19	Rounded to Nearest \$/Rs. 5/-
10	CAR, JEEP, VAN OR LMV	0.65	0.8645	1.1079	84.5992	85
11	LCV, LGV or Mini Bus	1.05	1.3965	1.7897	136.6615	135
12	Bus / Trucks	2.20	2.9260	3.7498	286.3347	285
13	HCM or EME or MAV (3 to 6 Axles)	3.45	4.5685	5.8804	443.0273	450
14	Oversized Vehicle (7 or more axles)	4.20	5.5860	7.1588	546.6460	545
15						
16						
17	Daily Pass (2 single trips in day)					
18	For road Section of 76.360 kms					
19						
20	Type of Vehicle	Applicable Fee per KMS (in Dollars/Rupees) for Year 2018-19	Applicable Fee for the section (in Dollars/Rupees) for Year 2018-19	Applicable Fee for the section (in Dollars/Rupees) for Year 2018-19	Applicable Fee for the section (in Dollars/Rupees) for Year 2018-19	Rounded to Nearest \$/Rs. 5/-
21						
22	CAR, JEEP, VAN OR LMV	1.6619		126.8989		125
23	LCV, LGV or Mini Bus	2.6846		204.9922		205
24	Bus / Trucks	5.6247		429.5021		430
25	HCM or EME or MAV (3 to 6 Axles)	8.8206		673.5410		675
26	Oversized Vehicle (7 or more axles)	10.7382		819.9690		820
27						
28						
29	Monthly Pass (50 single trips in Month)					
30	For road Section of 76.360 kms					
31						
32	Type of Vehicle	Applicable Fee per KMS (in Dollars/Rupees) for Year 2018-19	Applicable Fee for the section (in Dollars/Rupees) for Year 2018-19	Applicable Fee for the section (in Dollars/Rupees) for Year 2018-19	Applicable Fee for the section (in Dollars/Rupees) for Year 2018-19	Rounded to Nearest \$/Rs. 5/-
33						
34	CAR, JEEP, VAN OR LMV	36.9300		2819.9748		2820
35	LCV, LGV or Mini Bus	59.6567		4555.3831		4555
36	Bus / Trucks	124.9933		9544.4909		9545
37	HCM or EME or MAV (3 to 6 Axles)	196.0133		14967.5781		14970
38	Oversized Vehicle (7 or more axles)	238.6267		18221.5323		18220

Toolkit Workbook and Guide for Road Asset Management

Sample Consequence Table - ROADS						
Category	1	2	3	4	Weight	Notes
Operational Impacts	Requires semi annual monitoring or repair	Requires monthly monitoring or repair	Requires weekly monitoring or repair	Unable to maintain or operate OR repair requires greater than one week	0.6	Reactive operational effort ab what is routine
Environment	Short term irritant (i.e. Dust)	Prolonged irritant (i.e. Dust) OR Aesthetic impact	Release of deleterious substances to environment (i.e. Hydraulic fluid, diesel fuel, etc.)	Release of deleterious substances to environment that result in a fine	0.8	O&G, fines to waterway, etc. Dust control Noise
Safety	Near miss	Minor injuries that do not require medical consultation	Injuries require medical consultation	Many people with major injuries OR fatality	1	Consider all road users - pedestrians, bikes, vehicular, R lights, signs, etc.
Travel Time	Travel time is increased for a period of < 48 hours	Travel time is increased for a period of 48 hours - one month	Travel time is increased for period of one month - four months	Travel time is increased for period of > four months	0.6	

Road Asset Management project

Data template guidance notes

Roads maintenance

Roads maintenance function definitions

Level 1. Asset type: Carriageways

Level 2. Asset Group

Area (square metre) based elements

Flexible pavements

Flexible composite pavements

Rigid concrete pavements

Rigid composite pavements

Linear elements

Level 3. Components that level 2 implicitly covers

Pavement layers

Other surface types, e.g. paved

Central reservation, roundabout, lay-by, traffic island, etc

Earthworks (embankments and cuttings, retaining walls height <1.35m)

Traffic calming

Fords and causeways

Kerbs

Line markings

Road studs

Road drainage elements (gullies, drains, etc, but not large structures)

Boundary fences and hedges

Hard strip/shoulder verges/vegetation

Level 1. Asset type: Footways and cycle tracks (attached to the road or segregated)

Level 2. Asset Group

Footways

Pedestrian areas

Footpaths

Cycle tracks

Level 3. Components that level 2 implicitly covers

Pavement layers

Other surface types, e.g. block paving, unbound materials

Level 1. Asset type: Structures

Level 2. Asset Group

Bridges (span>1.5m)
Cantilever road sign
Chamber / cellar / vault
Culverts (span >0.9m)
High mast lighting columns (height >1.35m)

Sign/signal gantries and cantilever road signs
Structural earthworks e.g. strengthened/reinforced soils (all structures with an effective retained height of 1.5m or more)
Subway: pipe
Tunnel (enclosed length of 150m or more)
Underpass / subway: pedestrian (span of 1.5m or more)
Underpass: vehicular
Special structure

Level 3. Components that level 2 implicitly covers

All elements identified on the CSS inspection pro forma
Smaller water-carrying structures are considered as road drainage

Level 1. Asset type: Highway lighting

Level 2. Asset Group

Lighting columns
Lighting unit attached to wall/wooden pole
Heritage columns
Illuminated bollards
Illuminated traffic signs

Level 3. Components that level 2 implicitly covers

Column and foundations
Bracket
Luminaries
Control equipment, cables
Control gear, switching, internal wiring cabling (within ownership)

Level 1. Asset type: Street Furniture

Level 2. Asset Group

Transport
Highway
Street scene/amenity

Level 3. Components that level 2 implicitly covers

Traffic signs (non-illuminated)
Safety fences
Pedestrian barriers
Street name plates
Bins
Bollards
Bus shelters
Grit bins
Cattle grids
Gates
Trees/tree protection, etc
Seating
Verge marker posts
Weather stations

Level 1. Asset type: Traffic management systems

Level 2. Asset Group

Traffic signals - different types
Pedestrian signals

Zebra crossings
In-station - complete installation
Information systems - variable message signs
Safety cameras - vehicle activation signs / real time passenger information

Level 1. Asset type: Land

Level 2. Asset Group

Freehold land
Rights land

Level 3. Components that level 2 implicitly covers

Features on the land are not taken into account in the valuation

Source: CIPFA Transport Infrastructure Asset Code

Financial data should specifically exclude:

School crossing patrol service / road safety teams
Street cleansing

Temporary traffic management at road works (temporary lights, Stop/Go systems utilized for non roads maintenance functions) CCTV if this is not part of the roads/highways management function (i.e. the maintenance responsibility and costs are borne by a separate part of the authority / organization and not charged to the Roads / Highways Department)

Management arrangement (carriageways/footways)

Please select the most appropriate one of the four options to indicate the type of management arrangement in place at your authority.

If the authority uses a wholly external client/designer and contractor you should answer Y (Yes) to option four whether this involves a single external organization or more than one.

Management arrangement (bridges/structures)

Please select the most appropriate one of the five options to indicate the type of management arrangement in place at your authority.

If the authority uses a wholly external client/designer and contractor you should answer Y (Yes) to option four whether this involves a single external organization or more than one.

Agencies

Answer “Y” (Yes) if the authority is an agency contracted by a highways authority (e.g. a District Council working for County Council).

The inclusion of information in the APSE roads asset management exercise largely depends upon the relationship between the local authorities. If the submission is from an agency then the lengths of highways maintained should be included in the km of road network and the agency payment received should be shown in the net charge.

Fabric maintenance' refers to actual pothole repairs, temporary or permanent replacement of surfaces, kerbs and footways rather than just acting as an agent for weed spraying, verge maintenance, litter clearance and other 'non fabric' contracted responsibilities.

Condition surveys

Please note: an authority can appear in more than one type and will therefore appear in more than one PI report. Results will be reviewed at the working group in September to decide on which reports to produce/possible amalgamation across family groups.

Kilometres of road network maintained (principal and non-principal roads)

Principal roads (not including trunk roads and motorways) within the authority and that the authority maintains. For Wales, please use categories from TP1; principal roads relate to 'A' roads. For Scotland principal roads relate to 'A' road as per SRMCS.

Non-principal roads within the authority and that the authority maintains. If you are able to, please enter this separately for classified and unclassified non-principal roads. If you are unable to separate these figures, please enter the total km of non-principal roads maintained by overwriting the subtotal calculation (TKNPR).

Note: do not include any length of roads maintained outside the Authority boundary (e.g. on behalf of another Authority). If part is directly maintained, part is maintained by District Councils, then include both direct and indirect km as long as you are including the cost of the agency service (e.g. payments to District Council for work done plus any other overhead cost) then you should include the statistical data. If including dual carriageway, the length of each individual carriageway should be included.

The lengths should be as defined on form TP1 (A) submitted to The National Assembly for Wales

Total Km of B and C class carriageways (classified, non-principal roads) maintained

If you are unable to separate total Km maintained for Class B and C non-principal roads you may overwrite the subtotal calculation (TKNPRBC) with the total of all non principal roads maintained.

If you do over-write this total then you should leave the individual input cells for B and C classified roads as zero. This will also affect how you show the percentage of non principal roads where maintenance work should be considered later in the template.

Total Kilometres of non-principal roads maintained

If you are unable to separate total Km maintained for classified and unclassified non-principal roads you may overwrite the subtotal calculation (TKNPR) with the total of all non principal roads maintained.

If you do over-write this total then you should leave the individual input cells for classified and unclassified non principal roads as zero. This will also affect how you show the percentage of non principal roads where maintenance work should be considered later in the template.

Condition of A class (principal) roads

Due to the difference in the way that authorities in Scotland are required to report the percentage of roads where structural maintenance should be considered, compared to England & Wales you should only fill in the section of the data collection template that is applicable to your authority. For authorities in Scotland, show percentages using the 'Amber' and 'Red' thresholds. Authorities in England & Wales should show percentages using the 'Red' thresholds only.

Negative residual life (“Deflectograph only”)

Deflectograph Survey Results Guidance: The percentage of the network with negative residual life, derived from Deflectograph surveys of nominally 100% of the network (concrete pavements are the only exception).

Structural maintenance (TRACS type survey)

Scotland Authorities should not enter any data here but complete the sections referring to SRMCS instead. This applies to both principal and non-principal roads.

The figure is derived from scanner surveys (formerly known as TTS survey). The following provisions apply for the programming and reporting of TTS surveys:

The data must be derived from surveys carried out during financial year being reported upon
All road surface types are included
'Deemed coverage' will not be permitted

TTS surveys should be carried out in the nearside lane on all principal roads including single carriageways, dual carriageways and slip roads, roundabouts that have been referenced as separate sections are, however, excluded from the survey, since it is difficult to achieve consistency of survey on such sections.

Local Authorities should insist that Survey Contractors fully comply with the requirements of the TTS Quality Assurance and auditing procedures that form part of the TTS Specification:
http://www.ukpms.com/owner_forum/shared_files/tts_advice_note_and_specification_v1.pdf

Only data collected using Survey Equipment possessing a valid TTS Acceptance Certificate, which explicitly states that the survey vehicle has been approved for use in the production of Best Value Performance Indicators, may be used in the calculation of BV96.

Scanner survey facilities have been available to local authorities since 2004/05. The full Scanner specification (essential guidance to survey contractors) has been published on the UKPMS website, and a quality assurance procedure for survey machines is now in place.

Maintenance treatment (SRMCS) - all carriageways

Road definition in Scotland

A = principal road

B/C = non-principal road (classified)

U = unclassified

Local authority road network condition - the Scottish road maintenance condition survey

The Scottish road maintenance condition Survey, which is organized by the Society of Chief Officers of Transportation in Scotland (SCOTS) on behalf of Local Authorities, is carried out by specialist contractors using vehicles equipped with lasers and high resolution cameras, which collect data for processing by computer. The vehicles currently record:

The road geometry (gradient and shape)

Variations in the longitudinal profile (evenness of ride along the road)

Transverse profile variance (deformation across the road)

Wheel track rutting / deformation in the wheel path

The presence of cracking within the carriageway

Texture (roughness of the surface of the road)

The extent of edge deterioration (due to over-riding or lack of lateral support)

At present, the performance indicator is based only on the results from the longitudinal profile, rutting and surface texture, although it is intended to include other parameters in future through the adoption of a standard Road Condition Indicator (RCI) throughout the UK. When the results are summarized, each ten metre stretch of road is assigned to one of three categories ("green", "amber" and "red"), depending on whether one of the "threshold" limits has been breached. Each stretch of road is counted only once, on the basis of the poorest rating.

The survey currently aims to cover all local authority A roads each year, all B and C roads every two years, and unclassified roads every four years. Therefore, there may be some year-to-year variation in the results for B, C and unclassified roads due to sampling issues. In addition, while the machines used have been calibrated and shown to provide consistent results, variations can occur due to minor differences in machine settings or in the path followed by the survey vehicle (which may well be dictated by, for example, the presence of other vehicles on particular parts of the road).

Maintenance treatment (SRMCS) - A class carriageways

Road definition in Scotland

A = principal road

B / C = non-principal road (classified)

U = unclassified

Local authority road network condition - the Scottish road maintenance condition survey

The Scottish road maintenance condition Survey, which is organized by the Society of Chief Officers of Transportation in Scotland (SCOTS) on behalf of Local Authorities, is carried out by specialist contractors using vehicles equipped with lasers and high resolution cameras, which collect data for processing by computer. The vehicles currently record:

The road geometry (gradient and shape)
Variations in the longitudinal profile (evenness of ride along the road)
Transverse profile variance (deformation across the road)
Wheel track rutting / deformation in the wheel path
The presence of cracking within the carriageway
Texture (roughness of the surface of the road)
The extent of edge deterioration (due to over-riding or lack of lateral support)

At present, the performance indicator is based only on the results from the longitudinal profile, rutting and surface texture, although it is intended to include other parameters in future through the adoption of a standard Road Condition Indicator (RCI) throughout the UK. When the results are summarized, each ten metre stretch of road is assigned to one of three categories ("green", "amber" and "red"), depending on whether one of the "threshold" limits has been breached. Each stretch of road is counted only once, on the basis of the poorest rating.

Maintenance treatment (SRMCS) - B/C class carriageways

Enter the percentage of local authority non-principal classified and unclassified roads where maintenance should be considered. Enter this separately for classified and unclassified non-principal roads.

In accordance with normal procedures in Scotland you should report the percentage of the road network length that is equal to or above the 'Amber' threshold.

Road definition in Scotland

A = principal road
B / C = non-principal road (classified)
U = unclassified

Local authority road network condition - the Scottish road maintenance condition survey

The Scottish road maintenance condition Survey, which is organized by the Society of Chief Officers of Transportation in Scotland (SCOTS) on behalf of Local Authorities, is carried out by specialist contractors using vehicles equipped with lasers and high resolution cameras, which collect data for processing by computer. The vehicles currently record:

The road geometry (gradient and shape)
Variations in the longitudinal profile (evenness of ride along the road)
Transverse profile variance (deformation across the road)

Wheel track rutting / deformation in the wheel path
The presence of cracking within the carriageway
Texture (roughness of the surface of the road)
The extent of edge deterioration (due to over-riding or lack of lateral support)

At present, the performance indicator is based only on the results from the longitudinal profile, rutting and surface texture, although it is intended to include other parameters in future through the adoption of a standard Road Condition Indicator (RCI) throughout the UK. When the results are summarised, each ten metre stretch of road is assigned to one of three categories ("green", "amber" and "red"), depending on whether one of the "threshold" limits has been breached. Each stretch of road is counted only once, on the basis of the poorest rating.

The survey currently aims to cover all local authority A roads each year, all B and C roads every two years, and unclassified roads every four years. Therefore, there may be some year-to-year variation in the results for B, C and unclassified roads due to sampling issues. In addition, while the machines used have been calibrated and shown to provide consistent results, variations can occur due to minor differences in machine settings or in the path followed by the survey vehicle (which may well be dictated by, for example, the presence of other vehicles on particular parts of the road).

Condition of B, C and U class (non-principal) roads

For non-principal roads, you can either enter data separately for classified and unclassified roads or if you are unable to separate this, enter the total by over-writing the unprotected calculation cell.

Structural maintenance for classified and unclassified roads separately (England & Wales)

Enter the percentage of local authority non-principal classified and unclassified roads where maintenance should be considered. Enter this separately for classified and unclassified non-principal roads. If you measure both classified and unclassified roads through TRACS Type Survey, please use guidance as per the former BVPI 224a below.

Scotland authorities should not enter any data here but complete the sections referring to SRMCS instead. This applies to both principal and non-principal roads. Guidance is also provided below if you use CVI or DVI to measure unclassified roads, as per the former BVPI 224b guidance.

TRACS type survey - (formerly BVPI 224a)

The outturn for the indicator is derived from SCANNER (Surface Condition Assessment for the National Network of Roads) surveys.

The following provisions apply for the programming and reporting of SCANNER surveys:

A sample of at least 10% of C roads will be surveyed each year in one direction

The data must be derived from surveys carried out during the financial year being reported upon

All road surface types are included

Deemed coverage ' will not be permitted

Authorities must refer to DfT guidance for detailed explanation of the above points

The requirements for each of the data items, including accuracy and coverage requirements, as well as methods for their acceptance, are given in the SCANNER Specification which is published by the Roads Board and is available from the DfT and UKPMS websites.

Local Authorities should insist that Survey Contractors fully comply with the requirements of the SCANNER Quality Assurance and auditing procedures that form part of the SCANNER Specification.

CVI or DVI - (formerly BVPI 224b)

Based on a visual survey of a proportion of the unclassified road network (minimum 25% per year) using either a UKPMS Coarse Visual Inspection Survey (CVI) or a more detailed equivalent visual inspection survey (DVI).

Visual surveys must be carried out in accordance with the UKPMS Visual Survey Manual, Version 1.0. Detailed Visual Inspection (DVI) surveys may also be used, if carried out in accordance with version RP3.02 of the UKPMS Rules and Parameters.

Concrete or part-covered roads should be included in the visual survey.

Where CVI and DVI results are combined, CVI data must not be mixed with unconverted DVI data. If DVI surveys are to be used as the basis for the survey, they should be converted to a 'CVI-equivalent ' survey using Version 2.0 or later of the UKPMS HMDIF Conversion Software, and processed as a CVI survey. The HMDIF Conversion Software is available from the UKPMS Project Support Team.

In accordance with normal procedures in England and Wales you should report the percentage of the road network length that is equal to or above the 'Red' threshold.

Structural maintenance for classified and unclassified roads (unable to separate) (England & Wales)

If you are unable to separate classified and unclassified non principal roads in terms of Km maintained (input cells TKNPRC and TKNPRU above) or the percentage of each type of road where maintenance should be considered (NPNRLC and NPNRLU above) but you do have information for non principal roads in total then you may over-write the calculation in this cell with the overall percentage applying the same criteria as above for classified and unclassified).

You should not need to do this unless both NPNRLC and NPNRLU are unavailable.

In accordance with normal procedures in England and Wales you should report the percentage of the road network length that is equal to or above the 'Red' threshold.

Structural maintenance for classified and unclassified roads (unable to separate) (SRCMS - Scotland only)

If you are unable to separate classified and unclassified non principal roads in terms of Km maintained (input cells TKNPRC and TKNPRU above) or the percentage of each type of road where maintenance should be considered (NPNRLCS and NPNRLUS above) but you do have information for non principal roads in total then you may over-write the calculation in this cell with the overall percentage applying the same criteria as above for classified and unclassified).

You should not need to do this unless both NPNRLCS and NPNRLUS are unavailable.

In accordance with normal procedures in Scotland you should report the percentage of the road network length that is equal to or above the 'Amber' threshold.

Carriageway treatment (general)

Where a treatment is carried out in two stages over two years (e.g. permanent patching followed by surface dressing), the treatment length should be entered against the second year (**only**).

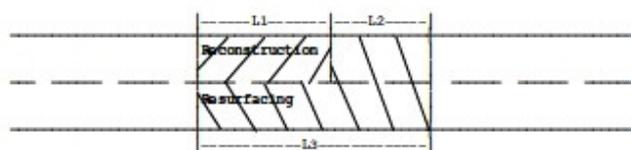
The following applies to both single and dual carriageways –

- (i) If only one direction is treated, route length = ½ treatment length.
- (ii) If both directions are treated, route length = treatment length.

Note. If the treatment length varies between lanes and/or the lanes have different treatments the route length shall be obtained in the manner shown below:

Single Carriageway,

Both lanes, different treatments and treatment length



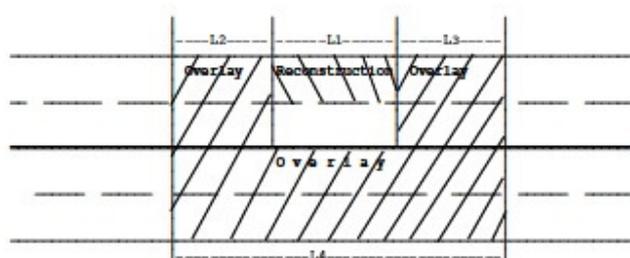
Route length for Reconstruction = $L1/2$

Route length for Reconstruction = $(L2+L3)/2$

NB Small areas of reconstruction in preparation for resurfacing should not be separately identified but included within main treatment.

Dual Carriageway,

Both carriageways, different treatments and treatment lengths.



Route length for Reconstruction = $L1/4$

Route length for Overlay = $(L2 + L3 + L4)/4$

Total km of carriageway treated during year (planned work)

Enter the total length of all planned resurfacing works including surface dressing, surfacing, resurfacing, micro surfacing, inlays and overlays.

For Scotland, enter the figure from Task 27, "Financial Reporting Tool" for planned work.

Note: Where a treatment is carried out in 2 stages over 2 years (e.g. permanent patching followed by surface dressing), the treatment length should be entered against the second year only.

If including dual carriageway, the length of each individual carriageway should be included.

Class A carriageway (principal road) network surveys.

The survey refers to UK PMS CVI surveys. Enter Y (Yes) to ONE of the six options as is most appropriate.

In Scotland it would be anticipated that this would be "At least 50% surveyed annually" in view of the contract for all Class A roads to be scanned one way annually.

Category one defects

Enter the number of category one defects identified/reported during the year (2012/13). Also enter the number of category one defects identified/reported during the previous year 2011/12.

"Defects that require prompt attention because they represent an immediate or imminent hazard or there is a risk of short-term structural deterioration. If it is not possible to correct or make safe the defect at the time of inspection, which will generally be the case, repairs of a temporary nature should be carried out as soon as possible, and in any case within a period of 24 hours."

A definition of what should/shouldn't be included is shown below:

Include

Dangerous pothole (defect)
Missing/damaged ironwork (defect)
Subsidence/slippage (defect)
Safety fence/barrier damage (defect)
Excessive standing water (hazard)

Exclude

Ice (hazard)

This information is reported separately for carriageways and footways.

If you only have information relating to Category One defects for carriageways and footways combined and cannot separate this then you should include the total figures in the carriageways asset return. You should leave the data cells in the footways asset return as zero and flag the data as 'C' (included with Carriageways). As a result, it will not be possible to report performance indicators for each asset.

Back to carriageways

Back to footways

Back to 'Roads Summary'

Number of third party claims settled

Note: This should only include claims that have been settled in that year, irrespective of when they occurred.

Include all claims that relate to the public highway excluding winter maintenance related claims.

This information is reported separately for carriageways and footways.

Back to carriageways

Back to footways

Number of customer enquiries / requests for service received

Include the number of enquiries or requests for service which relate to the service provided.

Exclude all enquiries or requests for service which relate to the street lighting service and the winter service.

Enquiry or Request for Service

The enquiry/request for service is considered to be closed off when the enquiry/request for service has been answered.

Report of a Defect

The report of a defect is considered to be closed off when the defect has been repaired or a reason has been given why no action has been taken or where the report of defect has been forwarded to another Authority/body.

Number of enquiries / requests for service closed off within identified target times

Enter the number of enquiries, requests for service, or defects that have been closed off or repaired within the identified response time of your Council.

Total number of enquiries received under the Freedom of Information Act

Include all enquiries/complaints received under the Freedom of Information Act, relating to all aspects of the service provided by the Roads Service.

Under the terms of this act, persons have a right to request information held by the authority. Any person or organization who requests information, subject to certain conditions, under the terms of this Act is entitled to receive the information within 20 working days.

Number of FOI enquiries dealt with within allowable time

Enter the number of FOI enquiries that were dealt with within the time (days) allowable under this Act.

Under the terms of this Act, persons have a right to request information held by the authority. Any person or organization who requests information, subject to certain conditions, under the terms of this Act is entitled to receive the information within 20 working days. The ideal target figure for this measure is 100%.

Total number of enquiries relating to abnormal loads

Enter the total number of requests for abnormal indivisible loads made.

"Abnormal indivisible load" is defined in the Road Vehicles (Authorisation of Special Types) (General) Order 2003 as:

- a. a load that cannot without undue expense or risk of damage be divided into two or more loads for the purpose of being carried on a road, and that:
- b. owing to its dimensions, cannot be carried on a motor vehicle (N3 motor vehicle) or trailer (O4 vehicle) or a combination of such vehicles that complies in all respects with Part 2 of the Construction and Use Regulations; or
- c. On account of its weight, cannot be carried on a heavy motor vehicle at category N3 or a trailer at category O4 or a combination of such vehicles that complies in all respects with:
 - i) The Authorized Weight Regulations (or, if those Regulations do not apply, the equivalent provisions in Part 4 of the Construction and Use Regulations); and
 - ii) Part 2 of the Construction and Use Regulations.

Notifications for Abnormal Indivisible Loads are required where loads or vehicles exceed maximum vehicle weight, axle weight or dimension limits in any of the following ways:

Weight:

Gross weight or axle weights exceeding Construction and Use Regulation or Authorized Weight limits up to 80,000kgs (78.74 tons)

Gross weight (of vehicle carrying the load) exceeding 80,000 kg (78.74 tons) up to 150,000kgs (147.63 tons)

Gross weight (of vehicle carrying the load) exceeding 150,000kgs (147.63tons).

Width:

Width exceeding 3.0 metres (9'6") up to 5.0 metres (16'5")

Action required: 2 clear days notice to the police.

Width exceeding 5.0 metres (16'5") up to 6.1metres (20')

Width exceeding 6.1 metres (20')

Length:

When exceeding 18.75 metres (60'1") up to 30 metres (98'5") rigid- (Vehicle or train of vehicles)
Action required 2 clear days notice to the police.

When exceeding 30 metres (98'5") rigid
Action required **Highways Agency Special Order** (8 weeks notice) to Police and 5 clear days notice with indemnity to Road and Bridge Authorities.

Number of enquiries relating to abnormal loads dealt with within identified response time

Enter the total number of requests for abnormal indivisible loads actioned within the identified response time as specified below. (Authorized Weight Regulations and the Construction and use Regulations)

FTE number of safety inspectors

Enter your best estimate of the full time equivalent number of inspectors deployed on carriageways and footways for the year.

This figure will be used in conjunction with the Km of planned and actual safety inspections (carriageways and footways) to calculate average Km of safety inspections planned/undertaken per inspector per annum.

Do **not** include service inspections or reactive inspections.

Training Placements

Training placements are defined as trainees, which are placed with your organization by a sponsoring body.

Include information relating to training for all employees. i.e. service provider/contractor (e.g. DSO) and service purchaser/commissioning organization (e.g. Client Unit).

Percentage absence (excluding Scotland) – all employees

Enter the percentage absence for all employees. Show this figure as the days or hours lost as a result of sickness, as a percentage of the total days or hours deployed (including holiday, etc) annually.

Include:

All long term, certified and self-certified sickness absence and absence for other health related or injury reasons, for all permanent employees

All industrial injuries service provider/contractor (e.g. DSO) and service purchaser/commissioning organization (e.g. Client Unit) employees.

Exclude:

Maternity/paternity leave or special care leave.

Temporary or agency employees. Employees on fixed term contracts who have been employed by the authority for over a year should be considered permanent.

Unpaid sickness absence as a result of termination of entitlement to pay should be included in the calculation of total sickness absence. Whether or not an employee is entitled to payment for sickness absence is irrelevant to the question of whether they are an employee and whether they are not at work because of ill health.

Staff absence – all employees (Scotland only)

"Sickness absence" is defined as an absence from the place of employment because of the employee's illness or injury for which sick leave entitlement is used. This may include self certification, absence supported by a doctor's certificate, long-term sickness absence, and industrial injury. Care needs to be taken not to include authorized absence which is not sickness absence, for example, compassionate leave, career leave and special leave/unpaid leave, maternity and paternity leave, and maternity support.

Care should be taken not to include:

Authorized absence which is not sickness absence, for example, compassionate leave, career leave and special leave/unpaid leave, maternity and paternity leave, and maternity support.

For each calculation the numerator is the total number of shifts/working days lost due to sickness absence, including industrial injury, irrespective of whether this is self-certified, certified by a GP or long-term. For part-time staff, services should calculate the FTE for both the numerator and denominator on a consistent basis. For example, where the standard working week for full time employees is 36.25 hours, someone working a 15 hr week counts as 41% FTE

Include all permanent employees within the Roads/Highways Department including management, administration, supervisory and operational employees, but exclude agency staff and staff on maternity or paternity leave. Temporary staff and staff on fixed term contracts who have been employed for over a year should be considered permanent.

The denominator is the average number of FTEs employed during the financial year. Working days/shifts, means days/shifts scheduled for work after holidays/leave days have been excluded.

In the instance of an employee reporting sick part way through a working day/shift, authorities should record the information to the nearest half-day/shift.

Include days lost through sickness due to disability or long term sickness even if the staff are not paid. Only days which form part of an employee's normal working week should be counted for sick leave.

Example

Total number of days lost per year through sickness absence = 700

Total number of FTE employees = 500

Days lost per employee is $700 / 500 = 1.4$

Source

Service statistical returns and human resources records

Source: Audit Scotland Statutory Performance Indicators; Direction and Guide 2011

Financial data guidance notes

Total capital and revenue expenditure

Do not include any expenditure which is not associated with the roads maintenance function definition. You can check this definition by clicking on the 'See note' link against 'Service Areas' heading in the 'Profile' input sheet.

Include expenditure carried out under any agency agreement with a Highways Authority.

Back to carriageways

Back to footways

Back to bridges/structures

Client payments to in house DLO / STO only (carriageways work)

Enter the actual direct, net expenditure figure spent with the DLO / STO for the year on carriageways work.

Include:

All capital schemes irrespective of their nature (e.g. all grants, capital element of PFI, ERDF, SRB, developer capital).

Exclude:

Street lighting. If your expenditure includes payments to contractors for street lighting works, apportion the amount applicable to roads only.

Payments relating to Street Furniture

Winter Maintenance

Asset rentals, debt charges and other capital charges

Footway expenditure
Bridges and structures expenditure
Traffic management systems expenditure

Client payments to external contractors only (carriageways work)

Enter the actual direct, net expenditure figure spent with any external contractors only for the year on carriageways work.

Include:

All capital schemes irrespective of their nature (e.g. all grants, capital element of PFI, ERDF, SRB, developer capital).

Exclude:

Street lighting. If your expenditure includes payments to contractors for street lighting works, apportion the amount applicable to roads only.

Payments relating to Street Furniture

Winter Maintenance.

Asset rentals, debt charges and other capital charges

Footway expenditure

Bridges and structures expenditure

Traffic management systems expenditure

Client staff costs (carriageways work)

Enter the actual (or a calculated apportionment for) total client staff costs relating to carriageway works including all management, administration, inspection, supervisory, technical staff.

This should include any temporary, agency, casual or trainee staff costs. Should include employer on costs (NI, superannuation/pension).

These cost breakdowns should be entered separately for carriageway, footway and bridges/structure works based on recorded client worksheets or a best estimate of each client officers time allocated to those assets.

Exclude sub contractor staff costs.

Exclude winter maintenance staff costs.

Client travel and vehicles (carriageways work)

Enter the actual (or a calculated apportionment for) total client travel and vehicle costs relating to carriageway works. This would include vehicles used by the client management, inspectors, etc but not vehicles or plant operated by the DLO/contractors.

Include client staff travel/mileage allowances

These costs may be arrived at by calculating the percentage of 'Client staff costs' (above) applicable to each asset type and then applying that percentage to the total annual spend to all client overheads and support costs.

Client property costs (carriageways work)

Enter the actual (or a calculated apportionment for) total property costs relating to carriageway works. This would include buildings used by the client management, technical and administration staff etc but not buildings or depots used exclusively by the DLO/contractors. If there is shared use then make an apportionment between the client and DLO.

These costs may be arrived at by calculating the percentage of 'Client staff costs' (above) applicable to each asset type and then applying that percentage to the total annual spend to all client overheads and support costs.

Client supplies and services (carriageways work)

Enter the actual (or a calculated apportionment for) total client supplies and services costs relating to carriageway works.

These costs may be arrived at by calculating the percentage of 'Client staff costs' (above) applicable to each asset type and then applying that percentage to the total annual spend to all client overheads and support costs.

All other client departmental administration / overheads but excluding CEC (carriageways work)

Enter all other direct expenditure not included in the itemized breakdown above.

Include all allowances, office expenditure, direct overheads, communications equipment, etc.

Do not include winter maintenance costs. Where necessary, apportion overhead and other direct costs between roads and winter maintenance / street lighting. Then allocate the appropriate proportion for carriageway work.

Exclude central establishment charges.

Exclude asset rentals, debt charges and other capital charges.

Central establishment charges (CEC) made to client (carriageways work)

Show all annual/end of year re-charges relating to carriageways work made by central departments to the client. All Local Authorities should ensure that the allocation of Central Establishment Charges (CECs) is in accordance with the CIPFA code of practice on Local Authority Accounting.

If CECs are charged for the roads function as a whole and not split between DLO and client then a fair and reasonable apportionment between the DLO and client should be made. The client element of CECs should then be apportioned between carriageway, footway and bridges/structure works.

If these costs are not included then you will NOT receive any Performance Indicator reports that include Central Establishment Charges (CECs). Do not include any charges, which have already been shown under 'Departmental Administration'.

Exclude CECs associated with the winter maintenance operation, street lighting.
Exclude CECs charged directly to the DLO

Grants (carriageways work)

Identify any additional government or European grants awarded for use for carriageway work within the financial year, which have been included in the above expenditure. These include local transport plan payments from the Government.

Non contract / discountable income (own authority/external work relating to carriageways)

Include any income which is generated from outside the core roads department function such as private roads maintenance, non standard services, commercial or retail area maintenance where the corresponding expenditure has been attributed to carriageway work.

Include licensing for scaffolding, skips, etc. Café and shop licenses, A frames, etc

If income relates to expenditure on carriageways and footways then apportion the income as appropriate.

Include income from government agencies for maintenance of roads not owned by the local authority.

Actual cost of planned maintenance work (carriageways)

Planned maintenance work is considered to be that which provides for a sustainable outcome, adding value to the carriageway asset network, and includes:-

surface dressing
thin/micro surfacing
thin, moderate and thick overlay
thin, moderate, structural inlay
reconstruction

Enter the total cost of planned maintenance operations pertaining to the carriageway asset, including all of the above.

Actual cost of reactive maintenance work (carriageways)

Reactive maintenance is considered to be all safety related work associated with the **carriageway** asset and includes:-

all emergency safety related work including pothole repairs
kerb repairs
repairs to defective ironwork
and any other temporary or permanent repairs carried out on an unplanned basis on the grounds of safety Includes defects notified via 3rd party public liability claims.

Enter the total cost of reactive maintenance operations pertaining to the carriageway asset, including all of the above.

Actual cost of routine maintenance work (carriageways)

Routine maintenance work priorities and programmes are determined largely, but not exclusively from Cat 2 defects identified during service inspections, together with items from safety inspections not requiring urgent attention. Routine maintenance works include:-

planned patching
gully cleaning
weed spraying
verge maintenance
cyclic maintenance.

Enter the total cost of routine maintenance operations pertaining to the carriageway asset, including all of the above.

Steady state figure from SCOTS Financial Model

The SCOTS Roads Financial Model has determined the budget for each authority required to maintain the RCI at its steady state for 10 years.

The report defines steady state as the reporting of the same RCI percentage in each subsequent year, thereby there is no deterioration or improvement in the reported overall condition of an authority's road network.

The budget required to maintain steady state can be compared with the authority's budget allocation.

Steady state figure from SCOTS Financial Model

The Headline Backlog (the figure to clear all of the red and amber defects reported via the RCI) as identified in the SCOTS Roads Financial Model. Enter the sum for your authority, as identified in the model.

Client payments to DLO / STO only (footways work)

Enter the actual direct, net expenditure figure spent with the DLO / STO only for the year on footways work.

Include:

All capital schemes irrespective of their nature (e.g. all grants, capital element of PFI, ERDF, SRB, developer capital).

Exclude:

Street lighting. If your expenditure includes payments to contractors for street lighting works, apportion the amount applicable to roads only.

Payments relating to Street Furniture.

Winter Maintenance.

Asset rentals, debt charges and other capital charges.

Client payments to external contractors only (footways work)

Enter the actual direct, net expenditure figure spent with any external contractors for the year on footways work.

Include:

All capital schemes irrespective of their nature (e.g. all grants, capital element of PFI, ERDF, SRB, developer capital).

Exclude:

Street lighting. If your expenditure includes payments to contractors for street lighting works, apportion the amount applicable to roads only.

Payments relating to Street Furniture.

Winter Maintenance.

Asset rentals, debt charges and other capital charges.

Client staff costs (footways work)

Enter the actual (or a calculated apportionment for) total client staff costs relating to footway works including all management, administration, inspection, supervisory, technical staff. This should include any temporary, agency, casual or trainee staff costs. Should include employer on costs (NI, superannuation/pension).

These cost breakdowns should be entered separately for carriageway, footway and bridges/structure works based on recorded client worksheets or a best estimate of each client officers time allocated to those assets.

Exclude sub contractor staff costs.

Exclude winter maintenance staff costs.

Client travel and vehicles (footways work)

Enter the actual (or a calculated apportionment for) total client travel and vehicle costs relating to footway works. This would include vehicles used by the client management, inspectors, etc but not vehicles or plant operated by the DLO/contractors.

Include client staff travel/mileage allowances

These costs may be arrived at by calculating the percentage of 'Client staff costs' (above) applicable to each asset type and then applying that percentage to the total annual spend to all client overheads and support costs.

Client property costs (footways work)

Enter the actual (or a calculated apportionment for) total property costs relating to footway works. This would include buildings used by the client management, technical and administration staff etc but not buildings or depots used exclusively by the DLO/contractors. If there is shared use then make an apportionment between the client and DLO.

These costs may be arrived at by calculating the percentage of 'Client staff costs' (above) applicable to each asset type and then applying that percentage to the total annual spend to all client overheads and support costs.

Client supplies and services footways work)

Enter the actual (or a calculated apportionment for) total client supplies and services costs relating to footway works.

These costs may be arrived at by calculating the percentage of 'Client staff costs' (above) applicable to each asset type and then applying that percentage to the total annual spend to all client overheads and support costs.

All other client departmental administration / overheads but excluding CEC (footways work)

Enter all other direct expenditure not included in the itemised breakdown above.

Include all allowances, office expenditure, direct overheads, communications equipment, etc.

Do not include winter maintenance costs. Where necessary, apportion overhead and other direct costs between roads and winter maintenance / street lighting. Then allocate the appropriate proportion for footway work.

Exclude central establishment charges.

Exclude asset rentals, debt charges and other capital charges.

Central establishment charges (CEC) made to client (footways work)

Show all annual/end of year re-charges relating to footways work made by central departments to the client. All Local Authorities should ensure that the allocation of Central Establishment Charges (CECs) is in accordance with the CIPFA code of practice on Local Authority Accounting.

If CECs are charged for the roads function as a whole and not split between DLO and client then a fair and reasonable apportionment between the DLO and client should be made. The client element of CECs should then be apportioned between carriageway, footway and bridges/structure works.

If these costs are not included then you will NOT receive any Performance Indicator reports that include Central Establishment Charges (CECs). Do not include any charges, which have already been shown under 'Departmental Administration'.

Exclude CECs associated with the winter maintenance operation, street lighting.

Exclude CECs charged directly to the DLO

Grants (footways work)

Identify any additional government or European grants awarded for use for footway work within the financial year, which have been included in the above expenditure. These include local transport plan payments from the Government.

Non contract / discountable income (own authority/external work relating to footways)

Include any income which is generated from outside the core roads department function such as private roads maintenance, non standard services, commercial or retail area maintenance where the corresponding expenditure has been attributed to footway work.

Include licensing for scaffolding, skips, etc. Café and shop licences, A frames, etc. If income relates to expenditure on carriageways and footways then apportion the income as appropriate. Include income from government agencies for maintenance of footways not owned by the local authority.

Actual cost of planned maintenance work (footways)

Planned maintenance work is considered to be that which provides for a sustainable outcome, adding value to the footway asset network, and includes:-

- reconstruction
- resurfacing
- surface treatments

Enter the total cost of planned maintenance operations pertaining to the footway asset, including all of the above.

Actual cost of reactive maintenance work (footways)

Reactive maintenance is considered to be all safety related work associated with the **footway** asset and includes:

- All emergency safety related work including pothole repairs
- kerb repairs
- slab repairs
- repairs to defective ironwork and any other temporary or permanent repairs carried out on an unplanned basis on the grounds of safety

Enter the total cost of reactive maintenance operations pertaining to the footway asset, including all of the above.

Actual cost of routine maintenance work (footways)

Routine maintenance work priorities and programmes are determined largely but not exclusively from Cat 2 defects identified during service inspections, together with items from safety inspections not requiring urgent attention. Routine maintenance works include:-

gully cleaning
weed spraying
verge maintenance
cyclic maintenance

Enter the total cost of routine maintenance operations pertaining to the footway asset, including all of the above.

Client payments to DLO / STO only (bridges/structures)

Enter the actual direct, net expenditure figure spent with the DLO / STO only for the year on bridges/structures work.

Include:

All capital schemes irrespective of their nature (e.g. all grants, capital element of PFI, ERDF, SRB, developer capital).

Exclude:

Carriageways/footways work.

Street lighting. If your expenditure includes payments to contractors for street lighting works, apportion the amount applicable to roads only.

Winter Maintenance.

Asset rentals, debt charges and other capital charges.

Client payments to external contractors only (bridges/structures)

Enter the actual direct, net expenditure figure spent with any external contractors only for the year on bridges/structures work.

Include:

All capital schemes irrespective of their nature (e.g. all grants, capital element of PFI, ERDF, SRB, developer capital).

Exclude:

Carriageways/footways work.

Street lighting. If your expenditure includes payments to contractors for street lighting works, apportion the amount applicable to roads only.

Winter Maintenance.

Asset rentals, debt charges and other capital charges.

Client staff costs (bridges/structures)

Enter the actual (or a calculated apportionment for) total client staff costs relating to footway works including all management, administration, inspection, supervisory, technical staff. This should include any temporary, agency, casual or trainee staff costs. Should include employer on costs (NI, superannuation/pension).

These cost breakdowns should be entered separately for carriageway, footway and bridges/structure works based on recorded client worksheets or a best estimate of each client officers time allocated to those assets.

Exclude sub contractor staff costs.

Exclude winter maintenance staff costs.

Client travel and vehicles (bridges/structures)

Enter the actual (or a calculated apportionment for) total client travel and vehicle costs relating to footway works. This would include vehicles used by the client management, inspectors, etc but not vehicles or plant operated by the DLO/contractors.

Include client staff travel/mileage allowances

These costs may be arrived at by calculating the percentage of 'Client staff costs' (above) applicable to each asset type and then applying that percentage to the total annual spend to all client overheads and support costs.

Client property costs (bridges/structures)

Enter the actual (or a calculated apportionment for) total property costs relating to footway works. This would include buildings used by the client management, technical and administration staff etc but not buildings or depots used exclusively by the DLO/contractors. If there is shared use then make an apportionment between the client and DLO.

These costs may be arrived at by calculating the percentage of 'Client staff costs' (above) applicable to each asset type and then applying that percentage to the total annual spend to all client overheads and support costs.

Client supplies and services (bridges/structures)

Enter the actual (or a calculated apportionment for) total client supplies and services costs relating to bridge/structures works.

These costs may be arrived at by calculating the percentage of 'Client staff costs' (above) applicable to each asset type and then applying that percentage to the total annual spend to all client overheads and support costs.

All other client departmental administration / overheads but excluding CEC (bridges/structures)

Enter all other direct expenditure not included in the itemized breakdown above.

Include all allowances, office expenditure, direct overheads, communications equipment, etc.

Do not include winter maintenance costs. Where necessary, apportion overhead and other direct costs between roads and winter maintenance / street lighting. Then allocate the appropriate proportion for bridge/structures work.

Exclude central establishment charges.

Exclude asset rentals, debt charges and other capital charges.

Central establishment charges (CEC) made to client (bridges / structures)

Show all annual/end of year re-charges relating to footways work made by central departments to the client. All Local Authorities should ensure that the allocation of Central Establishment Charges (CECs) is in accordance with the CIPFA code of practice on Local Authority Accounting.

If CECs are charged for the roads function as a whole and not split between DLO and client then a fair and reasonable apportionment between the DLO and client should be made. The client element of CECs should then be apportioned between carriageway, footway and bridges/structure works.

If these costs are not included then you will NOT receive any Performance Indicator reports that include Central Establishment Charges (CECs). Do not include any charges, which have already been shown under 'Departmental Administration'.

Exclude CECs associated with the winter maintenance operation, street lighting.
Exclude CECs charged directly to the DLO

Grants (bridges/structures)

Identify any additional government or European grants awarded for use for bridges/structures work within the financial year, which have been included in the above expenditure. These include local transport plan payments from the Government.

Non contract / discountable income (own authority/external work relating to bridges/structures)

Include any income which is generated from outside the core roads department function such as private roads maintenance, non standard services, commercial or retail area maintenance where the corresponding expenditure has been attributed to bridges/structures work.

If income relates to expenditure on carriageways, footways and structures then apportion the income as appropriate.

Include income from government agencies for maintenance of bridges/structures not owned by the local authority.

Total bridges and structures maintenance capital and revenue budget allocation

Enter total bridges and structures maintenance (capital and revenue) budget allocation that was planned for spending at the start of the year. If the maintenance budget allocation was increased during the year then show the revised amount.

Total estimated cost of identified maintenance work

Enter total estimated cost of identified maintenance work. This information is contained within your Structures Lifecycle Plan or Structures Works Prioritisation Spreadsheet.

Total structures asset valuation

Enter total structures asset gross replacement value from Whole of Government Accounts financial reporting tool.

Amount of budget spent repairing 3rd party damage

Enter total cost of repairing non-recovered 3rd party damage.

Cost to remove unacceptable restrictions by weight/width/height

Enter total annual cost of works to reduce unacceptable restrictions by weight/width/height.

Financial data - winter maintenance (carriageways / footways)

This information is reported separately for carriageways and footways.

The winter maintenance costs for carriageways and footways are summarized in the 'Financial Summary' tab to show the total annual cost of the winter maintenance operation. If you are unable to separate the financial data between the two asset types then you should leave both sections as zero and input the total figures directly into the 'Financial Summary' tab.

Back to carriageways

Back to footways

Back to 'Financial Summary' tab

Draft reports

If you submit your completed data files by 2nd August 2013, you will receive a draft PI standings report to check your data. Draft reports are produced in the format of summarized PI standings reports showing your initial results for each PI and how you stand against other authorities that have submitted their data by this date.

Draft reports are only supplied for the purpose of self checking to assist you in identifying any missing data, errors or exclusions as a result of report parameters. As a result of these, you should review your submitted data and inform APSE of any updates or amendments as quickly as possible.

Draft reports should not be used for any reporting or management information purposes as they are produced prior to any data validation or error checking of your own data or the data submitted by other comparator authorities and are therefore unreliable for this purpose.

You do not need to select this option. All authorities submitting data by the above date will automatically receive an electronic (MS Excel) version of the draft report for self error checking as part of the data validation process.

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