

## Exhibit K: Asset Life Cycle

Reference No.	Asset Element	Maintenance Element	Design Life (yrs)	Treatment
P-P-01	Flexible Pavement	Asphalt surface	15	Pavement Rehabilitation
P-P-02	Rigid Pavement	Asphalt surface	15	Pavement Rehabilitation
P-P-03	Sealed Shoulders	Sprayed Bitumen Seal	15	Pavement Rehabilitation
P - B-01	Concrete Bridges	Superstructure Substructure	50 50	Repairs as required Repairs as required Repaint
P - B-02	Steel Bridges	Superstructure Substructure	50 50	Repairs as required Repairs as required
P - B-03	Bridge Joints	Expansion Joints	20	Repairs as required
P - B-04	Bridge Bearings	Elastomeric Bearings Metal Bearings	50 50	Routine Maintenance Item Routine Maintenance Item
P - B-05	Bridge Railings	Metal / Concrete Railings	40	Routine Maintenance Item
P - B-06	Scuppers /Deck Drainage System	Bridge Drains	40	Routine Maintenance Item
P - B-07	Underpasses Stock / Fauna/Peds	Walls / Drainage / Ceilings	40	Repaint
P - B-08	Bridge Waterways	Piers/ Abutments	100	Routine Maintenance Item
P - T-01	Longitudinal Marking	Thermoplastic Waterborne	6 4	Renew Renew
P - T-02	Transverse Marking	Thermoplastic Waterborne	4 4	Renew Renew
P T-03	Pavement Symbols	Thermoplastic Waterborne	4 4	Renew Renew
P - T-04	Raised Pavement Markers	Reflective / non-reflective	6	Replace
P T-05	Warning Signs	Curves, intersection, clearances etc.	12	Replace
P - T-06	Regulatory Signs	Stop / speed / crossing etc	12	Replace
P - T-07/8	Major / Minor Guide Signs	Directional / route / feature etc	12	Replace
P T-09	Non-Pavement Delineators	Guide Posts / safety fencing	6	Replace
P - T-10	Guard Barriers	Guardrail/ wire barrier / New Jersey	40	Replace
P - T-11	Safety Fence / Terminals	BCT / EAB's	20	Repair as necessary Replace
P - T-12	Street Lighting	Standard Poles Non standard Poles Luminaries - Type 1 Luminaries - Type 2 Luminaries - Type 3 Lighting over help phone	20 20 4.5 4.5 4.5 2.28	Replace Replace Routine Maintenance Item Routine Maintenance Item Routine Maintenance Item Routine Maintenance Item
P - T-13	Traffic Devices	Traffic Domes / bollards / grab rails	40	Renew/Replace
P - R-01	Retaining Walls	Reinforced concrete / gabion, crib etc.	100	Repair as necessary
P - R-02	Batters	Unprotected / shotcrete / jute etc.	100	Routine Maintenance Item

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P - R-03	Kerb and Gutter	Footpath / median	40	Routine Maintenance Item
P - R-04	Drains, Channels or Swales	Lined / Unlined	40	Routine Maintenance Item
P - R-05	Drainage Pits	Kerb / median / batter / table	40	Routine Maintenance Item
P - R-06	Underground Drainage	Culvert / drainage line / GPT	100	Routine Maintenance Item
P - R-07	Sedimentation Basins	Temporary / Permanent	40	Mechanical Cleaning
P - R-08	Sub-surface Drains		100	Routine Maintenance Item
P - R-09	Noise Barriers	Concrete / Earth / Timber	40	None
P - R10	Boundary Fencing / Gates	Manproof / timber / wire / metal	20	Replace
P - R-11	Median Areas	Paved / grassed / landscaped	40	Routine Maintenance Item
P - R-12	Roadside and Rest Areas	Grassed / Landscaped	40	None
P - R-13	Travel Lanes			
P - M-01	Help Phone (ramps) Help Phone (Open Road)	Phones Phones	25 25	None None
P - M-02	Variable Message Signs	Variable Message Signs Enhanced Message Sign	10	None None
	Closed Circuit TV (open road) Trivision	CCTV Trivision (CMS)	7 15	None None
P - M-04	Incident Detection System	AID Cameras	7	None
P - M-06	Trip Information Sign	Traveller Information Signs	17	None
P - M-07	Not Used			
P - M-08	Moveable Physical Barrier	Portal Barriers	15	None
P - M-09	Ramp Control Sign	Ramp Control Signs	17	None
P - M-10	Not Used			
P - M-11	Emergency Median Gate Open	EMGO	15	None
P - M-12	Lane Use Signs Variable Speed Signs (open-road) Cabinets	Lane Use Signal Variable Speed Signs	17 17 20	None None None
P - M-14	Not Used			
P - C-02	TMCS	PMCS/TMCS Control Room HW & SW		Replace
	Toll Collection Equipment	Technical Shelter Electronics Roadside Equipment Maintenance Major Gantry Equipment	7 15 15	Refurbish Routine Maintenance Refurbish
	General	Miscellaneous Reimbursable Spares Inventory		