

WELL-TRACK data matrix		
Issue #	Issue	City ...
1.0.0	Organisation of transit	
1.1.0	<i>Governance and political</i>	
1.1.1	Political support for transit	
1.1.2	Political influence of pro & anti groups	
1.1.3	Influence of Federal and State political processes	
1.1.4	Method of selecting public-sector boards	
1.2.0	<i>Roles</i>	
1.2.1	Who promotes transit development?	
1.2.2	Who plans transit development?	
1.2.3	Who owns rail etc infrastructure?	
1.2.4	Who operates transit services?	
1.2.5	Who co-ordinates transit planning?	
1.2.6	Role of private sector	
1.2.7	How are public-sector participants constituted?	
1.2.8	How are inter-agency contracts managed?	
1.2.9	Who does audit and QA?	
1.2.10	How is performance managed and corrected?	
1.2.11	Roles of community groups in planning	
1.3.0	<i>Finance</i>	
1.3.1	Sources of capital	
1.3.2	Sources of operating support	
1.3.3	Innovative financing used	
1.3.4	Is there a system for property value capture?	
1.3.5	If so, how does it work?	
1.3.6	Other systems for finance from non-passengers	
1.3.7	Systems for business support, levys etc	
1.3.8	Rate of return targets	
1.3.9	Farebox recovery targets and experience	
1.4.0	<i>Mode choice for investment</i>	
1.4.1	Decision-making process	
1.4.2	Role for LRT	
1.4.3	Role for commuter rail	
1.4.4	Role for streetcar/heritage trolley	
1.4.5	Role for standard bus	
1.4.6	Role for BRT	
1.4.7	Role for other modes	
1.4.8	Influence of ideological/political factors	
1.4.9	Short- and long-term expectations	
1.5.0	<i>Risk management</i>	
1.5.1	Financial risk management	
1.5.2	Policing and security risk management	
1.5.3	Regulatory compliance requirements	
1.5.4	Safety program design	
1.5.5	Safety program delivery	
1.5.6	Auditing and QA	

Issue #	Issue	City ...
2.0.0	Urbanism, smart growth and liveability	
2.0.1	Is rail used to influence development?	
2.0.2	Effect of current rail on land use	
2.0.3	Objectives for future rail development	
2.0.4	Current policies for land use planning	
2.0.5	Financial support for land use + rail integration	
2.0.6	Are there policies for travel demand management?	
2.0.7	What effect have they had?	
2.0.8	Trend for future land use policies	
2.0.9	Incentives vs regulation to encourage sustainability/liveability	
2.0.10	Community support for 'smart growth' policies	
2.0.11	Business support for 'smart growth' policies	
2.0.12	Support for 'liveability' at city/region/state level	
2.0.13	Existing sustainability/liveability features	
2.0.14	Proposed sustainable development	
2.0.15	Community consultation & involvement	
2.0.16	Examples of design for S/L	
2.0.17	Examples of rejection of auto-dependency in urban planning	
3.0.0	Commercial issues and TOD	
3.0.1	Developer financial input to LRT development	
3.0.2	Residential TOD design & experience	
3.0.3	Retail TOD design & experience	
3.0.4	Industrial/commercial TOD design & experience	
3.0.5	Revival of run-down areas through TOD	
4.0.0	Light rail technology and operations	
4.1.0	System characteristics	
4.1.1	General system description & history	
4.1.2	Length of route(s)	
4.1.3	Number of stations	
4.1.4	Maximum space between stations	
4.1.5	Minimum spacing between stations	
4.1.6	% of each route at-grade PROW	
4.1.7	% of each route in-street or mall	
4.1.8	% of each route elevated or subway	
4.1.9	Transit mall characteristics	
4.1.10	Grade crossing design and protection	
4.1.11	Sharing of tracks with freight trains	
4.2.0	Operations	
4.2.1	Design capacity (pgr per day per route)	
4.2.2	Current passenger numbers	
4.2.3	Trends in passenger numbers since opening	
4.2.4	Reasons for changes in pgr numbers	
4.2.5	Average dwell time/stn	
4.2.6	Max speed on PROW	
4.2.7	Max speed in street	
4.2.8	Average speed in street	
4.2.9	Safety record	
4.2.10	Action being taken re safety issues	
4.2.11	Safety system requirements, documentation	
4.2.12	Safety system compliance and auditing	

Issue #	Issue	City ...
4.3.0	<i>Car design</i>	
4.3.1	Body design and external appearance	
4.3.2	Seating capacity	
4.3.3	Seated/standee capacity	
4.3.4	Service speed	
4.3.5	Design top speed	
4.3.6	Noise/vibration characteristics	
4.3.7	MU operation	
4.3.8	Floor height	
4.3.9	Ease of access from platform	
4.3.10	Wheelchair access/ADA compliance	
4.3.11	Internal design features and seating	
4.3.12	In-car passenger info systems	
4.3.13	Security features in car design	
4.3.14	In-car video surveillance	
4.3.15	In-car fare collection/ticket systems	
4.4.0	<i>Economic performance</i>	
4.4.1	General description of financial performance	
4.4.2	Operating costs gross	
4.4.3	Operating costs / car mile	
4.4.4	Operating costs / passenger mile	
4.4.5	Components of operating costs (wages, mtce, power etc)	
4.4.6	LRT costs cf other modes	
4.4.7	LRT productivity cf other modes	
4.4.8	farebox recovery ratio	
4.4.9	Subsidy per passenger mile	
4.4.10	Subsidy cf other modes	
4.4.11	Expectations for long-term trends	
4.4.12	Off-balance-sheet economic effects (e.g. property prices)	
4.4.13	Capital costs - track km	
4.4.14	Capital costs - per car/trainset	
4.4.15	Capital costs - per station	
4.4.16	Staff - driver, on train, mech, ops, admin/marketing, other	
4.4.17	Financial performance - Revenue - fares, grant, other	
4.4.18	Financial performance - Expenditure - operating, other detail	
4.4.19	Outputs - train km	
4.4.20	Outputs - car km	
4.4.21	Outputs - train hours	
4.4.22	Outputs - cars	
4.4.23	Outputs - average seat/spaces per car	
4.4.24	Reasons for large or abnormal quantities in the above	
4.5.0	<i>Bus integration with LRT</i>	
4.5.1	How much are services integrated?	
4.5.2	Timetable integration	
4.5.3	Fare integration	
4.5.4	Co-ordination of different operators	
4.5.5	How convenient are the transfers?	
4.5.6	Proportions of passengers transferring	
4.5.7	Planned action to improve transfers	

Issue #	Issue	City ...
4.6.0	<i>Infrastructure design - street</i>	
4.6.1	Types of rails used	
4.6.2	Types of paving used	
4.6.3	Track design	
4.6.4	Use of insulation (boot, poured, cast-on)	
4.6.5	Track foundations	
4.6.6	Construction methods	
4.6.7	Overhead line construction	
4.6.8	Aesthetic mitigation of overhead line construction	
4.6.9	Amount of services diversion	
4.6.10	Management of construction disruption	
4.6.11	Design of transit malls shared with buses	
4.6.12	Design of transit malls shared with pedestrians only	
4.6.13	Integration of bus and LRT lanes	
4.6.14	Traffic engineering around LRT	
4.6.15	Trackscaping' - lawn track? Cobblestones?	
4.6.16	Traffic signal pre-emption	
4.6.17	Other in-street signalling for LRT	
4.6.18	Design and operation of turnouts	
4.6.19	Transition to PROW track	
4.7.0	<i>Infrastructure design - private ROW</i>	
4.7.1	Track design	
4.7.2	Speed capabilities	
4.7.3	Type and weight of rail used	
4.7.4	Type(s) of ties used	
4.7.5	Welding and buckling control	
4.7.6	Turnout construction and control	
4.7.7	Signalling	
4.7.8	Overhead line construction	
5.0.0	<i>Commuter rail</i>	
5.0.1	General system description & history	
5.0.2	Length of route(s)	
5.0.3	Number of stations	
5.0.4	Maximum space between stations	
5.0.5	Minimum spacing between stations	
5.0.6	Median & maximum speeds	
5.0.7	Timetables - trains/day etc	
5.0.8	Average dwell time/stn	
5.0.9	Design capacity (pgr per day per route)	
5.0.10	In-car amenities - café? Phone/laptop power? Internet access?	
5.0.11	Current passenger numbers	
5.0.12	Trends in passenger numbers since opening	
5.0.13	Integration with other modes (as per 4.5.0)	
5.0.14	Reasons for changes in pgr numbers	
5.0.15	Safety system requirements, documentation	
5.0.16	Safety record	
5.0.17	Action being taken re safety issues	
5.0.18	Co-ordination with freight traffic	

Issue #	Issue	City ...
6.0.0	Urban/port rail freight	
6.0.1	Urban freight operation	
6.0.2	Government support of local rail freight	
6.0.3	Recent or proposed rail freight infrastructure	
6.0.4	Is reduction of truck traffic an objective?	
6.0.5	Incentives to use local rail infrastructure	
6.0.6	Experience of intermodal transfer vs direct rail access	
7.0.0	Heritage trolleys and streetcars	
7.0.1	General system description & history	
7.0.2	Heritage trolley - downtown transit	
7.0.3	Heritage trolley - tourist features	
7.0.4	Heritage trolley - volunteer involvement	
7.0.5	Heritage trolley integration with LRT	
7.0.6	Types and sources of vehicles	
8.0.0	Trolley bus technology and operations	
8.1.0	<i>System features</i>	
8.1.1	General system description & history	
8.1.2	Number of routes (& % of all bus)	
8.1.3	Length of routes	
8.1.4	Number of vehicles (& % of all bus)	
8.1.5	Future prospects for the system	
8.2.0	<i>Overhead infrastructure and power supply</i>	
8.2.1	Ownership of the overhead system	
8.2.2	Who pays for the system?	
8.2.3	Method of construction	
8.2.4	Sources of line materials	
8.2.5	Design problems encountered	
8.2.6	Interface with rail line overhead	
8.2.7	Maintenance management	
8.2.8	Systems for ensuring power and overhead reliability	
8.2.9	Costs for construction and maintenance	
8.2.10	Source of traction power	
8.2.11	Management of substations and feeders	
8.3.0	<i>Vehicles</i>	
8.3.1	Description of the etb fleet	
8.3.2	New vehicles planned or on order	
8.3.3	Technical & reliability issues with existing vehicles	
8.3.4	Design specifications for new vehicles	
8.3.5	Use of batteries/APUs	
8.3.6	Design innovations planned/under test & Wgtn experience	
8.3.7	Sources of etb parts	
8.3.8	Costs of new vehicles	
8.3.9	Maintenance costs	
8.3.10	Maintenance systems	

Issue #	Issue	City ...
9.0.0	Station and interchange design	
9.0.1	Standardised station design	
9.0.2	Branding	
9.0.3	Identification of station access	
9.0.4	Signage	
9.0.5	Platform ticket issuing/fare collection systems	
9.0.6	Modal interchange design	
9.0.7	Level/low floor access	
9.0.8	Pedestrianisation around transit stops	
9.0.9	Cycle access to transit stops	
9.0.10	Cycle facilities at transit stops	
9.0.11	Provision for cycles on trains	
9.0.12	Station-based passenger info systems	
9.0.13	Security features in station design	
9.0.14	Video surveillance - stations	
9.0.15	Car parks - relation to road & station	
9.0.16	Car parks - general design	
9.0.17	Car parks - security design	
9.0.18	Car parks - video surveillance	
9.0.19	Car parks - charging, card access etc	
10.0.0	Passenger relations	
10.0.1	Marketing of transit	
10.0.2	Advertising	
10.0.3	Delivery of information to tourists etc	
10.0.4	Methods of assessing potential patronage	
10.0.5	Customer satisfaction surveys	
10.0.6	Customer satisfaction ratings - excellent/very good/good	
10.0.7	Staff satisfaction ratings	