THE TRANSPORT SOLUTION
FOR THE
21st CENTURY

It’s child’s play,
as simple as A, B, C.

There are 3 main reasons why people won’t use public transport.

A. Travelling by public transport means that you have to share with strangers who are not always of your choosing. The anti-social behaviour of even one passenger can make for a very unpleasant journey and the notion of travelling on public transport late at night is regarded as far to dangerous by most people.

Car pooling suffers the same problem. We work beside some people because we are paid to. Sharing a car with them for an hour a day was not in the contract.

B. Public transport runs to a timetable and if you miss the bus or tram, you can have a long wait for the next one. Public vehicles rarely connect with each other which means long delays between vehicles.

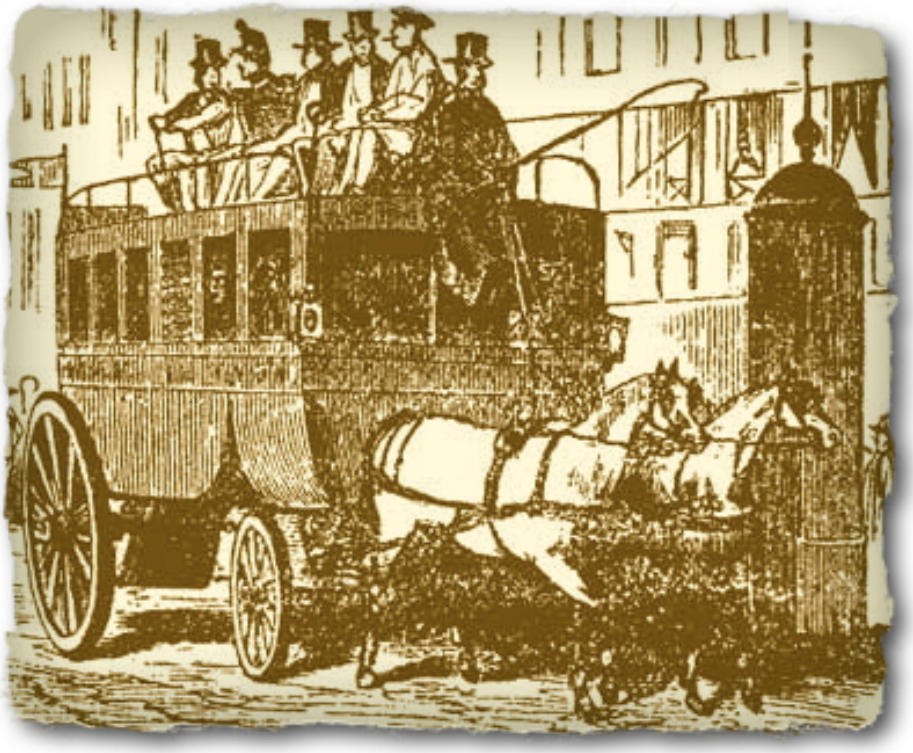
C. Most public transport runs on a radial system from the central business district to the suburbs, with limited cross-town transport. When someone wants to travel a few kilometres across the radial lines they can be forced to make a long journey into the city, wait for connecting transport then ride back out on another radial line.

History

Prior to the late 1700s, cities were limited in size by the ability of people to walk across them.

The Industrial Revolution in England caused the cities to grow enormously and people needed transport to get to work, so public transport was born.

The first horse-drawn omnibus service started in Nantes, France, in 1826.



Roads and streets were not sealed with bitumen as they are today. They were just muddy tracks. Some of the better streets had cobble stones or granite blocks which provided a very rough and noisy ride.

As rails had long been used in mines and industries, they were laid in the streets providing a horse-drawn tram service.

In 1901, Siemens applied electric motors to trams in Germany.

Petrol driven omnibuses began successful operations in New York City in 1905 and diesel engines were fitted shortly afterwards.

The people of the USA embraced electric trams which they called trolley cars. They became the standard form of public transport across the country.

During the Great Depression many American towns did not have the money to maintain their trolley car systems.

Driven purely by profit, General Motors, Firestone and Standard Oil Company combined to form National City Lines. From 1936, at the height of The Great Depression, this front company went from one impoverished town to another across the USA and bought up the public transport systems. They tore down all the overhead wires and tore up all the rails for the trolley cars, replacing them with buses.

The world learned to accept that buses were the normal form of public transport.

During the 1950s and 1960s, Australian cities, with the exception of Melbourne, removed their trams because they were getting in the way of the increasing number of cars. Primarily, they were replaced with buses.

When Adelaide proposed extending the Glenelg tram line along King William Street and North Terrace the main complaint was that the trams would take a lane in each direction from the cars.

The buses got bigger.

The buses got better.

But they were still buses.

And they suffered from the 3 main reasons why the public won't use use public transport.

Portland, Oregon is held up as a shining example of public transport in a modern city. I have been there and agree that it is a wonderful system of integrated public transport.

It must also be noted that this world beating and ideal system only supplies ***12.6%*** of the trips made in Portland.

The Stone Age,
The Iron Age,
The Car Age

Henry Ford's introduction of mass production in 1908 meant that far more people could afford a car. If you owned a car, you travelled whenever and wherever you wanted, 24 hours a day. You only travelled with people of your choice and you travelled directly from door to door.

Motorola invented the car radio in 1929 so individuals had a choice of music, talk or silence as they travelled.

During the late '50s and into the '60s, Western economic growth meant a lot more people could buy cars which became serious competitors to the bus.

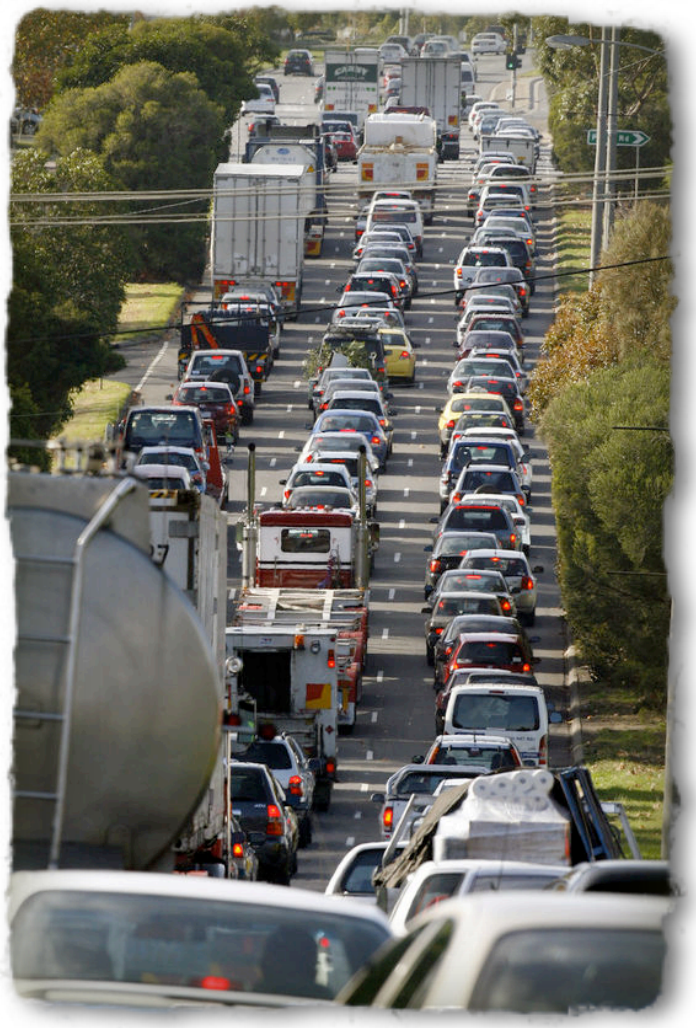
As people bought more cars, public transport suffered and increasingly had to be helped by government subsidies. As the quality and frequency of public transport declined, more people were forced to buy cars, compounding the problem.

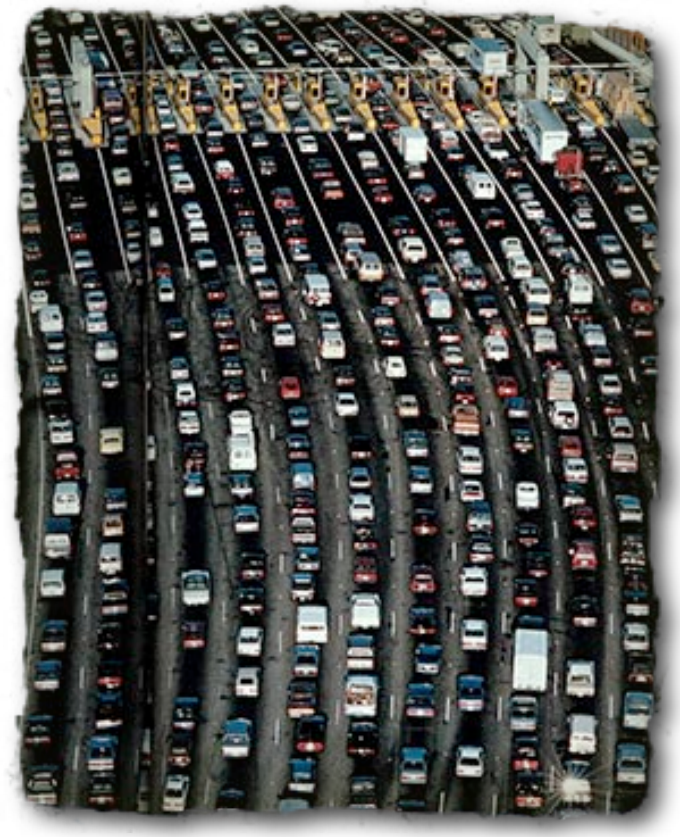
Many cities suffered from a new phenomenon called the ‘traffic jam’.

Traffic engineers applied all sorts of solutions to the traffic jams but found that cars were a bit like the amount of junk in a man’s shed. The more shelves he has, the more junk he can collect. As governments built more roads, the public bought more cars.

In Los Angeles in the 1960s, a massive system of freeways was installed. The result was that as travel times were decreased more people bought more cars and public transport virtually disappeared.

More cars caused more traffic jams.





The government built more freeways, public transport decreased further so the public was forced to buy even more cars.

More cars caused even more traffic jams.

The solution

The answer does *not* lie in smaller cars, faster cars, electric cars, diesel cars, bio-diesel cars or any other cars. The answer is to have *less* cars on our roads by applying the benefits of *private* transport to *public* transport.

By introducing 21st century technology to the problem of shifting people and goods around our cities, they can both be moved at a constant 60 km/h while turning central city streets into pedestrian malls and letting kids play cricket on quiet suburban streets.

If public transport could offer:-

- privacy
- low cost
- personal choice of travelling companions
- security from harassment
- clean vehicles with the comfort of modern cars
- on-demand service all day, all night, every day, every night
- travel to just where the passengers want

most people would use public transport as the norm and save their cars for special occasions. Our roads would be freed up for buses, taxis, trucks, delivery vehicles, couriers and trade vehicles such as electricians, plumbers, pest controllers and so on.

The system that offers all of the above is called

Skyweb Express

Skyweb Express

- runs on elevated tracks that carry high speed, computerised, driverless vehicles
- uses off-line stations to maintain vehicle speed at 1 kilometre a minute
- uses light weight vehicles that weigh 850 kilograms fully loaded
- seats 3 adults in each vehicle with room for wheelchairs, bikes and luggage
- functions all day, all night, every day, every night
- has a station 250 metres from every citizen in the city
- doesn't run to a timetable, but runs on demand like a lift
- moves 22,000 people per hour past any one point
- moves between 1,200-4,500 people per hour from each station
- so eighty stations would move up to 360,000 people per hour
- has stations inside shopping malls, airports, bus terminals, office blocks etc.
- uses virtually silent, electric-powered vehicles running on rubber tyres
- is powered by electricity produced from zero-pollution solar, hot rocks or wind
- is very cost-competitive with current public transport
- requires no government subsidy to run.

It’s not a monorail

London’s Underground (The Tube), has over 400 kilometres of dual rail and most of it is elevated because it is a lot cheaper than tunnelling.

Chicago has had an elevated dual rail system, “The El”, since 1892.

The Airtrain in Brisbane is elevated for 8 kilometres and it’s a dual rail train.

Bangkok’s elevated Skytrain is not a monorail. It’s a dual rail train.

Many people assume that because Skyweb Express is elevated it must be a monorail.

Skyweb Express has no rails.

Each vehicle runs on four pneumatic tyres on a steel track. Like a baby’s pusher, the back wheels are fixed and the front wheels swivel freely. The acceleration and braking are done by linear induction motors so the wheels don’t need the same grip as a car. The chassis of each vehicle is enclosed within the guideway to reduce road noise and to solve the problems of ice and snow. The guideway also provides shielding to prevent electro-magnetic interference on devices including radios and television sets.

A dedicated transport corridor can be underground, elevated or securely fenced off such as the Very Fast Trains (TGV) in France. The benefit of dedicated corridors is that vehicles can maintain high speed without the worry of obstructions such as traffic, pedestrians, children, stray dogs and wild life.

Fencing off a corridor in urban areas is not practical and elevating is a lot cheaper than tunnelling. Skyweb Express will use an elevated guideway as a dedicated corridor to maintain speed.

A dual rail system switches the direction of a train by bending 2 steel rails about 20 mm. They are called points and take a few seconds to switch.

A monorail must move a heavy beam about a metre. Florida's Disney World monorail takes 12 seconds to switch and Kuala Lumpur's monorail (right) takes a similar time which precludes a short headway between vehicles. Because of the long headway, monorails can't use small vehicles which allow passengers to choose their travelling companions.

Monorails must crowd people into carriages meaning they have to travel with strangers. Most people will take the car rather than travel with strangers.

A monorail has 2 bogies per carriage. Each bogie consists of 2 truck tyres on top of the beam and 2 truck tyres on either side. Twelve tyres per carriage cause a lot of friction which wastes energy. They also create a lot of road noise.

Skyweb Express is not a monorail.

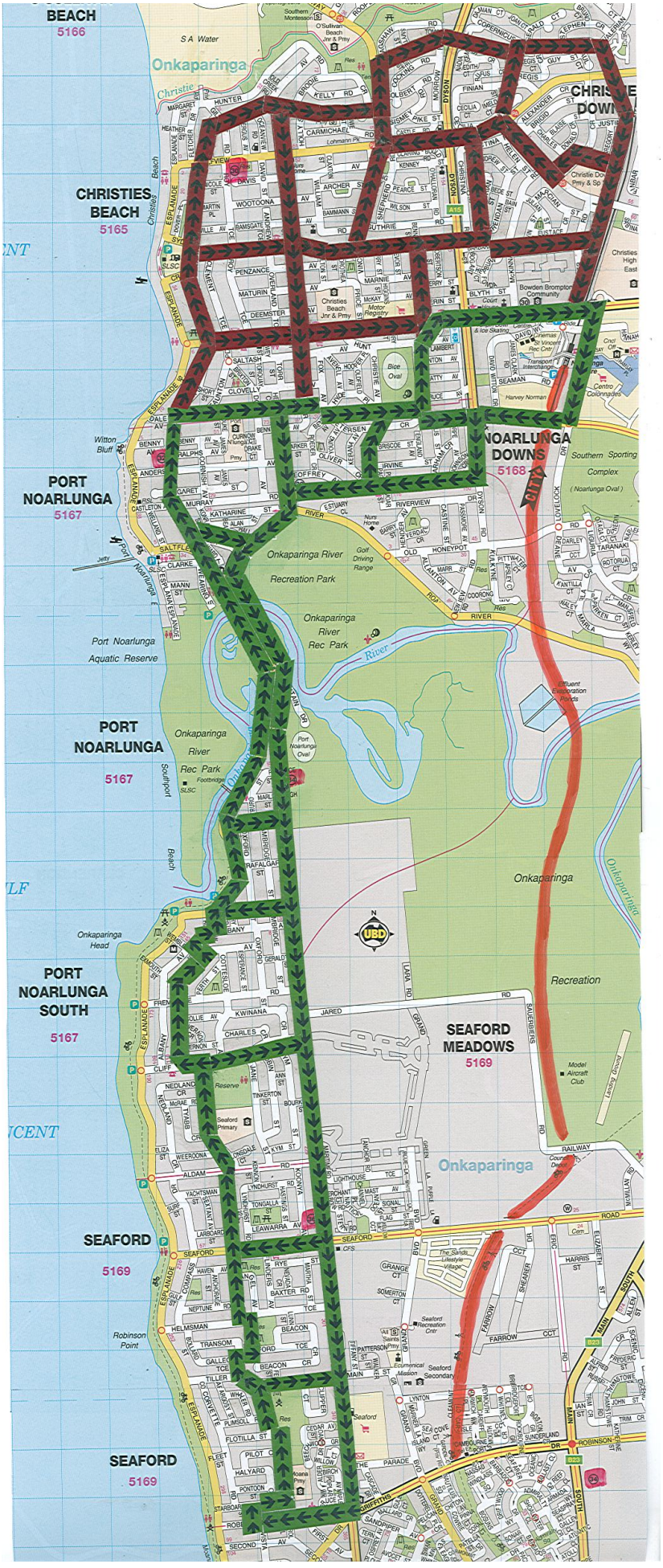
The vehicles run on pneumatic rubber tyres contained within the guideway and are virtually silent. The track doesn't switch at all. When the computer wants a vehicle to switch, a left or a right arm engages rather like a person grabbing the banister rail when they run down the stairs. It is this magic ingredient that allows a headway of only half a second between vehicles while still maintaining 60km/h that allows a passenger capacity of which monorails can only dream.

The 21st Century

Industry has been computer driven over fifty years. Computer technology just keeps improving and industry improves with it.

The sophistication of that technology has now been developed to the point where it can be successfully applied to moving people and leaving the traffic jams, the road deaths, pollution and the oil crisis in the history books of the 20th Century.

Skyweb Express incorporates all the technology of modern computer driven industry providing a public transport system that not only competes with, but in many ways exceeds the benefits of the private motor car.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Port Noarlunga
Aquatic Reserve
Onkaparinga Head
Robinson
Point
Witton
Bluff
Recreation
Onkaparinga
Southern Sporting
Complex
(Noarlunga Oval)

The cost

The cost of the system is approximately AUD$20-$22 million per kilometre. This figure includes the guideway, 35 vehicles for each kilometre of guideway, air conditioning, licensing, software and maintenance facilities.

As each city will want different features, that figure will vary considerably. While a highway with 1 lane in each direction can be constructed for less, Skyweb Express will move as many people as a 3 lane highway, assuming the highway is not disabled by traffic jams.

As a cost comparison, the railway line in the South of Adelaide is currently being extended from Noarlunga Centre to Seaford Rise. The approximate route of the new extension is shown in orange on the facing page.

A proposed grid for Skyweb Express is in green. The railway extension is 5.5 km and will cost $291.2 million. The proposed Skyweb Express grid would have been 16.5 kilometres and cost approximately $346 million to install, or $55 million more than the railway.

Railways are noisy so they don't run close to residential areas where they are needed. To get to the new railway stations passengers will travel by buses or cars to kiss 'n' ride or park 'n' ride car parks.

Skyweb Express runs almost silently with rubber tyres on a steel track inside its guideway. It is aesthetically designed to blend into the various environments through which it passes as close as possible to the houses, schools, shops and pubs with stations every 500 metres. Because it is a grid layout and not the linear layout of a railway, passengers within the gridded area will have a maximum walk of 250 metres to a station. Stations will be built into the school grounds and shopping centres.

It is important to note that although the train service is being extended to Seaford Rise, all the current bus services covering the green area must be maintained so there will be no financial saving.

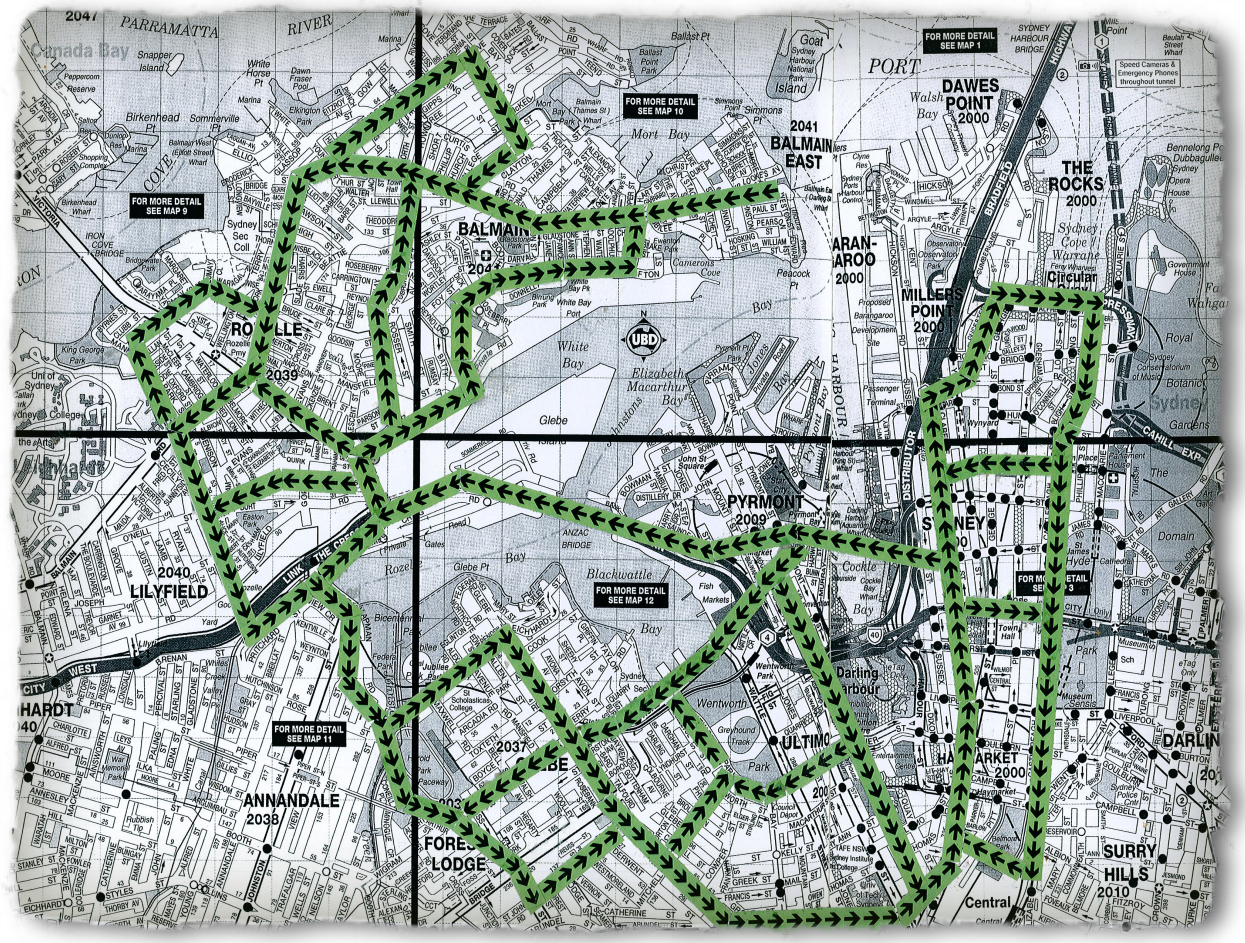
Had Skyweb Express been installed instead of the railway it would have replaced the bus services and saved the costs of drivers' and inspectors' wages as well as fare evasion. Government subsidies would also cease. Without the weight of the buses, the damage to the roads would also have been minimised. Over the next 20 years, we will spend far more than the $55 million difference to run, maintain, replace and especially to subsidise the buses.

As Skyweb Express is a modular system, at any time in the future it can be extended with a minimum of disruption. A proposed grid serving Christies Beach has been marked in brown and is 8.3 km long. It would cost $174 million to install, which again must be offset against the cost of running buses, fare evasion, road damage from heavy buses and the tens of millions of dollars of government subsidies essential to maintain bus services.

Skyweb Express works best as a one-way grid. There is no need for passengers to travel into the hub of a radial system then board a second vehicle to carry them back out to their destinations on another radial line. Because it is a one-way system, it is irrelevant which direction the nearest guideway is travelling. With the press of a button the passenger will choose a destination and the computer will determine the most efficient way to get there. This may include travelling away from the destination until the first available cross guideway, the same as taxis in a one-way street system.

Sydney

The diagram below shows the inner area of Sydney overlaid with a proposed system covering the Balmain peninsula, Darling Harbour and the central business district.



It will service the new White Bay passenger liner terminal, Darling Harbour, Central Station and the central business district down to Circular Quay. The monorail and the light rail can both be removed because Skyweb Express will cover the same areas. Not only will it carry a lot more passengers, but it will move them much faster and and take them directly to their destinations anywhere within the gridded area. Most of the buses can be replaced also. Private cars can be banned from the streets between Central Station and Circular Quay, or pay a heavy ‘Congestion Tax’ if they choose to enter that area.

As it is displayed, there are 28 kilometres of guideway which, at $21 million per kilometre, would have a capital cost of $588. Thirty five vehicles per kilometre means a total of 980 vehicles.

The 17 kilometres of Epping to Chatswood Rail Line opened in 2009 at a cost of $2,300 million and moves 4,000 passengers per hour.

There is no limit to where the system can go or how broad its coverage. To put a station inside the Opera House, to include The Rocks, the University of Sydney or extend the system to other suburbs such as Ryde or across the Harbour Bridge is only a matter of money and the desire to do it.

So let’s you and me go for a ride…

We have a standing weekly appointment at the Melbourne Sports & Aquatic Centre by Lake Albert. A few minutes before we are due to meet, I walk to the station in the foyer of the Economics Building of the University of Melbourne.

On the wall are 4 computers. I swipe my Smart Card through a slot and touch the computer screen to select the Royal Melbourne Hospital. As I step into the first vehicle, I swipe my Smart Card again and the computer reads where I want to go. I sit down, the door closes and my car smoothly moves off at 5 km/h. Once clear of the foyer, it accelerates to 60 km/h and enters the main stream of traffic.

As it approaches the Royal Melbourne Hospital it switches to a side track that takes it inside the foyer of the building, again at 5 km/h.

You have been delayed so I step onto the platform to wait for you. There is no crowd on the platform because most passengers just turn up, step into a waiting vehicle and ride away. Sometimes when there is a rush, they have to wait a minute or so.

When you have finished your business you take the lift downstairs and walk across the hall to the station.

There are now 3 cars in the Royal Melbourne Hospital station, and a woman in a wheelchair is getting into the first one.

A young mother with a 5-year-old and a baby in a pram is entering the second one.

I step up to the computers, swipe my Smart Card again and touch the logo for the Melbourne Sports & Aquatic Centre. We walk to the third car and I swipe my Smart Card as we step in and take a seat. You don’t need a ticket as the fare is per vehicle, not per passenger, so this trip is my shout.

We silently glide forward at 5 km/h until we leave the foyer when the car smoothly accelerates to 60 km/h and seamlessly joins the main stream of traffic.

Travelling at a kilometre a minute, we chat quietly as the computer guides our car along the most efficient route, avoiding areas of heavy traffic and any parts of the guideway under repair, above all the roads, traffic, railways and tram lines.

As the grid is extended over time, more motorists will choose to be passengers on the system. The passenger car traffic will decrease leaving the roads to buses, taxis and delivery trucks as well as plumbers, electricians and other trade vehicles.

As we near the Aquatic Centre our vehicle diverts from the main track, enters the building and slows down again to 5 km/h. It stops behind 2 other parked vehicles, the door opens and we walk 6 paces to the front desk.

At a kilometre a minute from Royal Melbourne Hospital to Lake Albert, the trip has taken us 7 minutes.

For 2 hours we indulge ourselves with the facilities at the Aquatic Centre. After showering and a refreshing soft drink, we walk to station in the foyer and bid each other farewell.

You program your Smart Card to go home to Kew and enter the first car.

I program my Smart Card to go to Collins Street in the city where I have a meeting.

My car follows a little over 8 metres behind yours until it turns left on St. Kilda Road and heads for the city. You have 9 minutes to glance at your paper or listen to your choice of music, radio or a comedy channel before the computer delivers you to Kew station, 120 metres from your home.

My meeting goes well and finishes at 8:30pm. Four of us decide to go for a meal afterwards so we walk to the Skyweb Express station and crowd into a vehicle. The maximum weight any vehicle can carry is 300kg so an automatic voice tells us that we are overloaded by 68kg. Two of us get into the car behind and follow our friends to Lygon Street in Carlton.

Well after midnight and with a splendid Italian meal and a fair bit of chianti on board, we are all well past the point of driving a car but that is not a concern. There are no random breath tests on Skyweb Express and it runs 24 hours a day. Walking to the nearest station, we say our farewells and get into 4 separate vehicles.

As I silently glide off, I notice 2 young women getting into the car behind me. No looking for a taxi, no annoying taxi driver, no breathaliser, and no leering pests on the tram to hassle them. It is nearly 2am but they can relax and enjoy private transportation from Carlton to their home.

I live at Essendon so I settle back, switch the music off and bask in the silence for the 8 minute journey home.

Relative Speeds in Adelaide

Because all current forms of public transport have to continually stop to pick up or set down passengers, the average speed is much less than the top speed. Buses and trams are also impeded by heavy traffic. The following chart uses the scheduled times but in peak hours when public transport is required by most people, the actual speeds achieved are11 much slower.

Vehicle	Route	m per min	km/h
Tram	Entertainment Centre to Glenelg	273 m/min	16 km/h
Express bus	City to Arndale	363 m/min	22 km/h
Express bus	City to cnr Woodville/Port Rds	418 m/min	25 km/h
Express O-Bahn	Currie Street to Tea Tree Plaza	583 m/min	35 km/h
Express bus	City to Reynella	670 m/min	40 km/h
Express train	City to Noarlunga Centre	1000 m/min	60 km/h
Express train	City to Mawson Lakes	1000 m/min	60 km/h
Skyweb Express	anywhere to anywhere	1000 m/min	60 km/h

It must also be recognised that all the transport systems above except cars, taxis and Skyweb Express do not travel directly to where the passenger wants to go. If a second or third bus, train or tram is needed to complete a journey then both the time taken to travel the extra distance as well as the time waiting for the connecting vehicle must be taken into account, decreasing the metres per minute immensely.

While the top speed of the O-Bahn curb guided buses is 100 km per hour, even the express buses on the O-Bahn average only one third of that speed.

The only trains that can match Skyweb Express are on the long express routes.

Passenger capacity

Adelaide trains can carry 130 people per carriage with up to 5 carriages per train. Most of the passengers are standing. Because we can't make people hurry on or off trains, the minimum headway between trains is limited to about 15 minutes. If we manage a 12 minute headway between trains (making 5 trains per hour, which they never do), the new railway extension to Seaford Rise will potentially carry 3,250 passengers per hour with most of them standing. Push bikes, prams, wheelchairs, electric invalid scooters and luggage on crowded trains are very inconvenient.

Adelaide's new trams can carry up to 180 passengers with 126 standing. In peak hour, they run every 10 minutes (six per hour) carrying up to 1,080 passengers per hour. Again, any wheeled vehicles and luggage are a real inconvenience on crowded trams.

Skyweb Express can carry up to 21,600 passengers per hour with all of them seated. Wheeled vehicles and luggage will be carried with no inconvenience to anybody.

Adelaide Trams	Adelaide Trains	Skyweb Express
180 passengers	130 passengers	3 passengers
	x5 carriages	x2 per second
		6 passengers
	650 per train	x60 second per min
x6 trams per hour	x5 trains per hour	360
		x60 min per hour
1,080 passengers p/h	**3,250 passengers p/h**	**21,600 passengers p/h**

Because it operates as a grid, the passenger capacity can't be compared to a linear system such as a highway or a railway. It must be compared to a squeeze point such as Sydney Harbour Bridge. In that situation, Skyweb Express would carry 22,000 people per hour in each direction.

Stations inside buildings

Because the vehicles produce no fumes and almost no noise, they can go right inside buildings such as shopping malls, hospitals, airports and bus terminals, universities, police and military academies, and any office towers and hotels that pay for the service.

Wheelchair access

All platforms will be built so that access for wheelchairs, electric scooters, prams, shopping trolleys and wheeled suitcases is easy. At First Floor level, the guideway will simply divert to the platform. Where the platform is at street level, the guideway will drop down to the level of the platform, rising back up to the main guideway after the station. There will be no steps, no dangerous gaps between the platforms and vehicle and no need to install lifts.

Noise pollution

When petrol or diesel powered buses are put under strain such as accelerating or climbing a hill, the level of noise from the motors increases. Even with a proper muffler they are still very noisy. The noise at a city bus stop at peak hour is very unpleasant.

The linear induction motors of Skyweb Express are silent, the only noise coming from windage and the tyres on the steel track. At stations, the speed of 5km/h will not create any wind noise and the limited tyre noise will be contained inside the guideway.

Air pollution

The exhaust from petroleum powered vehicles is a huge contributor to air pollution in any city. Linear induction motors, powered by green electricity, produce no pollution at all.

Water pollution

Pollutants such as oils and lubricants that fall off a motor vehicle finish up on the road. Whenever the next rain falls, the pollutants wash down the storm water system and finish up in the rivers and the ocean.

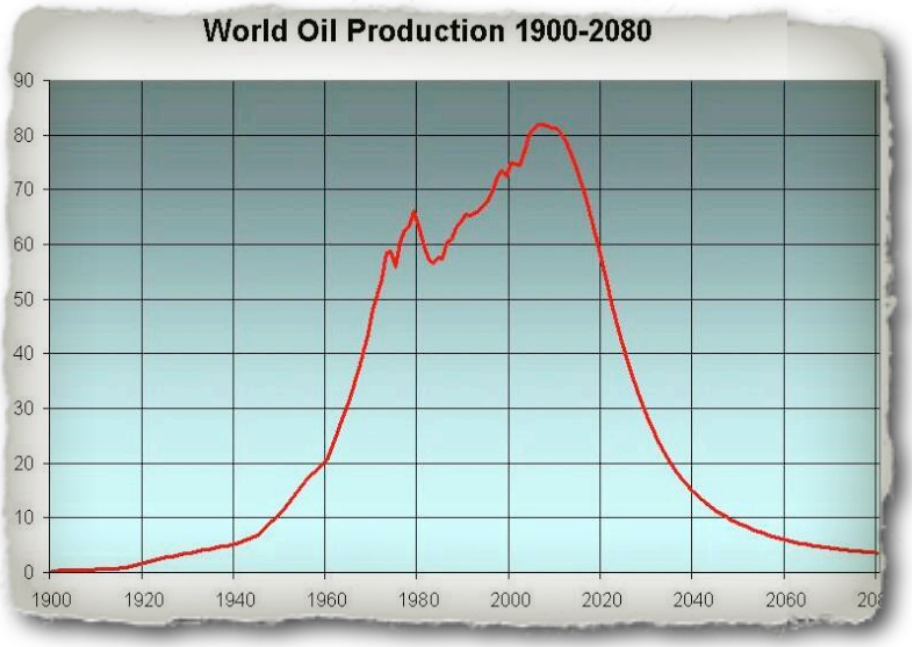
The fewer petroleum driven vehicles, the less pollutants and the cleaner our waterways will be. Skyweb Express vehicles are electric powered. The linear induction motors have no moving parts so they don’t need any lubricants.

Skyweb Express vehicles will be maintained and washed by paid staff using eco-friendly methods to protect our waterways.

Peak oil

Oil used to gush out of the ground so oil wells were known as “gushers”. As the underground pressure dropped, the oil needed to be pumped to the surface.

Peak oil is when we get 100 barrels of oil out of the ground and use 51 of them to make electricity to pump out the next 100 barrels. Although there is some dispute, many scientists agree that 2005 was the year of peak oil. Since then, we have been on the downhill side of a bell curve to virtually no oil production at all.



From the time of Abraham and Noah, it took until 1830 for the world’s population to finally reach one billion. It took just 100 years to reach the second billion. We currently have a population of over six billion and that is expected to double before the middle of the current century, or in the next thirty or forty years.

Not only are there many more people to consume the oil but China and India, with a combined population of 3,500 million, are rapidly becoming industrialised and wealthy. As their economies grow, so do their citizens’ desires for consumer goods including cars, air conditioners and fridges. All these things require energy to manufacture and to run.

The argument about whether or not the world has reached “peak oil” is fatuous because teenagers today will live long enough to see the world effectively run out of oil.

To put in a public transport system today that relies on oil is very short sighted and not sustainable. As the price of oil rises out of reach we are going to have to look for more economical means of transport.

Alternative fuels

Many people think that as petrol runs out we will simply switch over to other forms of fuel such as electricity, grain ethanol, hydrogen fuel cells, compressed air, compressed natural gas and so on.

All of those fuels have been available for decades and they still are. The reason that they are not in general use is because they are not cost competitive. Next time you fill your petrol tank, be grateful if you are only paying $1.30 a litre. As the oil runs out, your children will probably be forced to pay 3 and 4 times that amount for the alternatives to petrol.

Road safety

Human error will always be a major factor in the road toll. The more vehicles that are driven by people, the more people who will be injured or killed.

By employing computer technology, we can reduce the number of cars on the roads and thereby reduce the road toll.

The computer control system has operated with over 20,000 vehicles in a simulation and has been certified by Honeywell to be ready for commercialisation.

Under the licensing agreement, all the vehicles will have to be maintained to a specified high mechanical high standard.

Freight

Specially adapted flatcars will carry light freight around the city and eventually to other cities. The weight of the chassis with the flatcar on top leaves room for a payload of 450 kilograms.

Breweries, wine merchants, bakeries, chicken processors, abottoirs, laundries and many other industries will be able to deliver their products directly to hotels and shopping centres that will have stations built into them. Supermarkets will be supplied without the need for trucks.

A flatcar can arrive at a customer's station every half a second so several forklift trucks will be working hard to keep up with the rush. Factories and warehouses that have to deal with large amounts of freight will install automated loading and unloading systems.

Mum's taxi

Every mother is familiar with this soubriquette for her car. With Skyweb Express kids will be able to get themselves to school, sport, ballet, music lessons and wherever else Mum's taxi currently delivers them. It will be simple to use, cheap and safe from the danger of traffic and predators. Mum's taxi will become Mum's car once again.

Street lighting

Current street lighting can be replaced by more efficient, aesthetic lighting built into the side of the elevated guideway or on poles above it.

Overhead wires

Overhead wires represent a serious visual pollution problem.

The insulation on wires deteriorates rapidly when exposed to UV light, extremes of hot and cold weather, wind, rain as well as birds and their droppings. All those factors reduce the life of the wires which must be replaced. Because the wires are elevated on poles, the labour to replace them is expensive.

Conduits built into the guideway can carry all telephone and electric wires as well as cables for television and future technologies such as holograms. Access for maintenance or additional cables is a simple matter. Because the insulation is not exposed to the elements, the life of the cables will be extended immeasurably and the cost of maintaining them will be negligible.

The utility companies that own the wires will be charged a fee for the service.

Fares

Fares will be charged per journey rather than per passenger, the same as a taxi. When 2 or 3 passengers travel together they will share the cost.

The specific cost of running the system depends on the cost of electricity, renting land for maintenance workshops, promotion and wages. Those costs will be off-set by income from utility companies to carry their wires and cables within the guideway, rental from stations in private buildings and vehicles specifically designed to carry up to 450 kg of freight instead of passengers.

Detailed studies in the USA and the Middle East show that even one passenger in the vehicle would pay little more than current public transport and a lot less than a taxi. As the price of petrol rises, the price of electricity will remain relatively stable making Skyweb Express far more economical.

TransAdelaide buys electricity for its trams from The Electricity Trust of South Australia (ETSA) at 17 cents per kilowatt hour. Assuming the same deal in other Australian cities, it will cost about 5.6 cents per kilometre to move a Skyweb Express vehicle 1 kilometre.

The cost price of a 7 kilometre journey will be 39.2 cents divided by the number of passengers.

Hence:

1 person	2 people	3 people
7km @ 5.6c/km	7km @ 5.6c/km	7km @ 5.6c/km
39.2 cents	19.6 cents each	13.1 cents each

Such a low running cost leaves an operator a wide margin for profit.