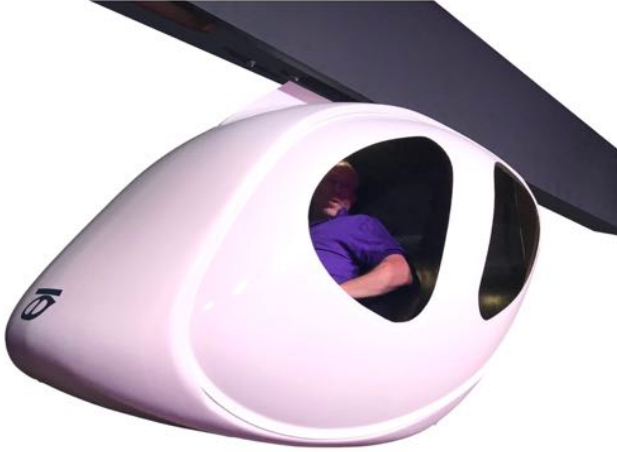
Transit X



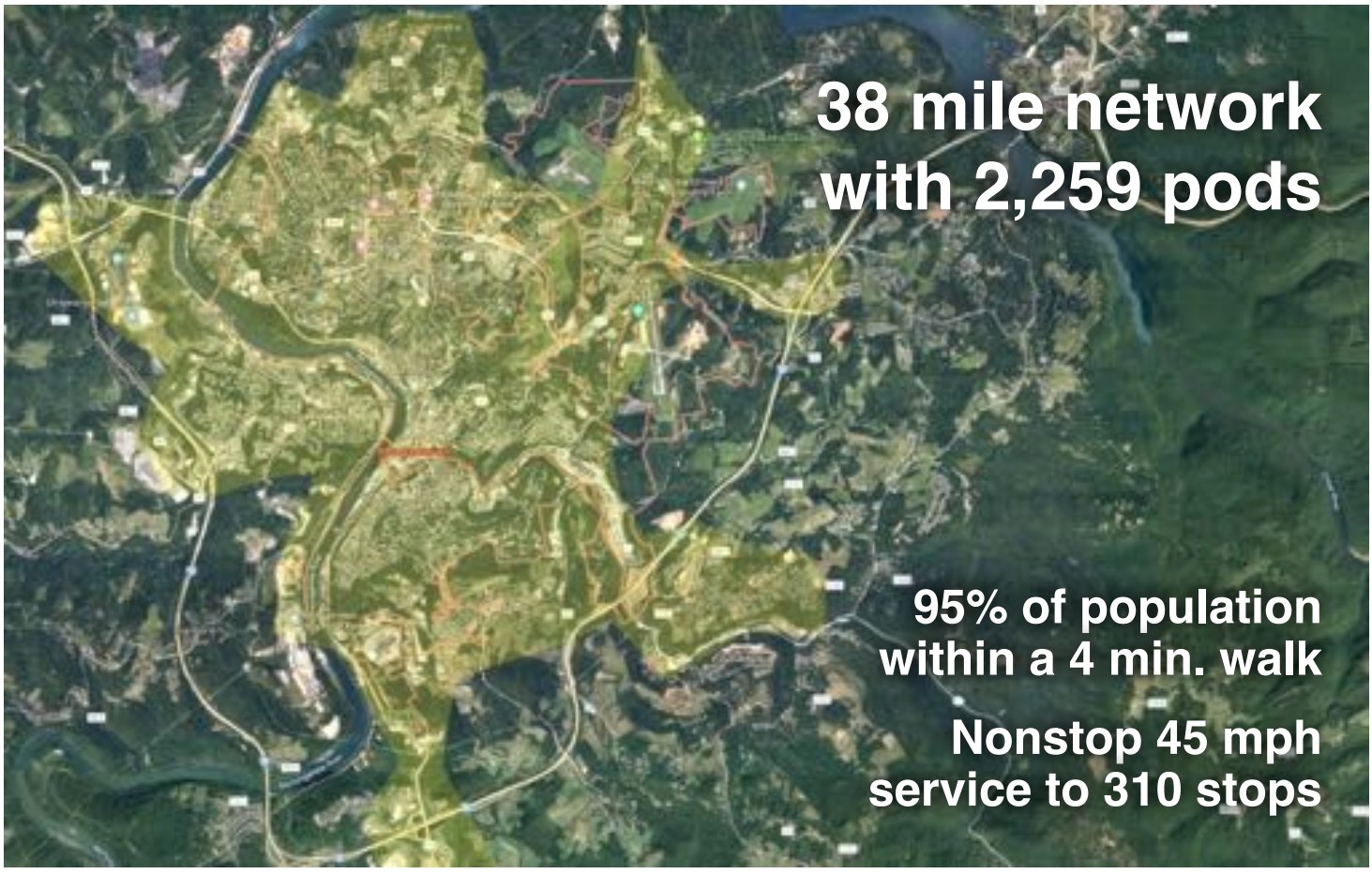
Transit X presents a preliminary proposal for a sustainable micro-road network — a fleet of automated electric vehicles (pods) for passengers and freight on a local and regional podway providing equitable public transportation for

Morgantown, WV

This proposal is downloadable at transitx.com/proposals/Transit_X_for_Morgantown,WV.pdf

High capacity • High speed • Nonstop • 24/7
Solar powered • Zero Wait • Door-to-door • Resilient

A companion Transit X Handbook is available at transitx.com/transitxhandbook.pdf



Proposal Overview

Transit X proposes to finance, build and operate a sustainable micro-road podway to carry passengers and freight for Morgantown that makes the Transit X service convenient to 95% of the population.

Transit X efficiently services both suburbs and cities and provides for a higher quality of life. See transitx.com for more details. This 3-minute video (transitx.com/video) describes our innovative solution.

Major benefits

- Reduce congestion
- Provide parking relief
- Reduce pollution
- Improve safety

The Transit X Handbook (transitx.com/transitxhandbook.pdf) answers many questions about our service, the company, our technology, and the way we address: congestion, parking, road safety, pedestrian safety, ADA compliance, sustainability, fares, solar+storage, construction, aesthetics, operations, economic development, quality of service, security, station footprint, equitability, carbon footprint, transit integration, resiliency, reliability, rights-of-way, and open space.

Congestion, parking, pollution, and safety

Most regions suffer from traffic congestion, limited parking, air pollution, and unsafe roads. Potential solutions are costly, but Transit X can solve these challenges without public funding. Transit X can integrate into the built environment, providing both short term relief and a long term solution.

High Capacity & High Speed

A single track carries 12,000 pods per hour (20,000 to 50,000 passengers per hour). Two boarding areas fit in a single car space and provide 2,000 boardings per hour. For urban commutes, pods trips are 3 times faster than car trips and the high-speed podway provides faster door-to-door trips than air travel for distances of 1,000 miles or less.

Zero Footprint and Minimal Disruption

Transit X features stops that don't interfere with pedestrians or other forms of transportation. We use easements alongside highway and roads and integrate utility lines and poles Non-stop interchanges fit above existing intersections. Factory-built tracks and posts enable fast installation with minimal disruption. There are options for long crossings using bridges or underground tunnels. Posts are typically spaced at 23 m (25 yds).

Low-cost Infrastructure & equitable fares

Transit X does not require government funding because our revenue from fares, freight, and advertising is greater than our costs. We have reduced or eliminated many costs of transportation including the cost of materials, land, construction, fuel, debt service, and labor. Our projects are typically financed by investment banks, private equity firms, banks, and governments.

Proven technology

Our team and partners have built fully automated systems that are now in operation around the world. Transit X may look unique, but the underlying design is very similar to systems that have been operating for 40 years with an exemplary safety record. The rollout and maiden flight occurred on Oct 29, 2018 in Leominster, Massachusetts. The first Transit X system will be demonstrated by the end of 2019.

Service Quality

Transit X provides on-demand, last-mile service that is superior to cars or buses. An operating agreement will guarantee high levels of availability and reliability. Our use of small vehicles (pods) makes this possible. By reducing car use, Transit X creates walkable and bike-friendly neighborhoods.

Less pollution: Air, Sound, Light, Visual, Water

Transit X offers a much higher quality of life by eliminating many forms of pollution. Pods are quiet, efficient and have zero emissions. Pods offer less visual impact than the existing roads and vehicles, and utility lines can be hidden within the track. At night, there is no light pollution from headlights or taillights. Water pollution from road runoff is significantly reduced. Parking lots and roadways can be converted into green space and community paths as they become unnecessary.

Sustainable and Efficient

Pods weigh only 55 kg (121 lbs) and achieve over 20 times the efficiency of electric cars. Solar, wind, and storage installed on our tracks and posts can provide 100% of the clean energy needed to power the system.

More Transit & Fewer Cars

Transit X provides the convenience and privacy that people value in cars, yet without the negative impacts of personal cars. Transit X combines the best of mass transit and personal transportation modes which will lead to greater use of public transit and fewer cars.

De-risking Projects

Transit X partners with large, established firms to provide fixed-price contracts for the engineering, certification, construction, and operations of a Transit X system. Theses partnerships enable Transit X to de-risk all of the major elements of the project, and provide performance guarantees. We work with local construction firms.

Jobs and Workforce Development

Many regional jobs will be created to build a new transportation infrastructure, as well many new types of jobs will be created from economic growth. The majority of

the construction jobs will be locally sourced and preferential hiring is given to those displaced by the transition.

Revenue Generator for Government

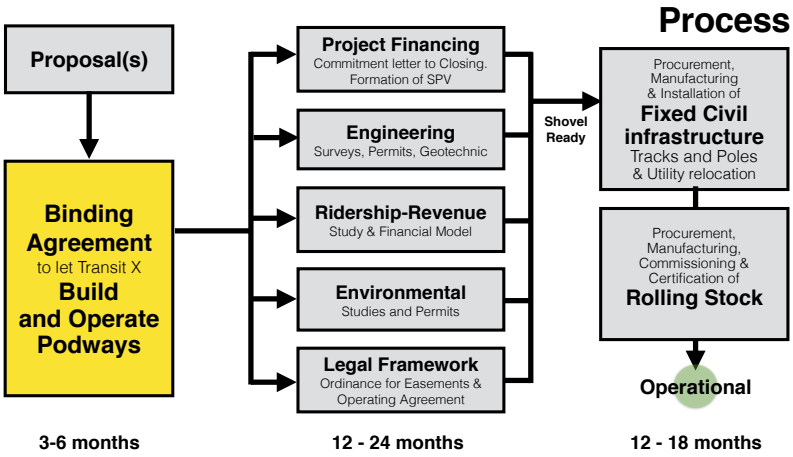
Not only does Transit X not require public financing, but the government and private easement owners receive 4-5% of gross revenue, which would be US$13 million per year average over the first 10 years.

Short and Long Term Solution

A project could be operational within 24 months from the start of a project. Transit X offers a rapidly-deployable solution that provides long term benefits. We would form a local company to build, operate, and maintain the network. At least 75% of the profits would be invested back into the region.

Moving Forward

The diagram shows our process for a project. We submit a project proposal, then ask for a commitment for Transit X to build and operate a podway along rights-of-way easements. Example documents and a sample project schedule can be viewed at: transitx.com/process



Evaluation

Please review our preliminary proposal, and then ask us any questions. We would be happy to provide further information, address specific concerns, or meet with specific people or groups. Any routes or coverage areas shown on the map are only preliminary suggestions and actual routes would be determined based on needs, rights-of-ways, utility corridors, location of trees, and many other factors.

We expect this proposal to be reviewed by one or more committees or working groups. Familiar transportation options, such as buses, light rail, subways, and ride-sharing services (including autonomous vehicles) may have already been considered. Very few options offer the convenience of cars with at least the capacity of buses, and most, if not all, require public funding and subsidies.

Private cars have a dominant mode share because people like the privacy and convenience of a car — despite the significant risks and negative impact associated with them. People won't give up their cars unless the alternative is both better and cheaper. That is what Transit X can provide.

We hope you agree that this proposal offers a way to address your challenges in both the short and long term, providing an option that is better and lower risk than any alternative — including continuing with the status quo.

We hope you will conclude that moving forward with Transit X is an excellent opportunity to meet your current and future challenges.

Once we agree to move forward, we look to receive a commitment for Transit X to build and operate a podway along rights-of-way easements.

In parallel, we could refine the routes and meet with project stakeholders.

Other Resources

The links below provide general information about Transit X:

- One minute video overview (transitx.com/video)
- Transit X Handbook (transitx.com/transitxhandbook.pdf)
- Letters of Project Financing, Due Diligence, Contracts (transitx.com/letters.pdf)
- Memorandum of Understanding template (transitx.com/process/mou.html)
- Example Right-of-Way agreement (transitx.com/process/resolution.html)
- Operating Agreement (transitx.com/process/operating_agreement.html)
- General Q & A (transitx.com/QandA.html)
- Other proposals (transitx.com/proposals)

Addendum

The remaining pages of this proposal provide project-specific details:

- Project Overview and Impact — *pages 6 and 7*
- Taxes and Fees — *pages 8 and 9*
- Fares — *page 10 and 11*
- Financial Project Summary with Pro Forma — *pages 12 and 13*

We look forward to working with you to improve the quality of life for Morgantown through better transportation.

Sincerely,

Email: hello@transitx.com

Telephone: +1 508-596-7024 (WhatsApp connected)

Zoom e-room: https://zoom.us/j/8229009123

Website: transitx.com

Twitter: http://twitter.com/TransitXCorp

Mail: 1127 Commonwealth Ave #30, Boston, MA 02134 USA

1	**Transit X network length**	**60**	km	**37.6 miles**
2	People (resident-equivalent) in region	70,350	resident-equivalent population	
3	Route density ratio (route length to service area)	1.45		
4	Number of stops	310		
5	Triple-speed route length	0	km	
6	Water crossing route length	0	km	
7	**Cost of fixed infrastructure**	$219,396,490		
8	…per person	$3,119		
9	Mode share of travel on Transit X (27% after first year)	82%	after 10 years	
10	Distance traveled by passengers on Transit X, per year	518,923,820	km	**322,312,932 miles**
11	…per day	1,421,709	km	**883,049 miles**
12	Daily potential energy generation with standard panels on tracks	464.6	MWh	
13	Sustainable energy use per day	9.6	MWh	2.0% of max capacity
14	Energy storage capital cost for 1 day(s) of supply at $250 per kWh	$2,409,881		
15	Size (rated power) of solar installation	2,241	KW	
16	Cost to generate sustainable energy (at $1,000 per kW)	$2,241,036		
17	Cost of buying sustainable energy at $0.15 per kWh	$1,446	per day	4% of OPEX
18	Daily passengers riding Transit X	57,658	customers	82% of the pop.
19	Distance per passenger per day	25	km	**15.3 miles**
20	Average distance per trip (assuming 3 trips per day)	8	km	**5.1 miles**
21	**Single passenger fare for shared 8 km trip**	**$1.98**		
22	Passenger distance traveled during peak hour	284,342	km	**176,610 miles**
23	**Breakeven**	**15,733**	customers per day (27% of expected and 24% of people convenient to Transit X)	
24	Boarding capacity	111,600	passengers per hour (194% of customers)	
25	**Number of pods for peak demand**	**2,259**	**pods at 82% mode share**	
26	Number of customers per pod	25.5	and 31 people per pod	
27	Distance per pod per year	168,212	km	
28	Two-layer pod garage area (5% of route with side–parking)	2,485	m^2	0.2% of car parking
29	Cost of pods	$14,683,500	is $161 per person	
30	Capital cost of energy generation and storage	$6,046,191	is $86 per person	
31	**Project Finances**			
32	Total Project Cost	$240,126,181		
33	Project cost per km	$3,969,697	per km	US$6.4M per mi.
34	Equity financing	$72,037,854		
35	Debt financing	$168,088,327		
36				
37				
38				
39	Debt service (per year)	$28,575,016		
40	**Yearly fees and taxes (US$231 per capita)**	**$16,281,336**		
41	OPEX + Debt service + Tax + Fees	$56,862,661		
42				
43				
44	Project costs — per person	$3,413		
45	Number of motor vehicles displaced	51,892	motor vehicles	
46	Yearly cost of cars displaced — per person	$6,639		
	Operating costs per passenger-km	$0.02		
47	Full costs per passenger-km	$0.11		
48	Breakeven revenue distance per day	387,948	km	**240,962 miles**
49	Number of tracks in one direction needed to satisfy peak demand	**0.02**		

Impact of proposed network

1	**Reduction in GHG emissions** (metric tons CO2-eq)	51,244	MTCO2-eq annually
2	**Estimated cost to maintain public roadways**	$10,716,245	annually
3	**Reduced waste products**	8,316	metric tons annually
4	**Travel time saved** (non-stop travel and congestion)	438	hrs/person annually
5	**Cost savings from reduced car ownership**	$1,966	per person annually
6	**Increase in household income** (from time savings and car costs)	15%	
7	**Reported injuries avoided**	322	annually
8	**Lives saved** (from safety)	3	annually
9	**Land freed from parking (295 acres)**	1,193,525	m^2
12	**Temperature reduction** (from heat island effect & GHG reductions)	0.5 to 2	°C
11	**Health care savings** (from pollution, injuries)	High	

Model Inputs

15	Ratio of road length to track length	4		
16	Walking speed	4.9	km/h	3 mph
17	Width of convenient swath along track	0.65	km	0 mile
18	Fixed cost per km (track & posts)	$2,790,000		
19	Water crossing: additional cost per km	$8,370,000		
20	Triple-speed: additional cost per km	$5,580,000		
21	Rate factor for water crossings or high-speed links.	2.2		
22	Average distance traveled per person per year (for trips under 1600 km)	10,000	km	6,211 miles
23	Average distance per day per person	27	km	
24	Mode share % of people convenient to Transit X	85%	at 5 min walk.	
25	Percentage of daily demand during peak hour	20%		
26	Maximum capacity per track	23,598	pph	
27	Average dwell time during peak hour	10	seconds	
28	% of pods traveling on route with highest demand	18%		
29	Average speed of pod	72	km/h	45 mph
30	Average # of trips for a daily customer	3	per day	
31	Average passengers per pod during peak hours	2.2	passengers	
32	Average passengers per pod	1.4	passengers	
	Average discount per passenger	18%		
33	Maximum passengers per pod	5	passengers	
34	Empty pods: Percentage non-revenue	25%		
35	Ex-Factory cost per pod	$5,000		
36	Worldwide Median Income per Household (US$)	10,000		
37	Average number of residents per household	2.3		
38	Base fare per km	$0.40		
39	(per mile)	$0.65		
40	O&M as % of project cost	5%		
41	Percentage debt financed	70%		
42	Length of loan/debt	10	years	
43	Interest rate for debt	7%		
44	kg CO2 emissions per liter of gasoline	2.37		
45	Monetary value of 1 hour personal time (USD)	$13.75		
46	Eat. roadway maintenance per year per km	$51,000		
47	Area of one parking lot space	23	m^2	247 sf
48	Commercial income of land (annual)	$1.10	per m^2	
49	Distance from roadway that is convenient	0.20	km	
50	Stops per km	5.1		
51	Boarding capacity per stop	360	pph	
52	Solar panel area per meter of track	2.0		
53	Cost of sustainable energy and storage	$0.15	per kWh	
54	Global Horizontal Irradiance (GHI)	3.8	kWh/m^2/day	
55	Cost to generate sustainable energy	$1,000	per kW	
56	Storage per column	40	kWh	
57	Typical span	23	m cols/km:	44
58	Energy storage cost	$250	per kWh	
59	Energy storage capacity	1	days	
60	Area of parked pod	2.20	m^2	
61	Distance discount at max distance	40%		
62	Max distance discount	500	km	
63	Max usage discount at 10,000 km per capita	50%		
64	Shared Pod Discount	20%		
65	Shared Pod Compartment Discount	40%		
66	Mode share starting discount	67%		

Model Inputs (continued)

68	Name of region or project	Morgantown, WV
69	Currency name	
70	Equal to US$1	1
71	Sustainable energy/electricity generation & storage as	CAPEX
72	Land area of region (sq. km)	52
73	Number of residents in region	70,350
74	% travel within region	90%
75	% of land area served by roads	80%
76	Coverage: % of pop. convenient (4 min walk) to Transit X	95%
77	Annual median household income (US$)	$55,000
78	Convenient walk time to stop (min)	4
79	Triple-speed route length (km)	0
80	Water crossing route length (km)	0.0
81	Visitors per year	0
82	Average length of visit (days)	2
83	Solar production ratio	1.57
84	Regional Fare Factor	1.0
85	EPC costs & contingency	30%
86	Triple-speed (km/h)	242
87	Daily Passengers Adjustment	100%
88	Number of Stops Adjustment	100%
89	Mode Share Adjustment	100%

Pod & Car

		Pod	Car
87	Service life (years)	20	12
88	Full cost of vehicle per year	$200	$9,000
89	Public cost to maintain infrastructure (per km)	$0	$100,000
90	Energy consumption (MPGe)	3564	24
91	Energy consumption (liters/100km)	0.07	9.8
92	Energy consumption (Watt-hours/km)	9	1375
93	mass of CO2 per vehicle per km (kg)	0	0.09875
94	Vehicle mass (kg)	45	1950
95	Average speed of urban travel (km/h)	*72*	16
96	Typical travel time (in minutes) for 8 km trip	*7*	*31*
97	Fare/cost per km	*$0.40*	$0.62
98	Number of deaths per 100M passenger-km	*0.00001*	1
99	Number of injuries per 100M passenger-km	*0.0006*	*62*
100	Volume to park (cubic meters)	5.7	70.9

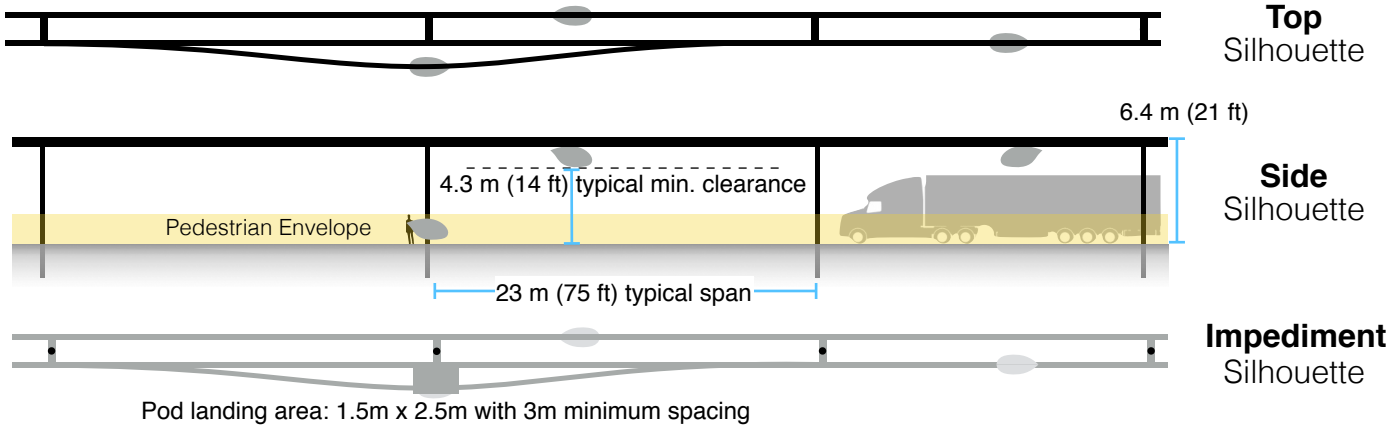
5% of gross revenue is paid for air rights and local taxes.

A minimum payment is based on the Footprint and the Transit X Commercial Rate (TXCR).

1	**Air-rights and Local Taxes**		(for calculating minimums)		
2	Total commercial land (estimated)	4,160,000	m^2	**1,028**	**acres**
3	Total commercial gov't revenue (US$)	$4,576,000			
4	**TXCR (Transit X Commercial Rate)**	$1.10	per m^2 (estimated)		
5	*TXCR is the yearly tax rate per land area. Calculation: total land area of commercial properties in the governmental region, divided by all the governmental income generated by those properties. The TXCR is used to calculate the minimum tax/fee.*	$11.84	per sf (estimated)		
6					
7	**Private Easement Fees**	For example			
8	**4% of gross revenue**	$53.83	per route-meter	**$16.42**	**per route-foot**
9	**Minimum per year**	$1.63	per route-meter	**$0.50**	**per route–foot**
10	**Transit X payment to Government**				
11	% of route on government easements	98%	estimated		
12	**Total air-rights and local taxes**	**$16,020,835**	per year		
13	per resident	$228			
14	with a minimum of	$98,890	per year		
15					
16	**Other financial benefits to Government**				
17	Less road maintenance from lower VMT				
18	Public land made available from less parking and lanes				
19	Reduced emergency and police services for road-related incidents				
20	Less investment needed in road-based infrastructure (charging stations, signals, BRT, etc)				

Footprint calculations for minimum fee

Yearly fees and taxes



1	**Footprint Calculations**	Metric		Imperial	
2	Track width	0.30	m	11.8	inches
3	Track height	0.60	m	23.6	inches
4	Post diameter	0.3	m	11.8	inches
5	Post cross section	0.07	m^2	0.8	sf
6	Stop landing area	3.75	m^2	40.4	sf
7	…width	1.5	m	59.1	inches
8	…length	2.5	m	98.4	inches
9	Ramp length	21	m	68.9	feet
10	Typical Span	23	m	75.5	feet
11	Number of posts per unit length	43.5	poles per km	70.0	poles per mile
12	Post height	6	m	19.7	feet
13					
14	**Single track**	1022.1	m^2	10998	sf
15	…Area of Side Silhouette	678.3	m^2	7298	sf
16	…Area of Top Silhouette	313.1	m^2	3369	sf
17	…Impediment Area (adjusted)	30.7	m^2	331	sf
18					
19	**Dual track**	1322.1	m^2	14226	sf
20	…Area of Side Silhouette	678.3	m^2	7298	sf
21	…Area of Top Silhouette	613.1	m^2	6597	sf
22	…Impediment Area (adjusted)	30.7	m^2	331	sf
23					
24	**Stop**	82.1	m^2	883	sf
25	…Area of Side Silhouette	25.2	m^2	271	sf
26	…Area of Top Silhouette	19.4	m^2	208	sf
27	…Impediment Area (adjusted)	37.5	m^2	404	sf
28					
29	Stops with dedicated landing areas	2	stops per km	3.2	stops per mile
30	% of dual track	100%			
31					
32	**Average area per unit length**	1,486	m^2 per route-km	**25,793**	**sf per route–mile**
33					
34	**Contract values**				
35	% gross revenue for government on private prop.	1%			
36	% gross revenue for private easement	4%			
37	% gross revenue for government easement	5%			
38	Impediment Factor	10			

Fair Fare Formula

Summary	The average commute would be 3.5 times faster saving each commuter 295 hours per year.* **At 0.39 USD per mile, a typical commute on Transit X is 17% less than public transit and 74% less than a Taxi.***

All prices in USD		Trip Length: 1 mile	6 mile	25 mile
Transit X		**0.48** **to 0.80** 2 min., 3.6x faster	**2.38** **to 3.98** 8 min., 3.6x faster	**9.12** **to 15.55** 33 min., 3.4x faster
Public transit average		**2.69**	**4.28**	**6.28**
Common public modes	**Taxi**	**3.73** 2 to 6 minutes	**16.26** 8 to 30 minutes	**63.25** 30 to 120 minutes
	Uber/Lyft	**2.84** 2 to 6 minutes	**11.71** 8 to 30 minutes	**44.96** 30 to 120 minutes
	Public Bus	**2.17** 3 to 12 minutes	**2.17** 15 to 60 minutes	**3.32** 60 to 240 minutes
	Train	**3.25** 2 to 12 minutes	**3.83** 8 to 60 minutes	**6.00** 30 to 240 minutes
Personal car		**3.12** 2 to 6 minutes	**9.82** 8 to 30 minutes	**34.94** 30 to 120 minutes

	Avg. Speed	Low Speed	High speed				Min Dist	Max Dist.	Time cost	Mode share 6%	70%	24%
Travel mode	km/h	km/h	km/h	Base	Includes km	Over per-km	km	km	per min	2	10	40
Taxi	30	20	80	2.17	1	1.08	0.5	100	0.96	5%	4%	1%
Uber/Lyft	30	20	80	1.73	1	0.87	0.5	100	0.48	10%	10%	2%
Public Bus	15	10	40	2.17	20	0.06	0.5	50	0	50%	50%	40%
Train	30	10	80	3.25	2	0.07	2	100	0	35%	36%	57%
Transit X	72	72	72	0	0	0.24	0.1	50	0	-	-	-
Personal car	30	20	80	1.45	0	0.72	0.1	400	0.23	-	-	-

* All numbers on mode shares, speeds, and costs are rough estimates..

Base fares are set for first 5 years, then adjusted by formula. A 20% discount on a shared pod and a 40% discount on a shared compartment. Trips are discounted proportional to their length reaching a maximum of a 40% discount on a 500 km trip. No congestion–based pricing. Fares are proportional to the median income of the area and inversely proportional to per capita use, so the more use of Transit X, the lower the base fare up a to 50% discount. The amount of market–rate fares must be less than the amount of discounted fares. Transit X Fair Fare Formula and Fair Freight Formula is universal and applies to all regions and all times.

Fair Fare Formula

Fare rates are updated annually using this formula

	Name	Value	Units	Description of the value or model input
1	GlobalIncome	10,000	USD	Global median household income. Updated annually based on most recent standard published data.
2	AllTravel	23,000	km	Travel distance per household per year on any mode for trips under 1600 km. A global constant
3	PercentIncomeForTransport	20%		% of median household income for all transportation under 1600 km trips. A global constant.
4	GlobalRate	0.09	USD/km	Global rate: **GlobalIncome * PercentIncomeForTransport / AllTravel**
5	IncomeFirst	$55,000	USD	Median household income at first stop (per person per day). External input. Based on reliable public data source updated annually.
6	IncomeDest	$82,500	USD	Median household income at destination per trip. External input. Based on reliable public data updated annually.
7	RegionalRate	0.48	USD/km	Regional rate based on median income: **MedianIncomeFirst * PercentIncomeForTransport / AllTravel**
8	UnderIncomeRate	0.00	USD/km	Under global income adjustment: **if (RegionalRate < GlobalRate, GlobalRate - RegionalRate, 0)**
9	NominalRate	0.48	USD/km	Nominal rate: **RegionalRate + UnderIncomeRate**
10	RegionalFactor	1.00		Regional Fare Factor. Negotiated upfront to make network financially viable.
11	AdjustedRate	0.48	USD/km	Regional adjusted rate: **NominalRate * RegionalFactor**
13	Population	70,350		Population in region. Updated annually based on trusted public data source.
12	UsageMaxDiscount	50%		Fare Discount when Transit X travel per household equals AllTravel. Global constant.
14	PassengerTravel	518,923,820	km	Total passenger distance traveled previous calendar year. Based on expected mode share for first 3 years. Based on actual passenger trips. Audited.
15	ModeShare	32%		Percent of Total Travel Per Capita on Transit X: **PassengerTravel / (Population x AllTravel)**
16	BaseRate	**0.40**	USD/km	**Base rate for single-passenger pod (without discounts)** **(1 - UsageMaxDiscount x min(1,ModeShare)) x AdjustedRate**
17	SpecialRateFactor	2.20		Rate factor for water crossings or high-speed links. Global constant.
18	SpecialBaseRate	0.88	USD/km	Base rate for high-speed travel or water crossings: **BaseRate * SpecialRateFactor**
19	DistanceDiscount	40%		Distance discount at max distance. Global constant.
20	MaxDistanceDiscount	500	km	Max distance discount. Global constant.
21	DistanceDiscountPerKm	0.000321	USD/km	Discount amount per km: **BaseRate x DistanceDiscount / MaxDistanceDiscount**
22	SeniorDiscount	20%		Senior discount set according to local regulations
23	StudentDiscount	20%		Student discount set according to local regulations
	DisabilityDiscount	20%		Disability discount set according to local regulations
24	DiscountBaseRate	**0.32**	**USD/km**	**Discounted base rate: BaseRate x (1 - SeniorDiscount)**
25	SharedPodDiscount	20%		Discount for a shared pod. Set by Transit X per year. 15% minimum and 30% maximum. Maximum yearly change is one percentage point.
26	SharedPodRate	**0.32**	**USD/km**	**Rate for a shared pod: BaseRate x (1 - SharedPodDiscount)**
27	SharedCompartmentDiscount	40%		Discount for shared compartment. Set by Transit X per year. 25% minimum and 40% maximum. Maximum yearly change is one percentage point.
28	SharedCompartmentRate	**0.24**	**USD/km**	**Rate for shared compartment** **BaseRate x (1 - SharedCompartmentDiscount)**
29	SingleOccupancyMaxDistance	0.27	**USD/km**	Rate for 500 km in single–passenger pod.
30	Senior + SharedCompartment Rate	0.12	USD/km	Rate for a Senior taking a 500 km trip in a shared compartment. **BaseRate x (1 - SeniorDiscountAmount) x (1 - SharedCompartmentDiscount) x (1 - MaxDistanceDiscount)**
31	50PctIncomeAtDest	25%		% Higher fare rate if Destination has 50% higher median income than First **(IncomeDest / IncomeFirst - 1) / 2**
32	DistanceBase	384,003,627	km	Passenger distance under base fare. Audited value from operational data.
33	PercentBase	74%		Percent of passenger distance under base fare: **DistanceBase / PassengerTravel**
34	BaseRevenue	126,375,183	USD	Annual revenue from all travel under base rate. Audited value from operational data.
35	AverageDiscount	18%		Average fare discount from Base Rate: **1 - (BaseRevenue / (DIstanceDase x BaseRate))**
36	MarketFactor	1.0		Market rate factor. Negotiated value for setting ratio of AverageDiscount
37	MarketRateCap	18%		Cap on passenger travel distance at market rate: **AverageDiscount x MarketFactor**
38	MarketTravelCap	69,300,481	km	Cap on passenger travel distance at market rate: **DistanceBase x MarketRateCap**

Project Summary

Project Description A fully-automated, solar-powered, micro-road network. A transportation utility.

Project type **Sustainable Transportation Infrastructure** Design, Build, Finance, Own, Operate, Maintain (DBFOOM)

Project equity US$72 million (30% of total)

Cost to Gov't $0

Structure Privately financed equity and debt

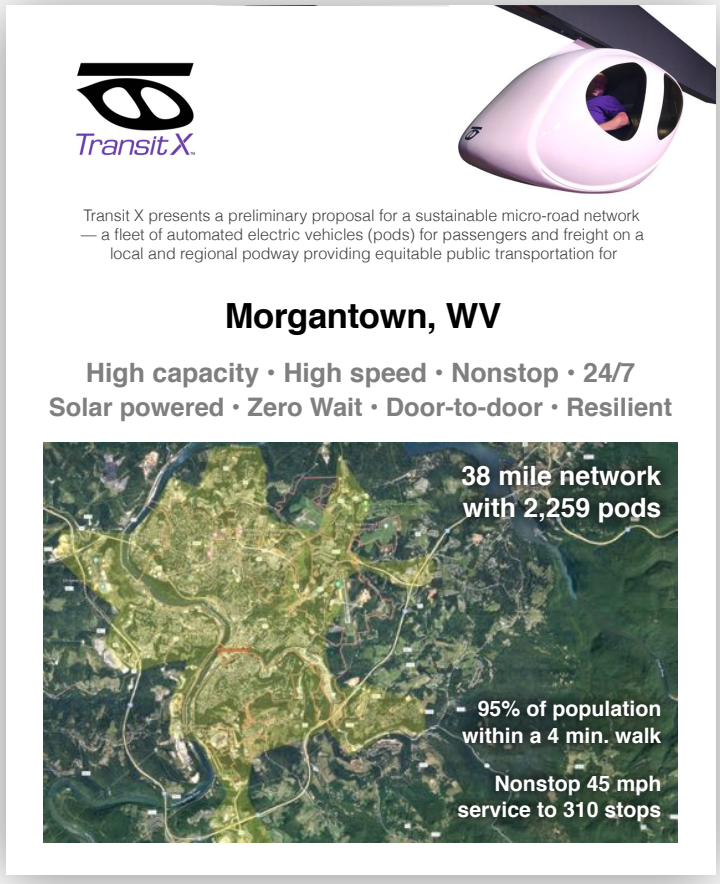
Debt term 10 years @ 7%

Equity terms A waterfall profit distribution per year with:
1. 90% until capital payback,
2. then 50% until Target% is reached
3. then 10%

Taxes & Fees $16,020,835 per year

Benefits to society and environment Extremely high

Estimated return 42% average IRR at 5 yrs
50% average IRR at 10 yrs



Financials

(US$ in millions)	Year 1	Total Years 1-12
Gross Revenues	**107**	**3,114**
Taxes and fees	**5**	**156**
Debt service	**$12**	**$129**

About Transit X

Transit X finances, designs, builds, and operates solar-electric micro-road public transit podways to supplant buses, trains, cars, and trucks. Transit X offers its service to governments and commercial developers. Maiden Flight was on Oct 29, 2018 and pilot projects started in 2018. First pilots will break ground in 2019 and begin operations in 2020. Transit X is a privately held company founded in 2015, based in Boston, Massachusetts.

ESG (Environmental, Social, Governance) Benefits

Clean Energy	yes	**Improve Resiliency**	yes
Energy security	yes	**Sustainable**	yes
Zero Emissions	yes	**Equitable**	yes
Zero GHG	yes	**Recyclable Materials**	yes
Lowers Pollution	yes	**Affordable Housing**	yes
Clean Water	yes	**Improved Health**	yes
Improved Safety	yes	**Economic Development**	yes
Add Green Space	yes	**Access to Food**	yes
Accessible	yes	**Add Quality Jobs**	yes

Status

	Now	Prior to close
Project financing	Available	Yes
Outdoor Test Track	Nov 2019	Yes
Rider-Revenue study	Preliminary	Yes
Environmental study	Per region	Yes
Air rights	Per project	Yes
Permitting	Per project	Yes
Safety certification	Per country	Yes
Construction firm	Per project	Yes
Design and major subs	Per project	Yes
Operations & Maint	Partners	Yes
Utility relocation	Per project	Agreements

General information available at transitx.com. Detailed information and references can be provided under appropriate non-disclosure/non-compete/non-circumvent agreements. Contact: Mike Stanley, CEO, Transit X, mike@transitx.com, 508-596-7024

12-year Pro Forma

Model Inputs and Assumptions

Route length (km)	60
Starting number of pods	745
Projected revenue growth	15%
Project Cost (Privately funded)	$240,126,181
% Debt financed	70%
Debt	$168,088,327
Equity	$72,037,854
Debt payment (per year)	$11,766,183

Travel per year per pod (km)	168,212
Revenue per vehicle-km (US$)	0.86
OPEX as % of project cost	5%
Debt Interest rate	7%
Debt term (yrs)	10
Profit share when below capital return	90%
Profit share when below Target IRR	50%
Profit share when above Target IRR	10%

Pro Forma

Years	0	1	2	3	4	5	6	7	8	9	10	11	12
Revenue	0	107,389,070	123,497,430	142,022,045	163,325,351	187,824,154	215,997,777	248,397,443	285,657,060	328,505,619	377,781,462	434,448,681	499,615,983
5% RoW+tax+fee	0%	5,369,453	6,174,872	7,101,102	8,166,268	9,391,208	10,799,889	12,419,872	14,282,853	16,425,281	18,889,073	21,722,434	24,980,799
Debt service	0	$11,766,183	$11,766,183	$11,766,183	$11,766,183	$11,766,183	$11,766,183	$11,766,183	$11,766,183	$11,766,183	$11,766,183	$11,766,183	$11,766,183
Investor share	0	63,380,171	25,559,647	18,299,420	19,906,495	21,754,631	23,879,988	26,324,148	29,134,933	32,367,335	36,084,597	40,359,449	45,275,528
Investor share (%)		90%	31%	19%	18%	17%	16%	15%	14%	14%	13%	13%	12%
Share / Orig Capital	0%	88%	35%	25%	28%	30%	33%	37%	40%	45%	50%	56%	63%
IRR to date	loss	(12%)	18%	30%	38%	42%	45%	47%	49%	49%	50%	50%	51%

Important Notices

The information contained in this document is not an offer to sell or a solicitation to buy any security. These materials and documents and information from which they are derived or which are referred to by or accessible from them may contain forward looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 2E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are forward looking statements and are subject to risks and uncertainties. Forward looking statements generally can be identified by the use of forward looking terminology such as "may," "will," "expect," "intend," "estimate," “project,” "anticipate," "believe" or "plan" or the negative thereof or variations thereon or similar terminology. Although Transit X believes that the expectations reflected in such forward looking statements are reasonable, it can give no assurance that such expectations will prove to be correct. All forward looking statements speak only as of the date made. Except as required by law, Transit X undertakes no obligation to update any forward looking statement to reflect events or circumstances after the date on which it is made or to reflect the occurrence of anticipated or unanticipated events or circumstances. These materials and documents and information from which they are derived or which are referred to by or accessible from them represent Transit X’s best estimate as to the allocation of the funding proceeds based upon its present business plan and financial condition. The costs and expenses to be incurred in pursuing the Company’s business plan cannot be predicted with certainty. There can be no assurance that unforeseen events will not occur or that the Company’s business plan will be achieved or that it will not be changed, and it is possible that the funding proceeds may be applied in a manner other than that described herein.

Jobs Report

1	Annual median household income (US$)	$55,000
2	**CAPEX**	
3	Average gross CAPEX salary (% of median HH)	125%
4	Average gross CAPEX salary	$68,750
5	% of CAPEX as salary	15%
6	Years of CAPEX	2
7	# of CAPEX jobs	262
8	% of jobs that are manufacturing vs. construction	75%
9	**Manufacturing jobs**	**196**
10	**Construction jobs**	**65**
11	**OPEX**	
12	Average gross OPEX salary (% of median HH)	115%
13	Average gross OPEX salary	$63,250
14	% of OPEX as salary	30%
15	**Operations and Maintenance jobs**	**57**