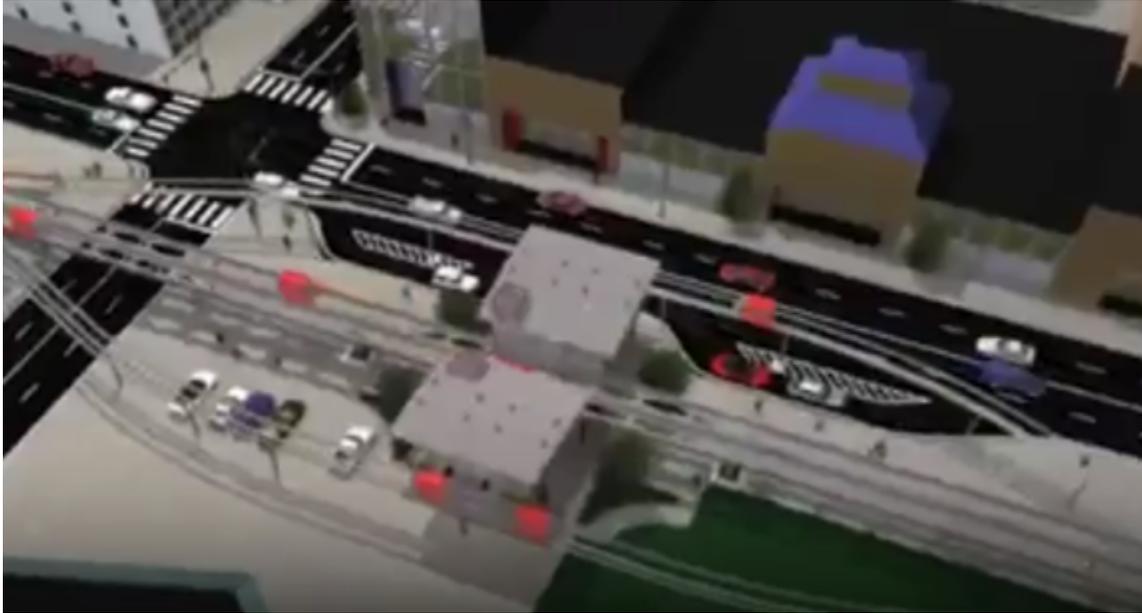


Bingham Research Labs

Evaluation of \$10 Billion National Experiment in Six Smart Infrastructures



[\(Click here to animate\)](#)

This is a proposal on how we can collaborate with the City of Denver and State of Colorado to allocate uses of the \$3 Million grant request to the Congressional T&I Subcommittee. We suggest three parts with 50% or \$1.5 Million be spent in the following ways to better understand the economics that are involved, one third or \$1 million be spent on a Public Discussion and the final one sixth or \$500,000 be allocated to a partnership with the City and State of Colorado. Here are proposed uses for the first \$1,500,000.

1. Engage Bank of America and Merrill Lynch or equivalent team to manage the evaluation process. They contract specific parts to regional expertise with companies that specialize in development costs, spreadsheet analysis and Financial Models. They could solicit RFPs or even turn it into a competition.
2. We would like to recruit the American Society of Civil Engineers, CH2M Hill, Parsons Brinkerhoff Engineers, United Infrastructure, Grant Thornton LLP, KPMG, PricewaterhouseCoopers, Deloitte, and others with a \$100,000 Request for Proposals.

3. Bingham Labs has many years of studying costs and revenues that offer useful formats for what we need to know. Here is an example of Costing categories for the guideway and stations.
4. The information we seek is only intended to give us a clearer understanding of the economic feasibility and not yet the kind of numbers ready for offering Revenue Bonds. Here is an example of the templates we used in the past to study cash flow for the I-70 Mountain corridor
5. The \$3 Mil Evaluation will build a small AI Data Base for these 3 Studies and make them available for Free to any State Agency that wants them.

Skyways One Mile Cost Categories	\$ Estimate	
Technology Engineering and Software		
Planning at__% of Construction		
Guideway engineering at__% of Construction		
Conc Guideway 75' Beams at _____ each x 2		
Steel Roadbed track, if any		
Columns and footings at every 75 feet		
Crossbeams every 75' feet		
Shipping to the job site at 25 mi max		
Erection of sections at every 75 feet		
Electric power Distribution		
Control Systems		
Typical 2 bay stations		
Maintenance facilities % share		
Passenger Vehicles: assumes 2,94 cars to start		
Prototype automated cargo vehicles for breakeven		
Administration Mgmt., legal, CPA, travel, office		
Working Capital and Contingency		
Per mile Cost Sketch for Modeling purposes		

I-70 Cash Flow Proforma						
Category	CONSTRUCTION		OPERATION			
REVENUES	fund/constr	constr/test	yr-3	yr-4	yr-5	
50% tourist ridership 10,000 p/dx4%p/y inc) (mils)						
rountrip fare \$35 x 4%p/y inc						
50% Local ridership (10,000p/d x 4%p/y inc)						
rountrip fare \$20 x 4%p/y Inc						
Cargo at 1/2 Local ridership						
Advertising at 1/4 local ridership						
GROSS REVENUES						
Operating Costs @ _____ %						
Total Costs & Expenses						
Taxable Income						

Ridership

Starting at 18% of capacity for breakeven the ridership will be calculated for both subscribers and tourism/local mileage fees. The annual growth will be estimated at inflation.

Pricing

It would be difficult to establish a believable Price for what we know today so lets arbitrarily set a price for leg 4 of \$30 for the entire 130 miles (or \$25 p/m) from end to end and study what assumptions are necessary to achieve it.

Mileage

Same deal set and conclusion and see what it takes to defend it say: 10,000 slots x 10 hours x \$.25 = \$85,800 pd

Revenues

The breakeven will calculate the number of revenues required and a forecast will be made for the expected amount of revenue by the 5th year and the attainable amount of revenue by the 10th year, 20th and 30th years from completion.

America grew by nearly 60 million people in the past 25 years and will probably grow by more in the next 25 years to 2050. We are going to put these people on top of the existing cities with all of their stress such as water depletion, frail age of electric grid, booming traffic congestion, growing automated delivery, climate crisis and booming AI industry's needs. We can spread them out and give more room to everyone with smart infrastructure

Cars needed

The number of vehicles to start will be calculated by dividing vehicles per mile 5280 feet divided by 4 slots per vehicle (80feet) = 66 cars per mile x 210 miles = room for 13,860 cars. At breakeven, the capacity used is 18% or about 2,494 cars to start.

Stations

Total Stations is 45 with 25 towns, 15 spurs and 5 maintenance yards.

Security

Each town will have one person at their station for security and passenger assistance from 9am to 9pm

Operating Costs

One of the largest unknowns is the costs to operates including: power, overhead, security, maintenance, replacement, admin and Insurance

The Public Conversation

About evaluating the costs and benefits of Smart Infrastructures



Need Sponsors

“If Climate Change threatens us all, shouldn’t [everyone be talking about it?](#)” This is an outline of a \$1 million Colorado AI Experiment in Public Conversations and political campaigns. Its purpose is to find consensus in economic development. There is growing clamor for a high-Speed National Transportation effort. Bingham Labs has applied for a \$3 million request to the Congressional T&I Subcommittee to evaluate our six smart infrastructures as a starting point and not a proposed solution. In addition, we can be looking for sponsors to spread the awareness by expanding our public conversation to include multiple sponsors. This sponsor should be someone that has the resources and computer team to establish a database needed to grow the conversation. The sponsor will probably be a stakeholder in the larger picture. The reward for such a sponsor is the data collection, name recognition and a better understanding of what the public wants as infrastructure. How do the people involved in climate change see tomorrow's infrastructure and these new smart technologies? It will be a big prize for the right company. Tomorrow's infrastructure will require a massive collaboration that does many different things to serve the public. Climate change needs a bigger response and the best way to do that is to show ways on making money like processing Carbon into useful products and using Oasis Machines for fire prevention, building a smart-grid, and starting AI factories.

Mission

A public discussion on how to best deploy a \$10 Billion National Experiment and get the most impact for Climate Change. The earlier the funding a \$1 Million startup Conversation, the greater impact it will have on the next election. Once started, hopefully additional funding will come in and grow into a sustainable voice

for new revenue producing infrastructure services. Grant capital or Even Crowdfunding can pay in gradually if desirable:

\$25,000 earnest money for 30 days to agree on agenda

\$75,000 build team & rent office in 3rd month

\$100,000 for the next 11 months

Use of Funds

	90,000		Social media	10,250
Administration:			TV marketing	47,500
Illustrator.	90,000		AI Video Production	78,500
Librarian	36,000		animation	24,000
Consultants:	54,000		advertising	40,000
AI researchers	30,500		conferencing	33,000
AI writers	61,000		travel	58,500
CPA	16,500		Insurance	3,950
Legal	29,500		Hospitality	
Rent	17,000		Fees at 2%	22,500
Subscriptions	6,300		Sub Totals	<u>849,000</u>
Web Site (2)	57,500		Unallocated	151,000
Cell Phones (5)	14,950			
Computers	27,500			

Operations of the Public Discussion - Grows over time - Free to the user

First Quarter: Engage a team to handle the conversation and find an office to house them. Buy the core tech needed and install. The Conversation starts with feeding topics to Social media, direct mail, ads on streaming TV and news outlets weekly. Then we harvest the responses for the best ideas. Integrate these into a new web site shared with City and give to AI to look for consensus. Then start over with a new topic each Monday. Store all responses on the cloud, make them searchable by AI.

Second Quarter: Expand team with another writer, researcher, animator, and video producer. Then expand email and advertise (Free Use) on Internet TV and social media marketing. Start podcasting among the subscribers and train for a weekly event.

Third Quarter: Full team in place and rehearsals are over. Go regional and expand the conversation into new areas. Produce a weekly one-hour podcast and video conference in the afternoon with 4 hours to prep and 2 hours afterwards to harvest the contacts

and info. Viewers can join with an email link. Mornings are for internal needs, repairs, web site building, and team meetings.

Fourth Quarter: Start marketing to advertisers for funding to continue the conversation. Propose an extension to sponsor and or an expansion capital program. Prep for the next 12 months. Find larger facilities

Deliverables

Mondays: an AI presentations of the week's topic using one of 3 formats:

Multiple talking heads: <https://www.lloydgoff.com/videos/5112025.mp4>

(This video is not finished, and it will take a while to do so. The link should work in a week or two)

If the topic is about financial models, we will use Ronald as the AI presenter. Click here for an example- <https://lloydgoff.com/solaroasis/>



- If the topic is about any of the 8 slideshows, we use Bob as our AI presenter for some discussion of the entire 210-mile corridor but focused on legs 1 and 2 from Downtown to Interstate -70 and on to Golden. Example <https://www.lloydgoff.com/i-70corridornarration.mp4>

Wednesdays: we create a podcast using Live speakers and AI presenters for 1 or 2 hours per Wednesday. We record all the sessions and make them available on the Cloud.

Fridays: all responses, AI presentations, videos, and news must be sent to the Dashboard for inclusion in the Library. Responses will (have having their own Button) be available for discussion. AI will be trained to look for consensus.



Who should Participate? The Conversation should be free to the viewer

* The development people who can make money from this water are the most obvious target such as:

- Software
- Car manufacturing
- Data Center developers
- User travel management
- Construction companies, cement companies
- AI engineers
- fiber optics companies, telcos and media
- Farmers and conservation Assoc

* Politicians should join to create the legal framework for funding and air rights

- Senators representing opportunities in Washington
- House of Representatives for their constituents

State governments providing ROW, Authority, air rights regulation

25 Mayors should join to see what is coming their way and how to manage the funding

* The financial community should participate to learn how to fund the routes and create a new Digital Currency asset class:

- Crypto companies
- Venture capital,

equity investors
Wall Street
insurance
pension funds

* University professors and students who see a bright future in engineering, planning, architecture, development, software, tele-communications, media

* Professional Development Services should participate such as:

lawyers for Public Private Partnerships, easement and funding
Accountants, bankers
consultants for surveying, wetlands, soils, traffic
Inventors needed for compatible technologies
Scientists needed for impacts on climate change

* Future users like

the young,
poor,
Military,
tourism
elderly

Research Needed- The conversation can publish a list of research topics for collaboration in social media and in video conferencing. A \$5 Million start up lab is planned for investment funding in smart infrastructure technology. Suitable topics that can add depth to the \$10 Billion Experiment are:

Initial Topics

1. How should the pricing of air-derived water be regulated?
2. Should the partnership issue air certificates for lease royalties, surveys, etc., similar to underground oil industry practices?
3. Should the city establish one unified agency or six separate departments, each with its own leadership?
4. Should the partnership be subject to taxation?
5. Should the initiative remain under economic development, transition to private enterprise, form a corporation, or become a fully public agency?
6. Should all subscribers undergo a rigorous background check before approval?
7. Will transit stations require additional security beyond AI-monitored cameras?
8. Should our primary goal be affordability or seamless integrated travel?
9. How many jobs will be generated through both construction and ongoing operations?
10. Can we develop a more precise estimate of the broader ripple effect?
11. What performance benchmarks should the Oasis machine meet, and how should its water be priced?

12. Which companies are currently leading efforts in air capture technology?
13. What commercial applications exist for captured carbon?
14. Which research and development firms are working on air-to-water conversion?
15. How many data streams can a single fiber optic cable support through multiplexing?
16. Which companies are innovating in the field of wireless transmission?
17. What are the current shipping costs per cubic foot for key materials?
18. What is the minimum safe distance between fiber optic pipes and electricity-carrying conduits?

Survey Topics -22 Topics for discussion in the Conversation

1. What makes this initiative so crucial right now?
2. Is our planet facing an emergency that demands immediate action?
3. Can a \$10 billion investment truly fuel a new economic revolution?
4. How will \$10 billion impact climate change—will it be a game-changer?
5. Is \$10 billion enough to support future economic expansion?
6. How much could a \$10 billion investment reduce carbon emissions?
7. Would integrating driverless cars into ground transit systems be feasible—and who foots the bill?
8. Can cargo, fiber, and energy revenue streams significantly boost overall profitability?
9. Will this transit system attract enough riders—who will use it, and can it really replace cars?
10. What security measures should be in place at transit stations to ensure passenger safety?
11. How can transportation systems safeguard vehicles against viral outbreaks?
12. Could 500,000 users realistically commit to \$100 monthly subscriptions?
13. Should a new digital currency asset class be introduced, and what benefits would it bring?
14. Which regions should be prioritized for initial development?
15. Why is it important for states to maintain ownership of this project?
16. How many new jobs could be generated by this initiative?
17. What ripple effects might this project create across industries and communities?
18. Does the government have the determination to make this vision a reality?
19. What are the potential drawbacks and risks of moving forward with this plan?
20. Should individual towns decide on creating special districts, or should there be a unified approach?
21. What role should the federal government play in this effort?
22. What should the ballot measure include to gain voter approval?

Responses

Like modern day surveys, the responses will gauge opinions we will convert to a range of numbers such as low is 2, medium is 5 and high is 8. This will allow the AI to find a numerical consensus.