Final Draft

Reedley Business Plan FINAL t101109

City of Reedley

Advanced Technology Transit

Test Site Facility

Business Plan

Presented to

Fresno Council of Governments:

Transportation Technical Committee

Policy Advisory Committee

Central Transit, Associates

Sustainable Land-use / New Technology Transit

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To the Fresno Council of Governments: Transportation Technical Committee
Policy Advisory Committee

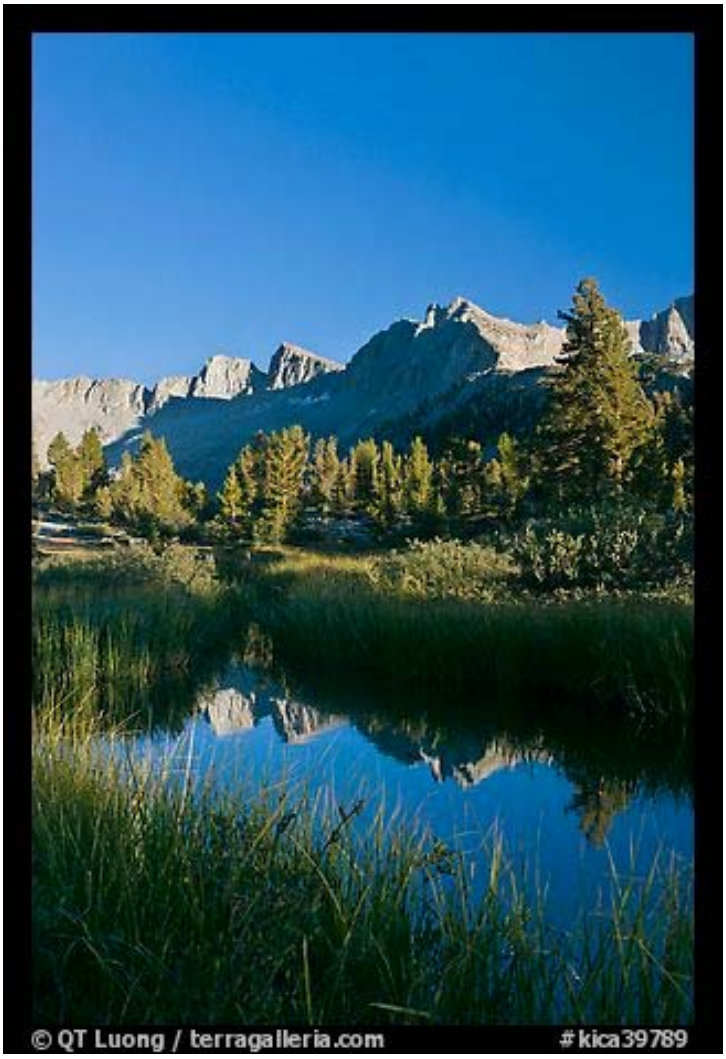
This is a Business Plan showing profitability to Fresno County and the City of Reedley for building a New Technology Transit, Three Phase project.

The project is funded with a portion of the Measure C New Technology Transit Reserve Fund for a New Technology Transit Test Facility in the City of Reedley. This Business Plan outlines how economic prosperity is found by initiating a New Technology Transit Test Facility capable of ultimately growing into a new technology transit system.

The New Technology Transit Test Facility is Phase One of a Three Phase project. Phase Two extends the test facility to a municipal demonstration site utilizing Reedley's 2 ½ mile rail corridor; connecting Reedley's industrial area to Reedley College. At the successful conclusion (public use certification) of the demonstration site, the Phase Two corridor will be open for public use. The Third and final Phase connects this system to other communities along the corridor and into the City of Fresno. The Third Phase can serve Fresno County municipalities as a feeder system for the State proposed High Speed Rail.

The New Technology Transit Fund of Measure C was established to have a PRT/GRT (Personal Rapid Transit / Group Rapid Transit) presence in Fresno County. These new technology transit systems fit into environmentally sustainable urban growth by using clean advanced transit technology for smart transit oriented land use development, which provides the modern convenience of direct and on-demand destination capability at a relative low cost; compared to the overall expense of other forms of transportation.

The capital required for the test facility is estimated at $12,000,000. This is a portion of the available $36million Measure C New Technology Transit Fund covering the cost of building the 36 month Phase One project.



Market opportunity

Transportation is the foundation of land use and all urban growth. The automobile is unsustainable; and even though most towns in Fresno County were established as a train stations, each municipality now maintains an automobile centric land use design. To reach the new environmental guidelines of California's AB32 and its more stringent mandates of SB375 every California city must find an adequate environmental resolution in their transportation plan to conform with the sustainable communities strategies.

Today, the train has been removed as the source of goods and pedestrian movement in Fresno's smaller communities, the transit systems were removed in the 1930s. The original transit oriented design of these townships has been forgotten. Those township designs were originated to efficiently carry people and interact with large congregations of pedestrian traffic. Current land-use growth has been manipulated away from its original areas of high concentrated commerce to automobile centric which eliminates pedestrians as the central focus of land-use functionality. This modern segment of land-use design is based on the automobile. A culture based on an unsustainable component as its fundamental foundation can not withstand constant growth. The automobile is environmentally, economically and socially unsustainable.

In making the case that the automobile is unsustainable economically: look back to 2007 when the economy fell into collapse. The fragile housing market snapped with the rise in oil prices over a six month span from $80 per barrel to $140 per barrel and the consequence saw pump prices rise from $2 per gallon to over $3.50 per gallon. People on a tight budget couldn't afford the additional $20 per tank; some people had to make the choice between paying bills or eating and getting to work. Socially, the automobile has created social isolationism of single occupancy operated vehicles. Environmentally, all one has to do is to look at the sky.

Since the 1930's, the growth of Western civilization has altered its original transit oriented developmental design to what it is today: a pattern of urban sprawl based on the unsustainable automobile. Environmental, economic and even social revitalization must include a sustainable mobility component. The New Technology Transit industry is this component. Reedley can capture this incredible opportunity without spending a dime of its budgetary funds.

The New Technology Transit Fund within Measure C has allocated $36million over the next 20 years towards this industry. New Technology Transit goes further than many people would assume.

There are numerous benefits to a New Technology Transit system:

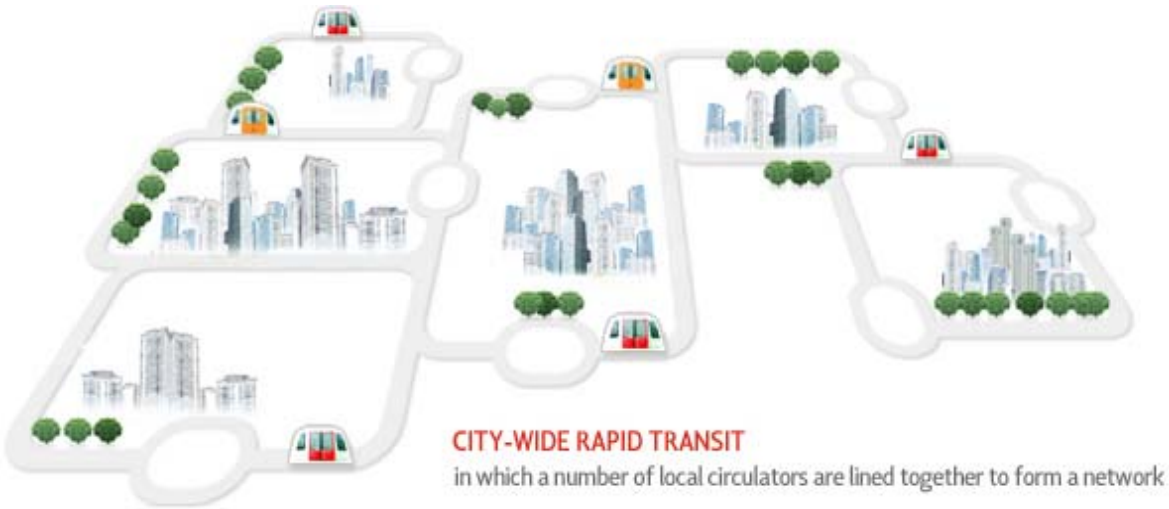
- User-on-demand and direct-to-destination
- Computer operated, reducing operational expenses and increases efficiency
- Lightweight vehicles lower infrastructure costs
- New Technology Transit system can be overlaid with solar panels to generate their own power source
- Existing Rail Rights-of-Ways – by using existing Rail Rights-of-Ways, expensive land acquiring capital expenses are eliminated
- Lightweight vehicles lowers infrastructure costs and operational expenses
- Convenient transit increases productivity of Valley residents by reducing time and stress of commute travel time
- Greatly reduces dangerous toxic air quality levels in the San Joaquin Valley
- Unaffected by increasing gas prices and dwindling hydrocarbon deposits
- Creates an equitable alternative to the inadequate transportation options
- Worldwide recognition for urban transit solution
- Lower stress levels for system passengers
- Higher quality of life for Valley residents
- More uniform real estate development
- Quicker commute and travel times
- Reduction of auto accidents
- No traffic jams for users
- Less traffic congestion
- Creates jobs

Vision / Goals / Mission

The immediate goal of the test facility is to be a New Technology Transit industry incubator with a tie-in to the upper level educational entities. It is the vision of the test facility to spur growth with this technology into a manufacturing facility. The mission of the test facility is to provide a new transit technology hub of this emerging industry for the global marketplace.

The second phase will extend to a municipal New Technology Transit demonstration project. Phase Two utilizes the existing 2 ½ mile rail corridor in Reedley, connecting Reedley's industrial area to Reedley College. At the successful conclusion (public use certification) of the demonstration project, the corridor will be open for public use. The Third and final Phase implements the technology and connects the system to other municipalities along the corridor to the City of Fresno. The Third Phase can serve Fresno County municipalities as a feeder system for the State proposed High Speed Rail.

It is the vision of this project to see the New Technology Transit system grow into a Valley wide transit network merging with private sector development.



Business Strategy / Revenue Model

Project Strategy

This City of Reedley project builds a new technology transit test facility in the City of Reedley using the Measure C New Technology Transit Fund. The test facility provides a location and funds for a new technology transit company in having the opportunity to finalize development of this leading edge technology in the City of Reedley.

To initiate Measure C New Tech Funds, a municipality develops a plan to utilize the fund and propose that plan for approval from the TTC and the PAC: with support from COG staff. CTA will work with the City of Reedley and be the lead entity in administrating the project. As project administrators with the City of Reedley, CTA serves as the liaison in overview of project performance.

The test facility will be used to test and demonstrate a proof of system technology. This facility will also be used to build working vehicle prototypes for Phase One and Phase Two. The Phase Two demonstration project which will be along the existing 2 ½ mile ROW (Rights-of-Ways). The Third Phase is forecast as a manufacturing facility. The technology company, upon receiving public use certification will now be eligible to sell its technology and build throughout the world. These vehicles will need to be manufactured; and as an agreement with the COG funds, this agreement requires a manufacturing facility in Reedley. The first transit lines using this technology can be connecting Reedley to Fresno and intersecting communities, plus a network with the City of Fresno.

The advantage of bringing this Three Phase project to Reedley is multi-fold. By building a PRT test facility, it provides proof of technology and brings industry attention with manufacturing potential to Reedley. Rather than simply supplying the technology company a $12million grant, CTA recommends a trade with financial interest in the form of stock holdings or a percentage of future earnings. This investment ownership would then be fed back into the Measure C New Tech Fund to grow the fund upon the success of the transit technology project and profit from systems built throughout the world. Potentially, this is a vital piece of the proposal. Since the funds are being spent to profit the company by building this pilot project, the profitability should be shared by all entities making this project a success. This concept was used in Chicago for the Raytheon PRT project.

Another of the multi-fold advantages of building this project will be in the creation of jobs. Upon a successful testing facility it can lead to the building of a manufacturing plant in Reedley with the technology company; as a condition of using the Measure C funds for this project.

Utilizing the Measure C New Technology Fund presents an economic opportunity to capture this new industry for Fresno County and the City of Reedley. As the $12million is used, many of those dollars will stimulate the local economy by hiring local machine shops to produce the needed specialized equipment and fabrication. The money from the Measure C funds will predominantly stay local with much of the engineering, design and testing done in Reedley. This economic multiplier effect will enrich Reedley and Fresno County as the project grows.

The other advantage of this system is built into the nature of this advanced technology project by attracting worldwide visitor study; joining a collaborative effort from Reedley College and UC Merced for the business incubator and other opportunities.

In compiling a Business Plan, certain assumptions must be made. In this plan, it will be assumed the additional funding is made available through various entities and the system is completed.

Project Details

Phase One

Applied Levitation will open its 2nd research and development facility to test the full scale model at the new City of Reedley location. Beginning the project requires staffing and the typical routine in a new business venture.

CTA will be assisting the City of Reedley and Applied Levitation in this process and supporting the Three Phase project by securing additional funding. Real Estate acquisition for development of the test site facility is being assisted with efforts of the City of Reedley.

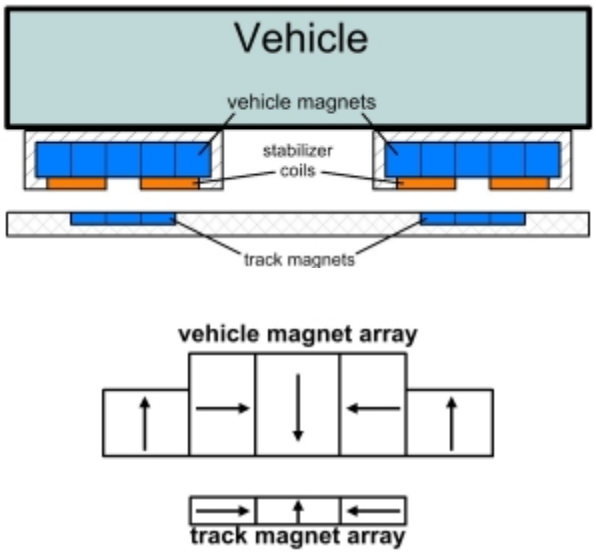
Project Specifications Phase One

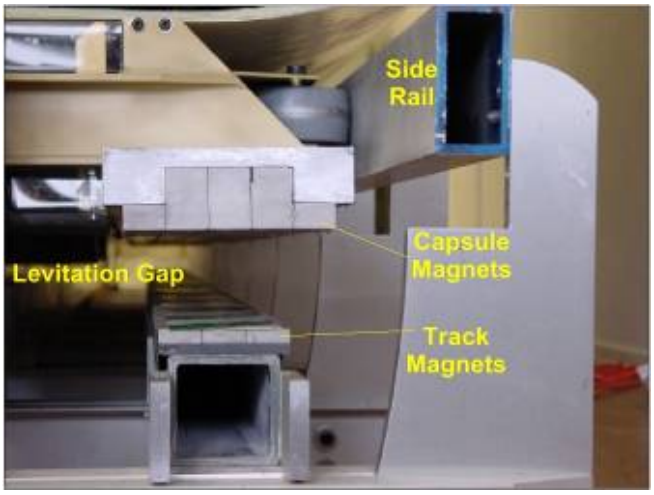
There were many options in obtaining the advanced PRT/GRT technology company selected for the test facility. The selection was narrowed to three candidates for the Reedley project: Applied Levitation, Magnamotion and SkyTran. The three companies were selected due to their qualifications of being a PRT system, maglev technology and having a passive switch.

Applied Levitation is the candidate of choice for the Reedley project due to the capability of their technology.

The test facility requires the technology company to build additional prototypes and provide a test track that will physically measure the automated vehicle system accuracy, test system switching and software.

Technology





Site Area Requirement

The following factors will determine cost and site location selection:

Real Estate - Test Facility

Warehouse 10,000 sq ft
- Machine shop
- Welding area
- Assembly
- Vehicle Test area
- Computer control area
- Lunch room
- Rest rooms

Office 3,000 sq ft
- Office area, separate and group
- Lobby
- Conference room
- Break room
- Rest rooms

Outdoor test area football field size area with ¼ mile loop

The outdoor area has several components. The test guideway comprises a ¼ mile loop with at least three test stations. This loop guideway has several elevations, from an at-grade portion to elevated. These elevation changes measure engineering designs and strengths.

Management

Oversight will be through the CTA group for the City of Reedley. Management and operations will be under Applied Levitation.

Applied Levitation LLC had its origins in Magtube Inc. where permanent magnet levitation technology was initially developed and tested on a full-scale prototype capsule. Since then Applied Levitation expanded its research and changed the name of the company to reflect the departure from a focus on underground freight transport. With funding from its partners LaunchPoint Technologies Inc. and Fastransit Inc., Applied Levitation finished the proof-of-concept phase of the electromagnetic stabilization technology which allows vehicles to levitate above a magnetic track without the need for side rails to control lateral position.

Jim Fiske, CEO

Jim Fiske entered the maglev technology field twelve years ago, and founded Magtube, Inc. in 2000. Prior to that, he was co-founder and VP of Advanced Development at Quad Design Technology, a provider of leading-edge computer-assisted engineering software; a principal architect of a mini-supercomputer designed to exploit ultra-high-speed gallium arsenide integrated circuits at Vitesse Electronics; and the technical director and

lead designer of high performance digital signal processing systems at Hughes Aircraft Company. He holds 6 patents. Currently, Mr. Fiske is adapting maglev technology to high capacity electrical energy storage and space launch systems, as well as transportation. He received his Electrical Engineering and Computer Science degree from the Massachusetts Institute of Technology in 1978.

Dr. Brad Paden, CTO/Director

Dr. Paden received his Ph.D. in Electrical Engineering from UC Berkeley in 1985 and is currently a Professor of Mechanical Engineering at the University of California, Santa Barbara with a joint appointment in the Electrical and Computer Engineering Department. He was the recipient of the 2001 IEEE Control Systems Society Technology Award and the 1993 Best Paper Award from the ASME Journal of Dynamic Systems, Measurement, and Control. Dr. Paden is a Fellow of the IEEE.

Brad has over 80 publications and 17 patents in the area of control and electromechanical systems. His research interests focus on nonlinear control theory and its application to electromechanical systems. Dr. Paden has consulted for industry on the design and control of magnetic bearings, and has served as an associate editor for the Journal of Robotic Systems. He was the lead electromechanical designer on a number of LaunchPoint projects including the StreamLiner mag-lev artificial heart.

Mike Ricci, Systems Engineer

Mike Ricci joined Launchpoint Technologies in 2001 to work on the Magtube project. He was the project engineer and led the technical team through 2001 and 2002 when many of the key SPM technologies were first developed. Mike managed the design, fabrication, and testing of a full-scale SPM prototype vehicle and track section. He was also responsible for the initial system design, dynamic analysis, and concept controller design for the SPM suspension system. Mike is presently splitting his time as the systems engineer for Launchpoint's maglev heart pump project, the Power Ring energy storage flywheel project, and the SPM levitation technology.

Prior to LaunchPoint, Mike worked as a mechanical engineer with Spectra F/X, a theme park engineering company, where he was Project Engineer on several very large custom systems with high cycle rates, intimate man-machine interfaces, and high human-safety concerns. Mike received a MS degree in Mechanical Engineering from UCSB (1993), specializing in control systems, and a BS degree in Mechanical Engineering from Caltech (1991), with a focus on electromechanical engineering and control systems. Mike is a licensed professional engineer (P.E.) in mechanical engineering.

Geoff Long, Project Engineer

Since joining LaunchPoint in early 2008, Geoff Long has demonstrated his product development skills by taking a maglev vehicle from concept through the development of a working small-scale prototype. Prior to coming to LaunchPoint, Geoff led several teams of multi-disciplined engineers through the product development process at Raytheon Company in El Segundo, California. Prior to working at Raytheon, Geoff developed

novel mobile robots at the University of Michigan Mobile Robotics Lab and consumer products at Acorn Product Development.

Geoff's experience spans the areas of electro-optical systems, multi-axis gimbals, high bandwidth line-of-sight stabilization mechanisms, reactionless mechanisms, fast optical element switching mechanisms and large deflection flexures. Geoff has worked on everything from spacecraft sensors to consumer products to military fire control systems of light armor vehicles. Geoff has been granted one US patent and has several patents pending. Geoff received a MS in Mechanical Engineering from the University of Michigan, Ann Arbor in 2000 and a BS in Mechanical Engineering from the University of California, Berkeley in 1997.

Use of Funds

BUSINESS PLAN PROJECTIONS
REEDLEY TEST FACILITY PROJECT

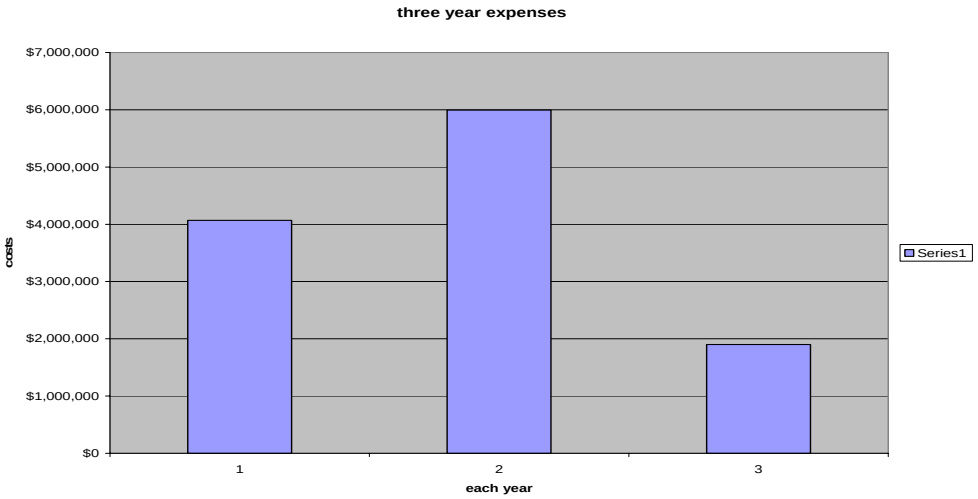
Pro-forma Financial Projection for the 3 years from 1/1/2011 through 12/31/13

P&L
Statement of Projected Operations for 3 years

There are significant financial assumptions underlying this projection.

This projection was prepared for the limited use of modeling the enterprise. Even if most of the assumptions relied upon in the projection are proven true, there will usually be differences between the projected and actual results because events and circumstances frequently do not occur as expected and those differences may be material.

In the likelihood the testing is completed prior to the allotted 36 month period the unused funds would not be drawn from the New Technology Fund, resulting in costs below the $12millon financial projection.



The financial projections are based on figures from Applied Levitation's research and development experience of previous work.

Budget and Overhead

REEDLEY TEST FACILITY PROJECT
Phase One Projected Operations for the 3 Years Ending December 31, 2013

	TOTAL	2011	2012	2013
Funding Projected				
Measure C New Technology Funds	$11,947,000	$4,068,000	$5,979,000	$1,900,000
Ridership revenue projected, Phase 1		$0	$0	$0
Total revenues projected	$11,947,000	$4,068,000	$5,979,000	$1,900,000
Project Costs Projected				
Project management	$1,496,000	$392,000	$671,000	$433,000
Vehicle development management	$472,000	$184,000	$262,000	$26,000
Systems engineering management	$434,000	$169,000	$241,000	$24,000
Chassis/frame Dev (development)	$554,000	$215,000	$308,000	$31,000
Propulsion dev	$415,000	$161,000	$231,000	$23,000
Lateral control dev	$643,000	$250,000	$357,000	$36,000
Vertical control dev	$643,000	$250,000	$357,000	$36,000
On-vehicle power generation/storage dev	$133,000	$52,000	$74,000	$7,000
Cabin, interior, seats, etc. dev	$384,000	$149,000	$213,000	$22,000
Vehicle level assembly, integration & test	$547,000	$213,000	$304,000	$30,000
Track development	$1,556,000	$605,000	$864,000	$87,000
System level assembly, integration & test	$311,000	$121,000	$173,000	$17,000
Infrastructure development	$497,000	$193,000	$276,000	$28,000
Office rent	$130,000	$43,200	$43,400	$43,400
Warehouse & test track rent	$396,000	$108,000	$144,000	$144,000
Office expense & supplies	$7,200	$1,200	$3,000	$3,000
Copy service and printing	$15,600	$3,600	$4,800	$7,200
Travel & lodging	$198,000	$48,000	$60,000	$90,000
Postage, FedExp & delivery	$5,400	$1,200	$1,800	$2,400
Telecommunications, ISP, DSL	$15,800	$3,800	$6,000	$6,000
Marketing & promotion	$54,000	$12,000	$12,000	$30,000
Automobile & vehicle expenses-local travel	$95,000	$16,000	$32,000	$47,000
Support staff salaries	$193,000	$32,000	$36,000	$125,000
Payroll burden, inc.w/c ins.	$280,000	$38,000	$87,000	$155,000
Miscellaneous	$42,000	$6,000	$12,000	$24,000
Insurance (equipment and personnel)	$60,000	$11,000	$16,000	$33,000
Legal, accounting & audit	$280,000	$30,000	$90,000	$160,000
Contingency reserve	$2,090,000	$760,000	$1,100,000	$230,000
Total Projected Project Costs	**$11,947,000**	**$4,068,000**	**$5,979,000**	**$1,900,000**
		-	-	-
Projected Net Income from Operations	$0	$0	$0	$0

Budget Specifications

It is conceivable that the Applied Levitation test could be completed in two years. The budget, however, is assembled to accommodate a three year time span. As shown, the test facility budget is projected with an approximate 40-50-10 yearly split as a percentage.

The project management budget projection is spread in an unequal split. This is due to increased CTA staffing in the third year for the purpose of ramping up for Phase Two and bringing in additional funds. The ramping up for Phase Two effects marketing and promotion, travel and lodging, automobile and vehicle expense, staff salaries, miscellaneous and payroll burden. The legal and accounting expense in the third year is due to the cost of a full auditing review for all project expenses.

Year One costs are primarily engineering design in the Santa Barbara facility while setting-up the Reedley test site.

Project Oversight

In its liaison position, CTA will have a full time project manager at the facility. Beyond the project manager, CTA will be active in securing additional funding for Phase Two and Three. In its fiduciary responsibility CTA will be accountable to the City of Reedley with an ongoing relationship regarding the project as well as providing monthly updated progress reports to the City of Reedley and the Fresno County Council of Governments (Transportation Technical Committee or Policy Advisory Committee).

Building the Three Phase Business Model

Phase One

The capital costs of building the Test Facility use assumptions based on standard research and development costs and Applied Levitation's previous experience.

First year costs are lower, primarily used for overhead with engineering and design personal, cost increases in year two with guideway infrastructure expense and operation testing.

Overall expenses are generalized as the following:

Design and engineering work
Legal work
Operational overhead
Equipment capital stock
Guideway and test station sites
Marketing
Management
Miscellaneous

Upon the completion of the Applied Levitation test, the facility should continue operating as a public or privatized testing site for maglev transit technology. This development can be with PRT, GRT, private freight applications or even high speed maglev technology.

From the work already performed by the Fresno Works project and the analysis of job qualifications needed for their proposed high speed rail maintenance yard project, our

search for qualified engineering personal, can be assisted in conjunction with Reedley College and other local educational institutions

Phase Two

Accurate costs of building Phase Two are unknowns at this time due to the engineering estimates found in the testing during Phase One. The general estimate to build the initial demonstration along the 2 ½ mile corridor would have to include a return guideway which means to total of 5 miles in guideway. At $10million per mile that cost alone would forecast the amount at $50million, additional overhead would increase costs.

Current government methodology would find the 2 ½ mile structure costs, as written in the Fresno COG PTIS for PRT development, at $30million to $35million per mile. The Applied Levitation approximate figure estimates are between $10million to $15million per mile. The goal in Phase One is to find the way of enabling cost per mile figures to attain a price below $10million per mile. $7million per mile is a conceivable target as the cost to build.

Phase Two requires substantial grant funding. In tracking such funding CTA has seen a pattern of new interested funding sources. The FTA (Federal Transit Administration) has funded a maglev project at Old Dominion University; the CEC (California Energy Commission) has ruled PRT eligible to apply in the $80million statewide allocation of annual CEC $80million grant funds. The US Department of Energy (DOE) has roughly the same goals as the CEC with larger annual grant availability. Locally the San Joaquin Valley Air Pollution Control District has set aside funding to support alternative transportation solutions. There are many other sources for possible funding including State funds for systems connectivity into the proposed HSR.

Phase Three

The economic value interpreted as a Return on Investment (ROI) of the $12million New Technology Transit Fund investment for Reedley project can be seen as profit as this project reaches Phase Three. Phase Three reaches into the development of a sustainable new technology transit network.

Sustainable mass transit is the foundational component of Transit Oriented Development (TOD) to meet the stringent requirements of SB375.

Value of Clean Transportation and Sustainable Land-Use

The consensus nationally amongst the leaders of the advanced transit industry is that the automobile has run its course. The resolution is in creating sustainable transportation alternatives funded through high-density mixed use Transit Oriented real estate development, using sustainable urban planning and infill redevelopment.

“Patterns of urban growth characteristic of post WWII North American development have created cities and regions that are centered upon and are dependent on the car to meet transportation needs. Located largely at the urban fringe, this pattern of suburban, or greenfield, development is typically dominated by housing-only enclaves consisting of single family homes with two-car garages and a hierarchical road system (with one way in and out). Here, land use functions are isolated (residential, commercial, employment), origins and destinations are farther apart, infrastructure design is oriented toward the automobile, and low population densities are not conducive to public transportation. With the automobile as the only realistic transportation mode for suburbanites in these sprawling communities, commuters are faced with increased driving distances and increased congestion. All told, this pattern of growth has resulted in deteriorating urban air quality and human health, increased emissions of greenhouse gases, limited transportation and housing choice, inefficient use of infrastructure, and communities that are less able to meet the needs of their residents."

Center for Clean Air Policy, "CCAP Transportation Guidebook, Part 1: Land Use, Transit & Travel Demand Management," page 7 www.ccap.org/guidebook

“Transit accessibility can raise property values in two somewhat different ways. First, it gives one location a relative advantage over other locations, attracting residential and commercial development that would otherwise occur elsewhere in the region. This is an economic transfer. Transit can also increase overall productivity by reducing total transportation costs (including costs to consumers, businesses and governments of for vehicles, parking and roads) and providing a catalyst for more clustered development patterns that provide economies of agglomeration, which can reduce the costs of providing public services and increase productivity due to improved accessibility and network effects (Coffey and Shearmur, 1997). Although these productivity benefits are difficult to quantify, they can be large: just a few percentage increase in property values, a few percentage reduction in automobile and parking costs, or few percentage increase in business productivity in a community can total hundreds of millions of dollars.

“These potential economic benefits from improved transit services raise intriguing prospects. Is it feasible that public transit systems could be partly funded by capturing a portion of the increased property values? This is consistent with the concept of land value taxation promoted by Henry George (Lincoln Institute).

“Many planners and economists, including Nobel laureate William Vickrey, suggest that cities could benefit by funding transit system development costs and a major portion of operating costs from land value capture, that is, by taxing a portion of the additional value of adjacent properties that result from transit accessibility.”

Reference: www.vtpi.org/smith.htm

Hundreds of land value studies reveal these same conclusions.

The University of Arkansas Community Design Center with Washington University in St. Louis won an American Institute of Architects Education Honor Award for its regional planning issue: light rail. Studios at both universities explored how light rail and associated transit-oriented development could ease traffic gridlock, spur downtown revitalization and check sprawl in Northwest Arkansas.

"If Northwest Arkansas is still relying on fossil fuels by 2020, that will be the death knell for further economic development. By then, business will go to those areas using renewable energy sources, because ultimately, that will be cheaper," said Stephen Luoni, director of the Community Design Center. Creative, cutting-edge businesses also factor in quality of life in their decision-making: *"People want affordable downtown housing, which transit-oriented development would foster. And they're tired of sitting in traffic,*" he said.

LA provides an excellent example of what sporadic and unplanned consequences of land use sprawl develops into.

Social isolationism, environmental damage and a devastated economy are the results of a culture whose foundation is unsustainable.

The California State government has gone to great lengths to legislate higher density real estate developments tied to transit. The privatization of mass transit is feasible with New Technology Transit. Combining New Technology Transit with infill real estate re-development along existing transportation corridors creates funding opportunities in capturing the fundamental intent of CA legislation pursuing CEQA recommendations.

The following is partial list of California laws regarding transit based development.

SB 2559, 1991 High Density Housing/Mass Transit Act of 1991

AB 3152, 1994 California land use law

AB 779 Transit Village Act, 2000

AB 2864, in 2000 is a Jobs-Housing Balance Improvement Program (JHBIP)

AB 1086, 2001 infill development

AB 1358, Complete Streets act of 2008

AB 32, 2006

SB 372, 2008

SB 375, 2008

California Health and Safety Code § 50500 50514.5.

California Government Code § 65080.1 65086.5.

California Government Code § 14030 14053.

The Transportation Development Act (TDA) of 2009 for public transportation funding

ROI for government funding in this project can be found with private sector participation from real estate development along newly created transit corridors throughout Fresno County with the implementation of this technology. Efforts by the State Legislators understand the importance of Transit Oriented Development and this newly developed transit technology allows this private sector participation.

Every business plan requires a break even point and a profitable exit strategy. COG can expect a ROI in Phase Three with tax increase revenues generated from private sector TOD real estate development as this project provides the necessary component to allow Sustainable Communities Strategies (SCS) land-use compliance of future urban growth.

With an agreement from Applied Levitation, Fresno County could receive a funding source to strengthen its Measure C New Technology Transit Fund with a similar agreement that the Regional Transportation Authority of Chicago and Raytheon had in the 1990s. Chicago's RTA contract with Raytheon (in a test development project) provided that it would receive 1.3% of any future sales revenues. A similar agreement could be negotiated with Applied Levitation as a form of future revenue generator to support further New Technology Transit development throughout Fresno County.

The strategy of return on investment for the public sector can be expected with a finished product. Phase One tests the technology, Phase Two enables public use. Phase Three allows large scale implementation of the new transit technology into a modern transit network. Phase Three of this sustainable transit system can provide the catalyst for high density transit real estate development and concentrations of commerce at each of the transit stations. Phase Three provides compliance to the stringent Sustainable Communities Strategies (SCS) required in SB375.

CTA examples of SCS Transit Oriented station site designs

The Applied Levitation technology is capable of meeting the demands of Fresno County's modern transportation needs. A complete transit network throughout Fresno

County could easily merge passengers to other transit systems or operate as a closed loop network.

Third Phase Financial Projections

In addition to providing a mass transit feeder network to the CA proposed HSR, the Three Phase New Technology Transit project offers additional economic profitability to the area. As a new source of transportation, this technology allows Transit Oriented Development (TOD). Quantifying the new real estate development tax base could be ascertained on a per square foot basis with each square foot generating a forecasted dollar amount per year. The economic multiplier for every transportation dollar not leaving the area to foreign oil is a net gain to local government tax revenues. At this present time the figures remain unknown but, with study, could be analyzed and presented as further proof to support this as a viable public transportation project.

As a comparison in discovering the cost of road building and the inherent long term maintenance expenses, a look at what the costs are in Reedley will reflect the overall expenditures throughout Fresno County.

REEDLEY CITY TO CITY COMMUTE PATTERNS

Commuting to Reedley

City of Residence	City of Work	Number of Workers
Clovis	Reedley	150
Dinuba	Reedley	395
Fresno	Reedley	485
Hanford	Reedley	45
Long Beach	Reedley	80
Madera	Reedley	20
Reedley	Reedley	2,270
Sanger	Reedley	120
Santa Ana	Reedley	20
Selma	Reedley	160
Visalia	Reedley	195
Total		3,940

Commuting from Reedley

City of Residence	City of Work	Number of Workers
Reedley	Bakersfield	15
Reedley	Clovis	85
Reedley	Corcoran	15
Reedley	Cupertino	45
Reedley	Dinuba	445
Reedley	Fresno	1,545
Reedley	Madera	20
Reedley	Porterville	80
Reedley	Reedley	2,270
Reedley	Sanger	180
Reedley	San Jose	15
Reedley	Selma	220
Reedley	Tulare	115
Reedley	Visalia	240
Total		5,290

Distance from Reedley to Fresno – 23 miles

Cost per mile to build Applied Levitation estimated @ $10million per mile. The target for the test and Phase Two demonstration site is to achieve $7million per mile to build the system.

At a farebox rate of 10cents per mile and the distance of 23 miles, the fare from Reedley to Fresno would be $2.30 per trip. An equivalent cost to a rider would be approximately 1.1 gallons of gasoline at today's cost of $3.00 per gallon (based at 20 mpg).

Providing there can be appropriate placing of commuters with convenient alternative workplace connectivity, a 100% transfer commuter ridership would capture 1,545 commuter riders per day. Granted that capturing 100% ridership is an unlikely accomplishment but, for the sake of making a point, a 100% ridership assumption is taken here.

$3,554 per direction each day would generate $7,107 per day five days per week for a weekly amount of $35,535. That weekly amount adds up to an annual total of $1,847,820.

The following chart does not account for the 485 commuters from Fresno to Reedley found in the above chart; or other communities, plus there will be other riders other than commuters.

CURRENT COMMUTE PATTERNS TO FRESNO

Ridership numbers

commute community	Number of commuters	miles traveled	farebox 10cents/mi	farebox revenue	both directions	5 days per wk
Reedley to Fresno	1,545	23	$2.30	$3,554	$7,107	$35,535
Parlier to Fresno	820	17	$1.70	$1,394	$2,788	$13,940
Fowler to Fresno	444	9	$0.90	$400	$799	$3,996
Selma to Fresno	1,591	15	$1.50	$2,387	$4,773	$23,865
Kingsburg to Fresno	712	19	$1.90	$1,353	$2,706	$13,528
Totals	2,257	42		$4,906	$9,813	$49,063
Annual Totals						$2,551,276

Let's take a look at the current roads to Reedley: Manning Ave is a four lane road from Highway 99 to Reedley. Using a one hundred year life expectancy of the maglev line, a one hundred year comparison finds the following: the Manning Avenue from Highway 99 to Reedley section of roadway is built to support heavy traffic and is estimated to cost $1.5million per mile per lane. As such this four lane road costs $6million per mile. Its life expectancy is 10 years, needing resurfacing at a minimum of every 15 years at a cost exceeding $1million per mile. This 10 mile section would then accrue a cost of $10million every 15 years. Over 100 years, this road will need to be rebuilt 6 times causing that expense to amount to $60million, in addition to its initial $60millon cost for a total of $120 million.

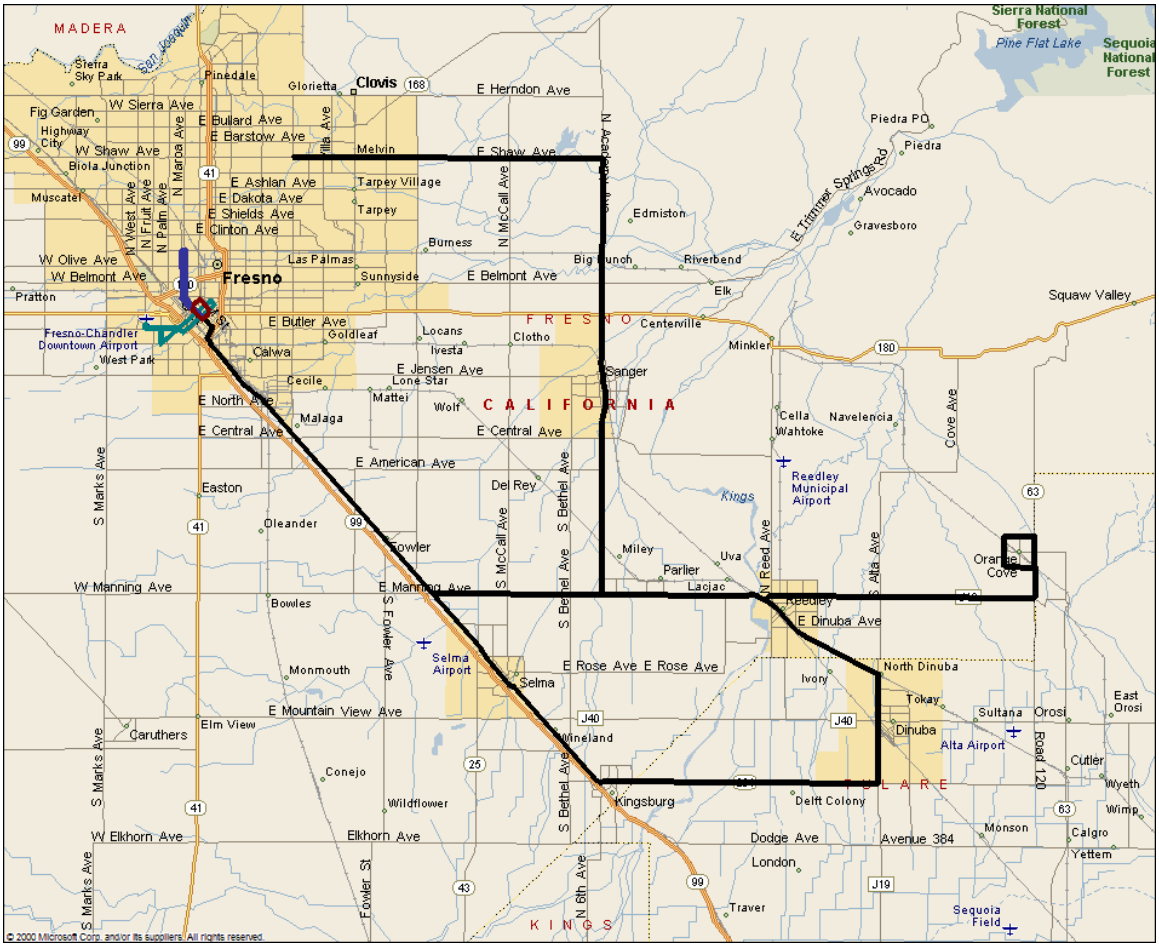
Next is the expense of Highway 99 from Manning to Fresno. This section of freeway is concrete instead of asphalt with an estimated building cost of $4million per lane per mile. At $4million per mile, a four lane concrete road would cost $16million per mile; the 13 mile section of Highway 99 costing $208million. The expected life of a concrete roadway is 15 years. With the rebuilding of this roadway every 30 years at an expense of $2million per mile for a total segment cost of $26million; it would be rebuilt 3 times over 100 years at a minimal cost of $78million.

So, for life span and road maintenance cost comparisons, the road could aggregate $406million over 100 years.

Regarding government income: the tax on gasoline in California is 47cents per gallon (29cents state 18cents federal). With an average of 20 mpg, the government brings in 2.35cents per mile.

With the government tax income per mile at 2 1/3 cents per mile, the farebox of this project at 10cents per mile, a return on investment would have a quicker payoff period with a network of new technology transit corridors.

With the addition from private sector development and their involvement in new technology transit this system can quickly grow into a complete network to provide a convenient and affordable transportation alternative to the automobile.



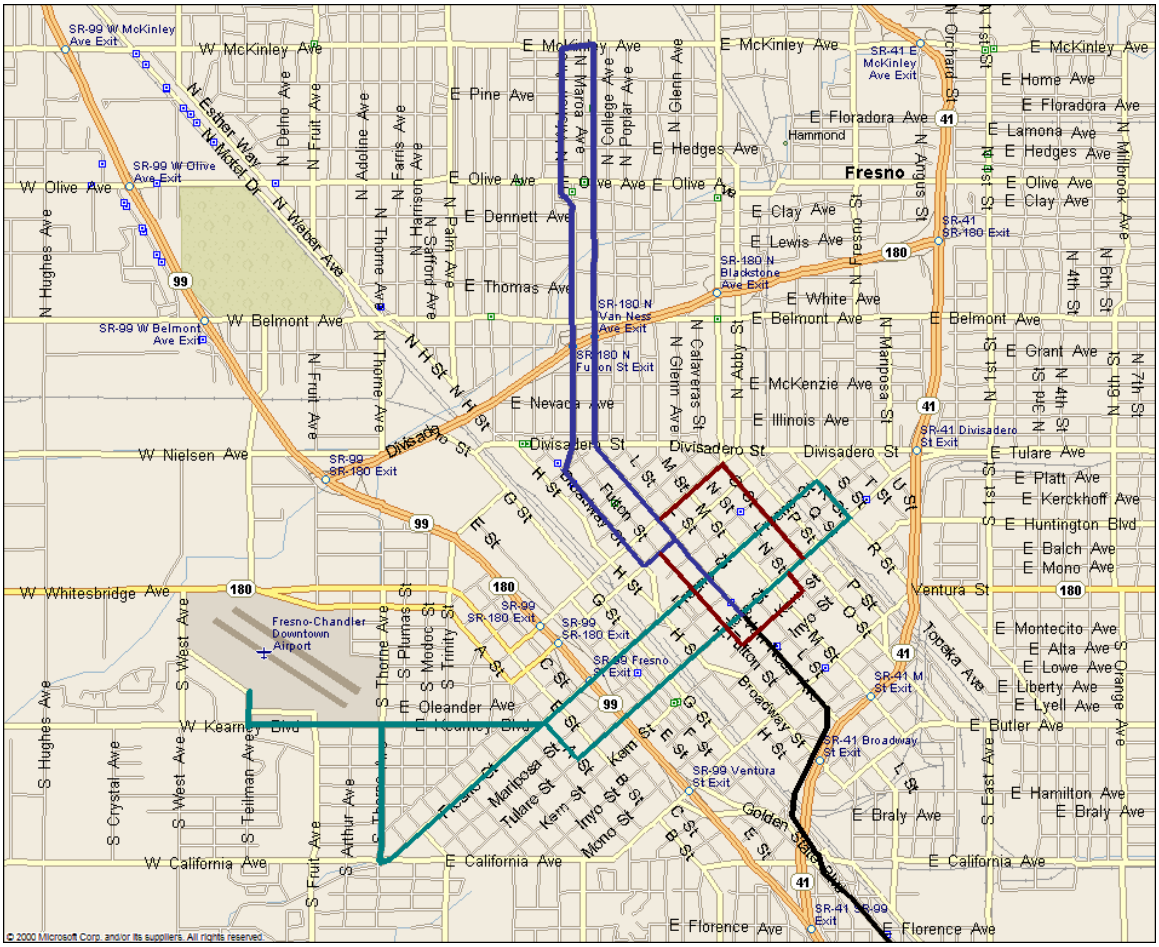
This map shows several possible routes throughout the area that would sever as a tremendous envionrnmental and economic transportation alternative.

Several PRT networks within the City of Fresno

Connecting Dinuba would have the advantage of interacting with Tulare County. Such a loop would enable a direct connection with Kingsburg to Downtown Fresno.

PRT offers networks of connectivity rather than a single system line within a transportation corridor.

Phase One and Two of this project provides technology development and gives Fresno the opportunity to choose where it's development of this needed PRT technology can be implemented.



This is a map delineating possible PRT networks in the City of Fresno.

In addition to the single system line of Downtown Fresno to Reedley, the outcome of Phase Two should be able to justify the cost effectiveness of using PRT connectivity throughout the Fresno County Rural communities. The single line from Fresno to Reedley is only one of many corridors Fresno County needs to consider to reach SCS compliance for its environmental and economic sustainability with the social equity for better quality of life.

This Three Phase project works directly into the SB375 mandates. Phase One develops technology, Phase Two allows public system certification and Phase Three develops the necessary transportation component for Sustainable Communities Strategies. Development of this transportation system is extremely important in providing the transportation component for environmental compliance in the needed reduction of vehicle miles traveled (VMT). The consequence of this particular solution results in an overall economic boost to Fresno County.

Conclusion

This Three phase project, using Applied Levitation Technology, provides the answer to the SB 375 density dilemma; and creates the solution to SCS (Sustainable Communities Strategies) in the reduction of VMTs (Vehicle Miles Traveled). This project attains the 2020 targets of AB32 by providing an affordable transit system to base the needed component to transit oriented development. (Bringing the "T" to TOD for Fresno County)

The Reedley Test Facility Project can be an essential piece in stimulating the region's sagging economy. By using the economic multiplier effect of capturing dollars and keeping those dollars local otherwise spent on foreign oil, will go a long way towards securing our local economy.

Maglev technology is the only environmentally sustainable transportation available. This project presents a valuable opportunity for Reedley and Fresno County to be the leader in this emerging industry. To re-establish the transit oriented design based on a sustainable foundation establishes a secure cultural core to land use.

As the 1700s brought the world expansion to industrialization and created the term: "industrial revolution", the 1900s brought us the "information revolution" with computerization. The next step in mankind's intellectual revolution will be mobility. This project places Reedley as the global leader in developing this proof of technology and system deployment.

Beyond providing the catalyst for sustainable real estate land use development with an oil free transportation network, this project holds the potential of hosting a global technology hub for this emerging clean energy transportation industry which can lead to an employment center for manufacturing.

Thank you,
JP Sweeney

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