

APPLICATION FOR PROPOSITION 84 FUNDS

Model Development and Data Gathering



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Table of Contents

I. Project Purpose	1
II. Existing Model Description	1
III. Existing Model and Data Limitations	2
IV. Model Improvement Plan (Scope of Work)	3
V. Funding Request Summary	11
VI. Schedule Summary	11
VII. Statement of Commitments	11

Appendices

Appendix 1 - Funding Request Table

Appendix 2 - Schedule Chart

I. PROJECT PURPOSE

In applying for the Proposition 84 funds made available through The Budget Act of 2009, it is the intent of the Butte County Association of Governments (BCAG) to improve our existing travel modeling capabilities by developing stronger land use and travel datasets, increasing the model's sensitivity to regionally specific factors which may contribute to the reduction of passenger vehicle greenhouse gas emissions, and build as well as implement a regional land use and sketch planning tool to support scenario development and assist in the policy making process. These modeling and data improvements are necessary for our region to comply with Senate Bill 375 (SB375) and promote the objectives of the Strategic Growth Council (SGC). In addition, the tools and information gathered will be used to assist the state in further identification and preparation of transportation and land use related greenhouse gas estimates and targets. BCAG's proposal is requesting \$400,000 of Proposition 84 funds, all of which are being submitted under funding objective 1.

II. EXISTING MODEL DESCRIPTION

BCAG has maintained a travel demand forecasting (TDF) model to support long-range transportation planning efforts and to provide a mechanism for evaluating the potential effects of future land development and transportation improvement projects on the region's transportation network and to demonstrate compliance with federal air quality regulations. The most recent version of the BCAG model was created in TransCAD Transportation GIS software and validated to year 2006 conditions.

The current version of the TDF model is a three-step based model consisting of Trip Generation, Trip Distribution, and Trip Assignment stages. The Mode Choice component was not included in the model process due to its tall cost to implement, as well as the low percentage of commute trips (<2%, *U.S. Census data*) by public transit occurring in the region.

The model area consists of the entire Butte County region which includes the cities of Chico, Oroville, Gridley, Biggs, Paradise and the remaining unincorporated area. To represent travel into and out of Butte County, the model also includes 20 "external gateways" at major roads that cross the county line.

The TDF model produces traffic forecasts for daily, AM peak hour, and PM peak hour conditions.

In addition to the 2006 base year version of the TDF model, a future 2035 year of the model was developed as the horizon year of the existing BCAG Regional Transportation Plan (RTP). All interim years reported for the purpose of federal air quality conformity are based on interpolations of the modeled outputs.

Land use information for the TDF model is aggregated at the traffic analysis zone (TAZ) level, of which there are 900+. The existing land use data was developed from the County Assessor's information and cross referenced with the local jurisdictions land use and zoning information, where available, and 2006 aerial photography.

The road network is based on BCAG's existing GIS maintained centerline street file and includes generalized roadway classifications and capacities. Speeds are based upon posted allowances and modeled to represent free-flow.

The TDF model uses five trip purposes: Home-Based Work, Home-Based School, Home-Based Other, Non-Home-Based, and Casino.

Inter-regional travel (IX, XX, XI) and trip information is based on outputs from the Caltrans Tri-County model, the California Statewide Travel Model, 2000 Statewide Household Travel Survey, and 2006 American Community Survey. All external links were validated against traffic counts.

The model is validated to meet both static and dynamic validation standards. Static validation results are in compliance with guidelines established by Caltrans and the Federal Highway Administration.

III. EXISTING MODEL AND DATA LIMITATIONS

As described above, the existing model has been developed to support the general analysis of the RTP and to generate the necessary outputs to meet federal air quality requirements. Through the SB375 Regional Targets Advisory Committee (RTAC) process the states Metropolitan Planning Organizations (MPO) were given the opportunity to assess their existing models and identify limitations, or the lack of sensitivity, to the policy variables or factors which are likely to influence passenger vehicle travel within the state.

The following summary lists the items identified by BCAG staff that are currently lacking from our modeling and data programs and most applicable to the BCAG region for 2012 RTP update and Sustainable Communities Strategy (SCS) and Alternative Planning Strategy, if need be. These items have been included in and are consistent with the MPO modeling and data assessment prepared for the RTAC.

Travel Modeling

Micro Level Land Use (e.g. 4D's) – The ability to analyze the density, diversity, design, and destination (accessibility) of the built environment and its relation to the use of the transportation system

Transit – To determine what impacts increase/decrease transit service has on the transportation system

Pricing – The ability to analyze the effects of pricing in terms of parking charges

Exogenous Factors – To determine how factors such as the population’s age and income affect local passenger vehicle travel

Land Use Forecasting / Sketch Planning

BCAG currently has no tool to assist in developing automated forecasts of land uses based on the available capacity of land. Having the ability to determine how specific land use scenarios affect passenger vehicle travel and the transportation system will be crucial in developing the region’s SCS.

Data Collection

Land Use (Parcel Level)

- Housing – residential density and mix
- Employment/Commercial – industry specific jobs and total area consumed (square ft.)

Transportation System Utilization

- Traffic counts – need to update, expand coverage area, and include multiple vehicle classes

Transportation System Supply

- Prevailing Speeds – lacking a survey of major roads and highways
- Transit system - stop information by route and frequency
- Pedestrian and bike facilities – existing design and intersection density

IV. MODEL IMPROVEMENT PLAN (Scope of Work)

The model improvement plan outlined below takes an approach of which: 1) acquires appropriate data; 2) develops the required GIS datasets; 3) improves the travel modeling capabilities; and 4) develops a land use and sketch planning model. These four (4) components will allow BCAG to implement the necessary tools and data for the proper analysis and development of the region’s RTP and associated SCS/APS.

The requested Proposition 84 funding (\$400K), combined with BCAG’s existing Caltrans 5304 planning grant, provides BCAG a means of developing these data and tools. The Caltrans 5304 planning grant will be utilized for the development of our 4D’s (density, diversity, design, and destination) and transit forecasting components.

The data collected as part of this request will be implemented into BCAG’s ongoing data collection and maintenance programs, which currently consist of tri-annual traffic counts

and the maintenance for the regions GIS parcel, address, roads, and critical species habitat data.

Modeling improvements will be developed to analyze this newly collected data which will more accurately assess the effects of land use and transportation on passenger vehicle related travel and greenhouse gas (GHG) emissions. These improvements seek to address the deficiencies outlined in the prior section.

By the first round of BCAG’s SCS development, which is required to be completed by December 2012, it is our intent to have a modeling and data collection program which fully utilizes our existing trip based model and meets the area’s needs for developing an SCS/APS in compliance with SB 375. These improvements will also be valuable to the development of a future tour based model. It is BCAG’s desire to have this tour based model in place by the second round of the region’s SCS/APS (2013-2015).

A detailed funding request table and schedule of projects have been included as Appendices 1 & 2.

Task 1) Data Acquisition

The data acquisition plan outlined below involves the purchase of data for the purpose of informing BCAG’s travel forecasting model by capturing more detailed existing conditions (base year) information. The level of detail captured is essential in developing the existing land use and transportation assumptions necessary for developing adequate greenhouse gas targets and the region’s SCS.

Prior to the acquisition of data, all specifics regarding the amount and level of capture will be reviewed with BCAG’s transportation advisory committee (TAC) which consists of representatives from the local jurisdictions, Butte County Air Quality Management District, Caltrans, local tribal governments, and the general public.

The total Proposition 84 funding request under this task is \$15,000.

- **Task 1.1) Acquire Business Database** – Locate vendor (e.g. InfoUSA, Dunn & Bradstreet, etc.) and acquire business database which includes the address, business type, number of employees, and facility square footage for each non-home based business in the Butte County region. Database will be used in the development of the Commercial GIS Dataset described below. Estimated cost includes initial purchase of database and yearly renewal over the three year period up to the adoption of the RTP/SCS. Unfortunately, most of these vendor databases are covered with a license agreement which does not allow for redistribution. Therefore, the database will not be eligible for redistribution outside of our agency.

Cost and Funding Request	Deliverable
Estimated Cost = \$5,000	Business database for the BCAG region
Prop.84 Funding Request = \$5,000	

- **Task 1.2) Traffic Counts 2009/10** – Acquire consultant to capture volume, speed, and vehicle class on 270 regionally significant roadway segments (excluding state highway facilities). Information will be used to update inputs and recalibrate BCAG traffic model for the year 2009/10. This acquisition is part of BCAG’s normal 3 year update schedule and is currently in progress and programmed in Overall Work Program (OWP). The additions of speed and vehicle class information are new to the program. Expected completion is September 2010.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$30,000	Traffic volume, speed, and vehicle class data
Prop.84 Funding Request = \$0	

- **Task 1.3) Highway Speed Survey** – Utilize existing traffic count consultant to capture peak and off-peak travel speeds along urban state highways and major arterials. Information gathered will be used to establish prevailing speeds for the segments of roadways (existing state highway facilities) not captured in the Traffic Counts 2009/10 project described above.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$10,000	Peak and off peak travel speeds for urban state highways
Prop.84 Funding Request = \$10,000	

Task 2) GIS Data Development

The development of the GIS datasets described below will be used as inputs into both the existing travel forecasting and the new land use/ sketch planning model detailed in the last part of this section of the MIP. These datasets provide for a greater amount of detail than what currently exists by moving from information compiled at the TAZ level to information created and maintained at the parcel and sub-parcel level. These GIS datasets will allow for the increase in analysis and sensitivity of land uses required under SB375 and will assist in promoting the goals of the SGC.

All GIS datasets will be developed with the input and review of a GIS Project Development Team (PDT) consisting of representatives from the local jurisdictions and California State University, Chico as well as the BCAG Planning Directors Group which consists of the region’s local government planning directors and Butte Local Agency Formation Commission (LAFCo) staff.

Once the datasets have been developed, the ongoing maintenance will be incorporated into BCAG’s existing GIS maintenance program. The current maintenance program is through a contract with the California State University, Chico Geographical information Center (CSUC, GIC), who is responsible for the maintenance of BCAG’s regional parcel, address, and roads GIS base layers. The CSUC, GIC will also be utilized for the development of the datasets.

All GIS datasets developed under BCAG’s Proposition 84 funding request will include metadata meeting Federal Geographic Data Committee standards and shall be registered at CalAtlas.

The total Proposition 84 funding request under this task is \$155,000.

- **Task 2.1) Commercial Dataset** – Develop GIS dataset that contains the general footprints (building outlines) for all commercial facilities in the Butte County region. Building footprints will attribute with information from the business database acquired under the Data Acquisition section detailed earlier. The dataset will be used as input into the travel forecasting model and land use model for the purpose of determining the intensity of commercial use and the location of jobs within the region. This dataset is essential in analyzing the micro level land uses associated with SB 375. Dataset will be maintained on a yearly basis using building permit data from the jurisdictions and updates of the business database.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$35,000	Commercial building footprints in GIS format with employment info
Prop.84 Funding Request = \$35,000	

- **Task 2.2) Existing Parcel Level Land Use Dataset** – Using aerial photography, assessor’s database, the business database, the California Department of Water Resources recent land use survey, and the jurisdictions existing land use inventories, develop a parcel level existing land use dataset for the BCAG region. The completed land use dataset would be required to contain residential parcels by type (e.g. single family, attached), number of housing units, commercial use by type (e.g. retail, manufacturing, neighborhood, etc.), non-urban uses (e.g. agricultural, native, etc.), and urban vacant lands. Large parcels with multiple uses (e.g. agriculture and residential) would be divided. As with the commercial dataset, this dataset is essential in analyzing the micro level land use associated with SB 375. Dataset will be maintained on a yearly basis using building permit data and available aerial photography.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$45,000	Parcel level land use GIS file for the BCAG region
Prop.84 Funding Request = \$45,000	

- **Task 2.3) Combined General Plan Dataset** – Using the jurisdictions’ recently developed preferred land use alternatives, specific plans, or the newly adopted general plans, create a combined general plan GIS dataset for the region. Dataset would contain the appropriate general plan designation including the allowable and anticipated development densities for each parcel. This dataset creates the framework for projecting and allocating the housing and jobs associated with the regions SCS. The layer would be revised based on new information on a yearly basis.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$25,000	Combined GP dataset in GIS format for the BCAG region
Prop.84 Funding Request = \$25,000	

- **Task 2.4) Bus Route and Stop Dataset** - Improve the existing BCAG bus route and stop dataset by adding detailed times of service and adjusting to represent current route configurations. These updates will provide for the improved analysis of travel around high frequency service areas and gives staff the ability to develop travel assumptions regarding land use and proximity to transit. This dataset will contribute to the development of BCAG’s future transit plan and be used within the land use model as an “attraction” for development. It is probable that transit will be a chief component of reducing passenger vehicle travel in the region and developing the area’s SCS.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$15,000	Detailed bus route and stop GIS file for the BCAG region
Prop.84 Funding Request = \$15,000	

- **Task 2.5) Pedestrian and Bicycle Facilities Inventory** – Collect existing sidewalk and bicycle paths in GIS format utilizing jurisdiction’s in-house information and aerial photography. Information will be used to develop assumptions regarding accessibility of existing and future land uses for pedestrians and bicycles.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$15,000	GIS dataset of bike and pedestrian facilities for BCAG region
Prop.84 Funding Request = \$15,000	

- **Task 2.6) Maintenance of GIS Datasets** – All GIS datasets listed above and developed under this proposal will be included in the existing BCAG GIS maintenance program. Datasets will be updated on an annual basis, over the two year period from December 2010 - 2011.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$20,000	Annual maintenance of the datasets described above
Prop.84 Funding Request = \$20,000	

Task 3) Travel Model Improvements - TransCAD & post processors

Taking the newly acquired and developed datasets, BCAG will update the existing travel model’s travel assumptions, implement a 4D’s and transit forecasting component, calibrate/validate, add new 2020 and 2035 land use and road networks, and update the documentation.

The travel forecasting model is operated in proprietary software (TransCAD) and requires a high level of expertise to interpret and operate. Therefore, the actual modeling software will not be provided by BCAG but all inputs, assumptions, and non-proprietary files will be provided at no cost to those that request the information.

The total Proposition 84 funding request under this task is \$115,000.

- **Task 3.1) Update Land Use, Trip Generation, and Trip Distribution** – Based on the updated land use and households survey data collected for this project, update the TransCAD land use databases, the trip generation module, and the trip distribution module of the BCAG TransCAD model. Includes new trip generation traffic counts.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$30,000	Updated land use, trip generation, and trip distribution for travel model
Prop.84 Funding Request = \$30,000	

- **Task 3.2) 4D's and Transit Forecasting Component** – Enhance the sensitivity of BCAG's existing model to account for the effects of smart growth neighborhood development characteristics on travel taking into account alternative modes of travel (e.g. bike, walk, and transit). Following the 4D's implementation, the model will be enhanced to forecast transit ridership based on recent survey ridership data and the 4D variables.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$110,000	4D's processor and transit forecasting component
Prop.84 Funding Request = \$0	

- **Task 3.3) Increase Sensitivity for Age and Household Size** – Enhance the sensitivity of BCAG's existing model to account for the effects of age of householder and household size on trip generation. Information will be applied at the TAZ level using standard trip generation rates cross-classified by age and household size. Data sources may include US Census Bureau, the Transportation Research Board's National Cooperative Highway Research Program (NCHRP) reports, and existing MPO modeling documentation.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$10,000	Age/household size trip generation cross classification tables for TransCAD model
Prop.84 Funding Request = \$10,000	

- **Task 3.4) Increase Sensitivity for Cost of Travel** – Enhance the sensitivity of BCAG's existing model to account for the effects of travel costs. The existing trip generation component of the model will receive a travel cost elasticity based on the latest research from national data sources. Elasticities will only be applied to future scenarios, not the existing base model.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$5,000	Cost of travel elasticity applied to trip generation component of TransCAD model
Prop.84 Funding Request = \$5,000	

- **Task 3.5) Calibrate/Validate Model** – Update model with new traffic counts and calibrate/validate the model. Include speed and road capacity validation on key arterials and state highways. Model validation will include static and dynamic tests. Update GHG emissions post processor to latest standards.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$50,000	Calibrated travel forecasting model
Prop.84 Funding Request = \$50,000	

- **Task 3.6) Implement 2020 Year and Update 2035 Horizon**– Model will need to forecast 2020 outputs based on inputs of 2020 road network and land use plan. Consultant will be required to update modeling script and adjust internal/external travel factors. Update the 2035 land use file and to reflect the new base year conditions and the results of the land use model allocation.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$20,000	Working 2020 and updated 2035 horizon year for SB 375 analysis
Prop.84 Funding Request = \$20,000	

- **Task 3.7) Update Documentation** – Implement new language for model improvements (*cost associated with this is factored into each individual model improvement*)

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$0	Updated travel model documentation
Prop.84 Funding Request = \$0	

Task 4) Land Use Allocation and Sketch Model Development

Develop land use allocation and sketch planning tool to assist with scenario planning, public presentation, and development of the areas SCS/APS. Land use allocation tool will be developed in either UPlan or I-Place3s software which will allow for the future allocation of jobs and housing in the region taking into account the available land supply and various attractions or discouragements to development and transportation.

The land use allocation model will be utilized with the improved travel model to run various scenarios as a sketch planning tool. Due to the small size of the BCAG region, in comparison to other California MPO's, the travel model can be run in a short amount of time (approximately 15 minutes) and can be used in a public workshop setting.

At this time, BCAG staff is aware that UPlan is non-proprietary but does rely on other proprietary software to operate. In addition, the status and capabilities of I-Place3s is unknown but remains a viable option for the region since our neighboring MPO, Sacramento Area Council of Governments (SACOG), utilizes it in their planning activities. Therefore, as with the travel forecasting model, both applications require a

high level of expertise to operate. BCAG will provide all possible components of the modeling inputs and outputs to the public at no cost.

The total Proposition 84 funding request under this task is \$115,000.

- **Task 4.1) Software Support and Services Agreement** - Enter into an agreement with software provider for services to assist in the development and operation of the land use model. Services would include technical support, trouble shooting, scenario testing, and assistance in public meetings.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$15,000	Software and technical support for land use model
Prop.84 Funding Request = \$15,000	

- **Task 4.2) Development of Land Use Model** – Acquire consultant to prepare data for use in model, running of the model, and housing software application and completed model. Consultant will be required to input all relevant datasets including existing land uses, available future lands (combined general plan layer, attraction layers (e.g. transit lines, major roadways), and discouragement layers (e.g. flood zones, environmental habitat, farmland, slope, etc.).

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$30,000	Operating land use model stored on consultants server
Prop.84 Funding Request = \$30,000	

- **Task 4.3) Implementation of Land Use and Sketch Model** – Utilize the GIC, travel model software provider, and the travel model consultant for the purpose of creating applicable passenger vehicle GHG reduction scenarios for review and use in SCS/APS. In addition, link will be established with travel model to inform the model of the new land use allocations. Allocations will be summarized at the TAZ level. Task may also include the operation of models at public workshops associated with SCS/APS development.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$65,000	Linked land use and travel model operating as sketch model. Land use and transportation scenarios for SCS and APS, if need be.
Prop.84 Funding Request = \$65,000	

- **Task 4.5) Maintenance of Land Use/Sketch Model** – Model will be maintained by CSUC, GIC to include new GIS datasets, planning assumptions, and installation of any software upgrades necessary. Model will be updated on an annual basis, over the two year period from December 2010 - 2011.

Cost and Funding Request	Deliverable
Estimated Consultant Cost = \$5,000	Annual maintenance of the land use /sketch model
Prop.84 Funding Request = \$5,000	

V. FUNDING REQUEST SUMMARY

The total Proposition 84 funding request for this proposal is \$400,000. If approved, this proposal will be combined with BCAG's recently approved Caltrans 5304 planning grant in the amount of \$97,383. In addition, BCAG will be utilizing \$47,617 in local planning funds along with an estimated \$52,045 in in-kind contribution.

A detailed table of BCAG's funding request is included as Appendix 1.

VI. SCHEDULE

The proposed schedule for implementation of the MIP would commence in July of 2010 with the data acquisition and development and culminate in February of 2012 with the completion of the land use and sketch model. Fiscal Year (FY) 2010/11 would include the acquisition and development of data to support the travel, land use, and sketch model improvements and implementation. In addition, FY 2010/11 would be focused on travel model improvements and the development of the land use and sketch model. FY 2011/12 through February of 2012 would be dedicated to the maintenance of the new data and models along with the formation of the RTP and SCS/APS through the development and analysis of scenarios.

A detailed chart of the schedule is included as Appendix 2.

VII. STATEMENT OF COMMITMENTS

The Butte County Association of Governments, as part of the application for Proposition 84 funds, is committed to the following:

- Will submit quarterly progress reports which include detailed information on the progress of each identified milestone, expenditures to date, and remaining funds;
- Will identify and provide a detailed report of any planning carry-over dollars. Dollars will be spent solely on modeling improvements and will not be used for administrative or overhead costs;
- Will be consistent with SB 375, public transparency requirements, and, the Regional Transportation Plan Guidelines;
- Will provide web access to all materials related to the application and award of these Proposition 84 funds, including – application, status updates, reports, and final deliverables.

APPENDIX 1 – Funding Request Table

Tasks	Responsible Party	Funding Objective	Funding				
			Project Cost	Prop 84 Grant	Caltrans 5304	*Local	**In-Kind
1) Data Acquisition							
1.1) Business Database	Vendor\BCAG	1	\$5,000	\$5,000			\$713
1.2) Traffic Counts 09/10	Consultant\BCAG	1	\$30,000			\$30,000	\$1,426
1.3) Highway Speed Survey	Consultant\BCAG	1	\$10,000	\$10,000			\$713
2) GIS Data Development							
2.1) Commercial	CSUC, GIC/BCAG	1	\$35,000	\$35,000			\$1,426
2.2) Existing Parcel Level Land Use	CSUC, GIC/BCAG	1	\$45,000	\$45,000			\$2,852
2.3) Combined General Plan	CSUC, GIC/BCAG	1	\$25,000	\$25,000			\$1,426
2.4) Bus Route and Stops	CSUC, GIC/BCAG	1	\$15,000	\$15,000			\$713
2.5) Pedestrian and Bike Facilities	CSUC, GIC/BCAG	1	\$15,000	\$15,000			\$713
2.6) Data Maintenance	CSUC, GIC/BCAG	1	\$20,000	\$20,000			\$2,852
3) Travel Model Improvements							
3.1) Update Land Use, Trip Generation, and Trip Distribution	Consultant/BCAG	1	\$30,000	\$30,000			\$2,852
3.2) 4D's and Transit Forecasting Component	Consultant/BCAG	1	\$110,000		\$97,383	\$12,617	\$14,256
3.3) Age and Household Size	Consultant/BCAG	1	\$10,000	\$10,000			\$713
3.4) Cost of Travel	Consultant/BCAG	1	\$5,000	\$5,000			\$713
3.5) Calibrate/Validate	Consultant/BCAG	1	\$50,000	\$50,000			\$5,704
3.6) Implement 2020 Year and Update 2035 Horizon	Consultant/BCAG	1	\$20,000	\$20,000			\$2,852
3.7) Update Documentation	Consultant/BCAG	1					
4) Land Use and Sketch Model							
4.1) Services Agreement for Software Support	Consultant(s)/CSUC, GIC/BCAG	1	\$15,000	\$15,000			\$2,852
4.2) Develop Land Use Model	Consultant(s)/CSUC, GIC/BCAG	1	\$30,000	\$30,000			\$2,852
4.3) Implementation of Land Use and Sketch Model	Consultant(s)/CSUC, GIC/BCAG	1	\$65,000	\$65,000			\$5,704
4.4) Model Maintenance	Consultant(s)/CSUC, GIC/BCAG	1	\$5,000	\$5,000			\$713
Totals			\$540,000	\$400,000	\$97,383	\$42,617	\$52,045

*Local contribution is approximately 60% Federal and 40% Local Transportation Funds

** In-kind contribution is an estimate of BCAG staff time and is not calculated into overall project cost

APPENDIX 2 – Schedule

Tasks	FY 2009/10												FY 2010/11												FY 2011/12											
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
1) Data Acquisition																																				
1.1) Business Database													■																							
1.2) Traffic Counts 09/10	■												■																							
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