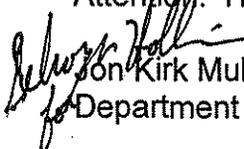


**CITY OF LOS ANGELES
INTER-DEPARTMENTAL MEMORANDUM**

Date: May 22, 2014

To: The Honorable City Council
c/o City Clerk, Room 395, City Hall
Attention: Honorable Mike Bonin, Chair, Transportation Committee

From:  Jon Kirk Mukri, General Manager
Department of Transportation

Subject: **RECOMMENDATION TO AWARD CONTRACT FOR TRAFFIC SURVEY SERVICES**

SUMMARY

The Los Angeles Department of Transportation (LADOT) is requesting authority to execute contracts with National Data & Surveying Services and Wiltec for traffic survey services on an as-needed basis. The proposed contract would be for a three-year term, with the option of two one-year extensions. The estimated contract value for the three-year term is \$634,500.

RECOMMENDATION

That the Council, subject to concurrence by the Mayor:

AUTHORIZE the general manager of LADOT to negotiate and execute three-year contracts for traffic survey services with National Data & Surveying Services (NDS) and Wiltec, with the option of two one-year extensions, subject to the approval of the City Attorney as to form and legality.

DISCUSSION

Overview

The Los Angeles Department of Transportation (LADOT) conducts traffic survey counts in three major categories. As more fully described below, these categories are Core Responsibilities, Congestion Management Program (CMP), and Active Transportation Programs (ATP). For over twenty years, LADOT has needed to utilize the services of contractors, on an as-needed basis, to supplement LADOT's in-house traffic survey resources. Because there has been, and continues to be, a need for outside contractors to conduct traffic surveys, LADOT initiated a Request for Proposals for traffic survey services. The

City Administrative Officer (CAO), through the City Charter Section 1022 review process, has concurred with LADOT on the need to retain the services of traffic survey contractors.

Accordingly, approval is requested to utilize contractors to perform traffic surveys on an as-needed basis. It should be noted that Proposition C and Measure R funds are available for most of the cost of the proposed contracts.

Background

For over twenty years, LADOT has utilized contractors on an as-needed basis to perform traffic surveys. The prior traffic surveys contract, which utilized both NDS and Wiltec, commenced in April, 2007 and expired in March, 2012. Although LADOT does employ a small staff of full time traffic counters, there are many times when there is a surge in demand for traffic counts, and the services of outside contractors are necessary to meet demand in a timely manner.

In an effort to address the need for traffic survey services by outside contractors, an RFP process was initiated in August, 2012. As a result of the RFP process, in January, 2013, two contractors were recommended by the evaluation panel for the award of contracts. However, the procurement process was then placed on hold because the department hoped that the department's "bench list" of on-call consultants could be utilized to procure these services. For various reasons, primarily because of the absence of any traffic survey companies on the bench list, it was later determined that it was not feasible to utilize the bench list to procure traffic survey services.

The result of not having traffic survey companies under contract from January, 2013, to the present is that the department was forced to use Authorities for Expenditure (AFE's) to obtain urgently needed traffic survey services by outside companies. Another result, as further explained in this report, was that a large backlog of requests for traffic surveys developed.

Accordingly, to reduce the backlog of count requests and standardize the procurement process, it is now recommended that the RFP process continue to the contract stage, with the award of contracts to the recommended companies. A brief description of how the contractor's services will be utilized, on an as-needed basis, is as follows:

Core Responsibilities

The Department's core responsibilities are handled by the Traffic Surveys Section. The section collects traffic volume and speed zone survey information for use by the Department's transportation engineers, planners, the Los Angeles Police Department and other public agencies. Requests for counts come primarily from LADOT District Offices in response to constituent service requests.

The data is used as part of required traffic engineering analyses for a variety of transportation improvements.

The section is presently extremely short staffed and continues to lose staff to attrition. There is a growing backlog (currently at 100) of count and speed data requests. Recently, an increasing demand for video traffic data collection has been integrated into the sections' traffic collection tools and shown to be an efficient process when available. However, the lack of staffing even with this newer technology has not brought any significant backlog reduction for the demand of work performed by Traffic Surveys Section.

Most of the traffic surveys in this category will continue to be conducted by LADOT staff, however contractual services will be needed to augment the work of existing staff and to support backlog reduction of traffic count requests. Additionally, there is a new focus on data, particularly as it relates to active transportation and other street projects that must be met.

Congestion Management Program (CMP)

LADOT is required by law, on a biennial basis, to prepare a CMP Highway Monitoring Report in order to receive more than \$25 million annually in gas tax funds. The report requires at least two sets of traffic counts for 47 intersections, as well as updated geometric design plans for each of the intersections. It is estimated that the report will take 3,139 person hours to complete. The schedule could further be delayed due to CMP-imposed restrictions, such as traffic counts should not be collected on rainy days, or on days before and after holidays. Because of insufficient staff, without utilizing the services of an outside contractor(s), LADOT will be unable to complete the next required CMP count by the due date.

The CMP report is prepared every other year, representing a short-term, but significant work effort. For these reasons, LADOT has in the past utilized the services of traffic count contractor(s) for the CMP report. The estimated cost to utilize a contractor to complete this project is \$60,000. It is anticipated that Proposition C funds will be utilized for the CMP counts.

Active Transportation Programs

As discussed in a report to Council regarding Bicycle and Pedestrian Counts — Enhanced Data Collection (C.F. 13-1195), bicycle and pedestrian counts are one of the essential metrics for assessing the potential contribution of active transportation mobility toward achieving improved safety, congestion reduction air quality, and public health objectives. This data is required to identify traffic safety countermeasures, conduct project and program evaluation studies, assess mode share shifts, etc., in support of the Safe Route to School (SRS) Strategic

Plan/Assessment Study, People St, and other active transportation programs and projects.

For Active Transportation, the following data is needed for active transportation programs and projects: Speed and volume surveys, manual traffic counts, pedestrian crossing only counts, gap studies, intersection delay counts, spot speed surveys, counts of pedestrians and bicyclists on sidewalks, etc.

A particular data need is for the SRS study which identified the Top 50 priority public schools in terms of pedestrian and bicyclist safety needs. A set of "before" data is need to determine the appropriate traffic safety countermeasures, a set of "after" data to be taken after funded countermeasures are installed in order to evaluate the effectiveness of the countermeasures. It is anticipated that additional phases of the study will occur in subsequent years, covering additional groups of schools. Data has to have been conducted in a timely manner and at the same time for each school site, within limited windows of opportunity during the school year (outside of summer vacation and major holiday months).

There will be insufficient Survey Section staff to conduct the very large number of surveys within the timeframe for the SRS study, as well as for other active transportation programs and projects.

Reimbursable funds are available for the ATP surveys from Measure R pedestrian set aside funds (\$1.26 million) for the SRS study and People St projects. Reimbursable funds are also available for post-implementation data collection for the grant-funded SRS construction projects. Other funds may be identified as LADOT recommendations are formalized in follow-up reports submitted to City Council for approval. The General Fund would not be affected.

In Fiscal Year 2014-15, the estimated data needs for active transportation programs are as follows: 100 manual counts, 100 speed/volume surveys, 50 gap counts, 50 spot speed surveys, and 25 each of pedestrians and bicyclists on sidewalk and "pedestrian crossing only" counts.

Service Quality

LADOT has utilized the services of NDS and Wiltec for over ten years. During this period, both companies have provided timely and quality traffic counts for a range of traffic count types.

Cost

The proposers submitted costs for a range of traffic count types, for both Machine and Manual Counts and for Video Counts. The proposed prices are generally lower than the prices included in the prior contract for traffic counts with NDS and Wiltec. The

proposers have indicated that the lower prices are the result of increased competition in the industry, as well as technological advances.

Although traffic count services will be utilized on an as-needed basis the estimated costs for the three-year contract term are as follows:

Congestion Management Program - \$120,000 (\$60,000 in 2015 and 2017)
funded by Proposition C

Active Transportation - \$439,500 (\$146,500 for each of FY 2014-15, FY 2015-16
and FY 2016-17) funded by Measure R pedestrian and bicycle set aside funds

Core Program - \$75,000 (\$25,000 for each of the next three fiscal years) funded
by the General Fund

Total estimated contract cost for all three programs is \$634,500 over the three-year period.

Term

A three-year term is consistent with past practice. In addition, the preparation of the Request for Proposals and contract require significant staff time, and therefore any term less than three years will increase costs.

PROCUREMENT PROCESS

Procurement Type

The Request for Proposals (RFP) process was a "best value" procurement, not a low bid contract. This means that both price and non-price qualifications were considered. This type of procurement was selected to ensure that the city will receive the best combination of price and service quality.

Request for Proposals

An RFP was electronically posted on the Los Angeles Business Assistance Virtual Network (BAVN), in August, 2012, as required by city policy.

On September 13, 2012, a mandatory pre-proposal meeting was held at the LADOT headquarters office located at 100 South Main Street. The purpose of the pre-proposal conference was to provide an overview of the RFP and to provide an opportunity for prospective bidders to request clarification of the city's administrative requirements and other elements of the RFP.

Seven different companies participated in the pre-proposal meeting. The procurement officer chaired the meeting and the department's contract analyst was available to answer any questions regarding the city's administrative requirements. Answers to questions submitted by proposers were posted on the BAVN website.

Evaluation Committee

The Proposal Evaluation Committee consisted of the three highly qualified LADOT staff members, all Senior Transportation Engineers, with expertise in traffic surveys, transportation planning, and pedestrian enhancement planning. The committee members have a combined over 60 years of experience in transportation engineering and planning. Proposal evaluations were completed in January, 2013.

Evaluation Criteria

The RFP described the evaluation criteria (summarized below) and weighting (maximum points for each criterion).

<u>Criteria</u>	<u>Max. Points</u>
Qualifications of Proposer	25
Qualifications of Proposed Staff	15
Traffic Survey Costs and Cost Effectiveness	60
Total	100

A complete description of the evaluation criteria is contained in Section IV of the RFP on pp. 26-28.

Proposals Received

Three companies submitted proposals by the due date (in alphabetical order): Field Data Services of Arizona, NDS and Wiltec.

Pre-Screening Proposals

A "pre-screening" of each proposal was completed by the department's procurement officer and contract administration division to determine if all required information was received before the committee evaluated the proposals, i.e. that the proposals were responsive to the City's RFP and mandatory administrative requirements.

As a result of this pre-screening it was determined that one of the proposers, Field Data Services of Arizona, did not comply with the RFP Section IV requirements regarding submitting information on Qualifications of Proposer and Qualifications of Proposed Staff. Accordingly, the proposal from Field Data Services of Arizona was determined to be non-responsive and did not receive further consideration. Field Data Services of Arizona received both oral and written notification of this determination.

The remaining two proposals, from NDS and Wiltec, did comply with the City's required RFP and proposal administrative requirements including the Business Inclusion Program, Contractor/Bidder History Form, compliance with the Americans with Disabilities Act and the Contractor Responsibility Ordinance.

Negotiation of Pricing

As allowed in the RFP, prior to proposal review by the Proposal Evaluation Committee, proposers were given the opportunity to revise their proposed prices for traffic counts. As a result, both NDS and Wiltec submitted lower prices for some types of counts than were included in their original proposals. It was these adjusted prices that were submitted to the Proposal Evaluation Committee.

Evaluation Process

The evaluation process was administered as described in Section III of the RFP.

Initial Scoring and Ranking

The Proposal Evaluation Committee members reviewed the written proposals from NDS and Wiltec and gave scores and rank for each proposer, according to the evaluation criteria. Committee members did not discuss the proposals or share scoring with each other. Following initial scoring and ranking, the committee members submitted their scores and ranking to the committee chair. The chair tallied the scores of each member and confirmed that both proposers scored the minimum required points from all committee members.

Ranking

The committee chair then discussed the rankings with the committee members, discussed the strengths and weaknesses of each proposal, and confirmed the rankings of the members. The chair tabulated the rankings and the unanimous consensus showed NDS ranked first, followed by Wiltec ranked second.

Proposed Contracts

Recommend Contracts with both NDS and Wiltec

The committee then discussed whether the City should proceed with a contract only with NDS, or with two contracts with both NDS and Wiltec. The RFP specifically allows the City to contract with more than one proposer. Prior to this RFP, from April 2007 until March 2012, the City had contracts with both NDS and Wiltec. Having contracts with two companies during this period provided advantages including: 1) Capability to distribute the workload between two companies in the event one company is very busy; 2) Capability of not using a particular company if there are quality issues; and 3)

Opportunity to use a company that has the best expertise in a particular type of traffic count.

In summary, having contracts with two companies instead of one provides the City with flexibility to ensure the timeliness and quality of the work product, and to utilize a company with the preferred specialization. It should also be noted that having contracts with two companies does not require the City to use both companies for a particular traffic count, but does give the City that option. Accordingly, it is the recommendation of LADOT that the City proceed with contracts with both NDS and Wiltec.

Scope of Work Included in Contracts

The scope of work in the contracts will cover traffic surveys for vehicles, bicycles and pedestrians, utilizing automatic, manual and video count methodologies as directed by LADOT. The types of counts will include, but are not limited to, the following categories: Daily automatic, speed and volume, manual counts, gap counts, spot speed surveys, bicycle volume and turning movement, pedestrian volume and turning movement, travel time, travel mode tallies, and demographic data regarding bicyclist gender, helmet use, etc. Contracts will include the attached scope work, included in the Request for Proposals described herein, with minor updates consistent with current department needs and available new technology.

FISCAL IMPACT

The CMP portion of the work will be funded with Proposition C, the Active Transportation Programs counts will be funded by Measure R set aside funds, and the Core Program counts will generally be funded by the General Fund. Of the estimated \$634,500 cost of the three-year contract, it is estimated that about \$75,000 will be from the General Fund.

JKM:mm

c: Borja Leon, Office of the Mayor

Attachment

Scope of Work

ATTACHMENT

SCOPE OF WORK TRAFFIC ENGINEERING SURVEYS REQUEST FOR PROPOSALS

1.0 OVERVIEW

The Department of Transportation conducts traffic survey counts in three major categories. As more fully described below, these categories are Core Responsibilities, Congestion Management Program (CMP), and Pedestrian Programs Division (PPD). A brief description of these traffic survey categories is as follows:

Core Responsibilities

Requests for traffic counts come primarily from LADOT District Offices. The Traffic Surveys Section collects traffic counts, including volume and speed zone survey information, for use by Transportation Engineers, other public agencies, the Los Angeles Police Department and private consultants. The information is used as part of required traffic engineering analysis for a variety of transportation improvements. It is anticipated that most of the traffic surveys in this category will be conducted by LADOT staff, however the contractor's services may be needed to augment the work of existing staff.

Congestion Management Program (CMP)

LADOT is required by law, on a biennial basis, to prepare a CMP Highway Monitoring Report, which is next due to the Metropolitan Transportation Authority (MTA) by June 15, 2013, in order to receive more than \$25 million in gas tax funds. The report requires at least two sets of traffic counts for 47 intersections, as well as updated geodesign plans for each of the intersections. It is estimated that the survey will take 3,139 person hours to complete. The schedule could further be delayed due to CMP-imposed restrictions, such as no counts on rainy days, and no counts on the day before and after holidays. Because of insufficient staff, without utilizing the services of an outside contractor, LADOT will be unable to complete the CMP count by the June 15th, 2013 deadline.

Pedestrian Programs Division (PPD)

For the Pedestrian Programs Division (PPD) data needs include 24-hour speed and volume surveys, manual counts, pedestrian crossing only counts, gap counts, intersection delay counts, spot speed counts, and pedestrian and bicyclists on sidewalk counts. This data is needed to identify needed traffic safety countermeasures, programs and strategies for the Safe Route to School (SRS) study. Phase One of the SRS study, to be completed in FY 2012-13, will address prioritized schools which will be selected primarily based on the worst traffic walking and bicycling

crash histories. The data will be used to determine the appropriate traffic safety countermeasures. Two or more sets of data will be collected at the same locations before and after the countermeasures are implemented to evaluate the effectiveness of the countermeasures. It is anticipated that additional phases of the study will occur in subsequent years, covering additional groups of schools.

In Fiscal Year 2012-13, the following may be required for this special-funded program: approximately 200 manual counts, 200 speed/volume surveys, 100 gap counts, 100 spot speed counts, and 50 each of pedestrians and bicyclists on sidewalk and "pedestrian crossing only" counts.

2.0 GENERAL REQUIREMENTS

- 2.1 The Consultant shall follow the General Requirements in relation to the Core Program as well as the CMP and/or PPD components of the proposal, unless directed otherwise by the LADOT or as specified in the AGREEMENT. These requirements apply to data collection and reporting procedures.
- 2.2 The Consultant shall conduct the surveys per instructions on the LADOT "Field Data Request" form, or similar. (See Exhibit A).
- 2.3 Requests for traffic surveys will typically be sent to CONSULTANT on the Friday of each week.
- 2.4 Surveys are generally conducted on Monday through Friday. However, LADOT's program conditions may include, but not be limited to the exclusion of specific days of the week, or the inclusion of Saturday or Sunday surveys.
- 2.5 LADOT may require that surveys be conducted on certain days of the week (e.g., "Tuesday to Thursday only").
- 2.6 Traffic surveys shall not be conducted on holidays and significant celebrations, or on the day before or after a holiday.
- 2.7 The Consultant shall provide the results within 15 working days from the date the LADOT request is sent.
- 2.8 LADOT reserves the right to reject the results of any traffic survey that does not meet LADOT requirements per this AGREEMENT or as written on the "Field Data Request" form.
- 2.9 Traffic surveys shall not be conducted under unusual conditions which may yield unusual traffic data including but not limited to construction activities that result in lane closures or detour sign installations; major traffic incidents in the

vicinity such as freeway or street closures and major incidents affecting the environment such as earthquakes and inclement weather, such as rainy conditions.

- 2.10 CONSULTANT shall review all final work products before submitting to LADOT to ensure that the results are "reasonable." Any submittal with many instances of "zeros," or a "sudden drop" in volume between two 15-minute increments, generally indicates "bad" data and will not be accepted as a valid work product.
 - 2.11 CONSULTANT shall review all final work products before submitting to LADOT to ensure that the directions are correct. Many instances of incompatible data results from mislabeling the direction or street name of the traffic data collected.
 - 2.12 CITY's requests for a recount, without additional compensation, will be honored by CONSULTANT if the LADOT project manager identifies a count as grossly deviating from other counts conducted within the area, with sufficient back-up documentation. Sufficient back-up documentation consists of providing a copy of a valid LADOT count conducted within 12 months that shows a directional or total volume varying by greater than 5% of the consultant's submitted count, or a count conducted within two (2) years that deviates by greater than 8%.
 - 2.13 All work products submitted (both the raw data file and the summary sheets) must contain all relevant information from the Field Data Request form (e.g., intersection codes, street names, DOT district, direction of travel, etc.)
- 3.0 AUTOMATIC COUNT REQUIREMENTS.** Daily (24-Hour) vehicular volume counts shall be collected and recorded as follows:
- 3.1 LADOT shall request an automatic count from CONSULTANT using the Field Data Request Form, or similar, as shown in Exhibit A.
 - 3.2 *Raw Data.* CONSULTANT shall record and provide field "raw data" in electronic format, with an appropriate file name, with the accompanying software to read said raw data. Pre-approved formats of raw data currently accepted by LADOT, without the need to provide accompanying software, include the following: *.jdf or *.rdf by TimeMark. All other formats shall get pre-approval from LADOT before commencing. File naming convention samples for the *.rdf file is provided in Section 8.2 below.
 - 3.3 *CSV format.* CONSULTANT shall export the raw data into 15-minute interval data "CSV format" with the following file naming convention: xxxxxxxxxx_yymmdd_D, whereby "xxxxxxx" is the automatically generated intersection street code as typed into the saved raw data file,

"yymmdd" is the automatically generated date of the count and "D" is the direction of travel (e.g., "N," "S," "E," or "W") which the consultant must type in. A sample CSV export file is provided as Exhibit B.

- 3.4 *Count Summary.* CONSULTANT shall provide a "24 Hours Traffic Volume" Automatic Traffic Count Summary sheet, with all cells filled out, as shown in Exhibit C. Count summary analysis data shall be compiled in 15-minute intervals. LADOT will provide CONSULTANT with the pre-approved spreadsheet to convert 15-minute export data into the "Exhibit C" format. File naming conventions for the spreadsheet file is provided in Section 9 below.
- 3.5 Each count performed should be saved as a separate spreadsheet file. (Do not create one spreadsheet file for the entire request batch with separate tabs for each count). CONSULTANT shall ensure that unique file names are established for each count. If there is a conflict in file naming convention, CONSULTANT shall contact LADOT for alternative naming conventions.
- 3.6 Survey of a typical four-legged intersection generally would require at least two Automatic Traffic Count Summary sheets, one for the "North-South" street being counted, and another for the "East-West" street. More complicated intersections would require additional sheets as necessary.

- 3.7 CONSULTANT shall transmit the "raw data" (*.jdf or *.rdf) file, CSV file, and Automatic Count Summary (spreadsheet) in electronic format. Additionally, a hard copy of the Automatic Count Summary sheet shall be submitted per Section 8 below.
- 3.8 A Field Data Request may be for a one-day count, or a multiple-day count at a location. The great majority of requests will be for a one-day (24-hour period) count. Three-day counts and seven-day counts are a small percentage of the total count requests.
- 3.9 Automatic Traffic Count Summaries shall be displayed starting at 12 a.m. and ending at 12 a.m. On occasion, LADOT's program conditions may require counts to be conducted during different hours.
- 3.10 Counts shall be recorded for one or all approaches to, or departure from, the intersection as required on the Field Data Request form.
- 4.0 MANUAL COUNT REQUIREMENTS.** Manual counts shall be collected and recorded as follows:
 - 4.1 LADOT shall request a manual count from CONSULTANT using the Field Data Request Form, or similar, as shown in Exhibit A.
 - 4.2 Counts shall be collected during the morning peak hours between 7 a.m. and

10 a.m., and the afternoon peak hours between 3 p.m. and 6 p.m. LADOT's program conditions may require that some counts be taken during hours different than above.

- 4.3 *Raw Data.* The Consultant shall record and provide Field Data sheets, as shown in Exhibit D, with all cells filled out. The Field Data sheets consist of a field diagram form and the 4-page default data sheets generated from Petra software by Jamar. Format deviation from the "raw" Field Data sheets will not be accepted, without written pre-approval from the Project Manager. Without exception, "raw data" shall be recorded in 15-minute intervals.
- 4.4 *CSV format.* CONSULTANT shall export the raw data into "CSV format" with the following file naming convention: *zzzzzzzz_yymmdd*, whereby "zzzzzzzz" is the intersection street code and "yymmdd" is the date of the count. Please note in this and all instances that yy (the Year of the count), precedes mm (month of the count) and dd (date of the count).
- 4.5 Manual Traffic Count Summary data shall be summarized as shown in Exhibit E. LADOT will provide CONSULTANT with the pre-approved Traffic Count Summary spreadsheet for their use.
- 4.6 CONSULTANT shall transmit the manual count raw data, CSV file(s) and Manual Traffic Count Summary (spreadsheet) data in electronic format. Additionally, a hard copy of the Automatic Count Summary sheet shall be submitted per Section 8 below.
- 4.7 Counts shall be recorded for all traffic movements (e.g. left turn, through, right turn) for each approach to the intersection.
- 4.8 Counts shall be recorded with separate vehicular counts for different classifications of vehicles, including cars, trucks, and buses, if so directed by LADOT project manager.
- 4.9 Counts shall be recorded to include the number of pedestrians crossing each leg of the intersection, if so directed by LADOT project manager.
- 4.10 Counts shall be recorded with separate pedestrian counts for school age children, when school is in session, if so directed by LADOT project manager.
- 4.11 Counts conducted for the Congestion Management Program (CMP)

Counts conducted for the biennial CMP shall be conducted in accordance with CMP requirements, as generally detailed in various sections of this Section II and in the sample "Traffic Count Requirements 2011 Congestion Management Program Highway Monitoring" attached as Exhibit H. Additionally, for the CMP counts Quality Control Measures will include, but

not be limited to, the following:

- Traffic counters will wear uniformly colored vests so as to be identifiable to City staff monitoring the counts.
- Traffic counters will be stationed close to the intersections, with unobstructed views of the intersections, to facilitate accurate counting of the cars.
- Traffic counters will refrain from using cell phones while performing the counts.
- Except for older traffic counters and only when it does not interfere with the quality of the traffic counts, consultant will not permit traffic counters to count from their cars. In the event an older worker is stationed in a car, consultant agrees to call the City in advance to inform the City of the make, model, and color of the car.

The CMP Project Manager will confirm the dates when valid CMP counts can be collected when assigning work.

5.0 DAILY VOLUME-SPEED SURVEYS. Daily (24-hour) volume-speed surveys shall be collected and recorded as follows:

- 5.1 LADOT shall request spot speed studies from CONSULTANT using the Field Data Request Form, or similar, as shown in Exhibit A.
- 5.2 CONSULTANT shall record and provide a summary report and field data sheets, with all cells filled out, as shown in Exhibit F, in both electronic and hard copy formats.
- 5.3 CONSULTANT shall record and provide field "raw data" in electronic format, with an appropriate file name, with the accompanying software to read said raw data. Pre- approved formats of raw data currently accepted by LADOT include those from "Nu- Metrics." All other formats shall get pre-approval from LADOT before commencing.
- 5.4 Both "raw data" and the export of the report to PDF or CSV format should follow the same naming convention, with the appropriate file extension.
- 5.5 A file naming convention for Speed Volume Survey data is provided in Section 9 below. (e.g., 50eoBro030708.*)
- 5.6 The volume-speed data shall be collected simultaneously using equipment which records both types of data.
- 5.7 Surveys shall be conducted at locations situated away from the influence of traffic control devices, e.g., stop signs, traffic signals, speed humps, horizontal

curves, vertical curves, etc. Locations where vehicles will be accelerating or decelerating must be avoided. Care should be given to avoid other roadway geometry or conditions, such as driveways, which would influence free flow speeds. Generally, locations approximately 200 feet away from the intersection or "mid-block" are ideal.

- 5.8 Surveys shall be conducted in a manner that results in valid speed and volume data for a consecutive 24-hour period.
- 5.9 Surveys shall be recorded in half-hourly intervals summarized as shown in Exhibit F, or other similar approved format provided to CONSULTANT.
- 5.10 Surveys shall be conducted in both directions, unless otherwise specified by LADOT.
- 5.11 Surveys shall record separate vehicular counts for different classifications of vehicles (e.g., passenger cars, small trucks, trucks/buses, tractor trailers, etc.).
- 5.12 Surveys shall record speeds in maximum increments of 5 miles per hour (mph).

6.0 OTHER SURVEYS

CONSULTANT services may include other types of traffic engineering surveys (e.g., Left Turn Delay, Spot Speed Radar, Speed and Delay, etc.), if these services are listed on the CONSULTANT's proposed unit cost rate sheet for types of survey counts. These surveys shall be conducted in accordance with the latest adopted procedures in effect on the date the survey is conducted per the appropriate section(s) in Fundamentals of Traffic Engineering, published by the University of California, Institute of Transportation Studies.

7.0 ADVANCE NOTIFICATION OF DATA COLLECTION SCHEDULE

CONSULTANT shall provide a weekly schedule of surveys to be conducted at least three days prior to the start of data collection. These schedules may be provided electronically via e-mail to LADOT.

8.0 PRODUCT SUBMISSION

- 8.1 CONSULTANT shall provide the survey results within 15 working days from the date the LADOT request is sent.
- 8.2 Survey data files must be submitted to LADOT in electronic format per the chart below. Summary Data (as shown in Exhibits C, E and/or F) shall also be submitted in printed format.

Type of Count	Type of file	Typical file name
Automatic		
Raw Data	*.jdf or *.rdf	ArlWas060617n.rdf (for northbound) ArlWas060617s.rdf (for southbound) WasArl060617w.rdf (for westbound) WasArl060617e.rdf (for eastbound)
CSV Export	*.csv	0356077640_060617_N.csv 0356077640_060617_S.csv 7764003560_060617_E.csv 7764003560_060617_W.csv
Summary Data (Exhibit C)	*.xls	One of the following file names ArlatWas060617.xls or ArinoWas060617.xls or ArIsoWas060617.xls And one of the following file names WasatArl060617.xls or WaswoArl060617.xls or WaseoArl060617.xls
Manual		
Raw Data	Jamar	SotWas030709
CSV Export	*.csv	SotWas030709.csv
Summary Data (Exhibit E)	*.xls	SotWas030709.xls
Speed-Volume		
Raw Data	Nu-Metrics	50eoBro030708
CSV Export or PDF of Report (Exhibit F)	*.csv or *.pdf	50eoBro030708.csv or .pdf

- 8.3 Electronic files may be sent via CD-ROM, USB jump drive, or e-mail.
- 8.4 With prior written agreement by the Project Manager, files using the accepted format can be e-mailed to the Project Manager. At no point shall the cumulative file size of the email attachments exceed 5 MB in size. CONSULTANT must ensure file accuracy and check the total file size prior to any e-mail submittal. The e-mail should be descriptive and contain a list of files sent in the body of the e-mail.
- 8.5 For daily volume-speed surveys, manual traffic counts AND automatic traffic counts, CONSULTANT shall provide all "raw data" electronic files downloaded from the sensor/machine and a licensed copy of the software program needed to read the files. A file naming convention summary is provided above.

- 8.6 For manual and automatic traffic counts, the TRAFFIC COUNT SUMMARIES format (row/column location of data, width of data columns, font style, etc.) must conform to the LADOT template, to be provided upon execution of the contract.
- 8.7 *Submittals.* CONSULTANT shall provide a Traffic Count Summary Listing of all files being submitted in a given request batch. The Count Summary Listing shall be in either Microsoft Excel or Access format, and be sorted in ascending alphanumeric order by low order street name. The file should contain the following information at the top: Batch Request Date.

The file should then list the "batch" of data files being submitted with the following information: complete description of location (e.g., 1st St W/O Main St; Central Ave AT Grand Ave), complete electronic file name, type of count (auto/manual/speed- volume), date of Field Data Request, date of Count and intersection code from the Field Data Request form. CITY shall provide a template of the Count Summary Listing format to CONSULTANT.

- 8.8 For automatic and manual traffic counts, CONSULTANT shall organize each "hard copy" product submission as follows, all in alphabetical and corresponding order, for each batch of request: The printed Count Summary Listing; a copy of the Field Data Request form (Exhibit A) for each request in the batch; a corresponding printed Field Data Sheet, Exhibit B (or D if it's a manual count); and a Count Summary Sheet (Exhibits C, E or F).

9.0 FILE NAMING CONVENTIONS

CONSULTANT shall utilize the file naming conventions listed below. CONSULTANT shall contact CITY Project Manager for alternative file naming conventions should duplication of file names occur. In all instances of yymmdd, the year shall precede the month, which shall precede the date.

- 9.1 For the Automatic Traffic Count Summary spreadsheet electronic file (Exhibit C), first three characters of the primary street name; qualifier clarification (i.e., "at", north of "no", south of "so", east of "eo", or west of "wo"); first three characters of the cross street name and the date (yymmdd) on which the count was performed. For example, if an automatic count were conducted for the approaches to the intersection of Arlington Av. and Washington Bl., on March 16, 2006, then the file names would be ArlatWas060316.xls and WasatArl060316.xls. If the counts were conducted for each of the legs of the same street, the corresponding name would be ArlnoWas060316.xls, ArlsoWas060316.xls, WaseoArl060316.xls or WaswoArl060316.xls
- 9.2 For the Manual Traffic Count Summary spreadsheet electronic file (Exhibit E), first three characters of the low order street name; first three characters of the

high order street name; and the date (yymmdd) on which the count was performed. For example, if a manual count were conducted for the intersection of Academy Rd. and Morton Av., on March 16, 2006, then the file name would be AcaMor060316.xls.

- 9.3 For speed-volume electronic files, street being surveyed; descriptor (such as east of "eo", etc.); the first three characters of the nearest cross street name and the date (yymmdd) on which the count was performed. For example, if a speed-volume survey were conducted for 50th St east of Broadway on April 20, 2006, the file name would be "50eoBro060420.*", whereby "*" would be the appropriate file type extension (Jamar raw data, csv or pdf).

10.0 QUALITY CONTROL

- 10.1 CONSULTANT shall identify and maintain quality control measures and standards to ensure traffic engineering surveys are conducted properly, and that the data is accurately captured and reported. LADOT will randomly conduct quality assurance reviews. This could include inspections of field crew performance, inspections of the installation of field equipment to verify appropriateness, and/or verifying test counts using cameras or LADOT personnel.

- 10.2 CONSULTANT is required to follow manufacturers' recommended maintenance on all survey equipment. LADOT may require a maintenance schedule from CONSULTANT to assure compliance.

- 10.3 All faulty surveys containing missing details and/or inaccurate data or information shall be redone at CONSULTANT's cost within one week after LADOT directs CONSULTANT to do so. Fabrication of data and repeated faulty surveys will not be tolerated by LADOT and could result in the termination of the contract.

11.0 DEFINITIONS OF TYPES OF TRAFFIC COUNTS - REQUESTED PROPOSED COSTS

For purposes of this RFP, proposers are requested to submit unit pricing for the various types of traffic survey counts listed below. The definitions provided below generally describe the types of traffic counts, however LADOT may, to a minor degree, revise these definitions for purposes of the contract between the City and selected contractor(s). The counts described in this Part 11.0 are either automatic or manual counts. The definitions below supplement, but do not replace, the descriptions of traffic count requirements provided elsewhere in this Section II.

Daily Automatic Traffic Counts

Cost for one location containing information for both approaches, and the cost associated with the installation / removal of one machine (automatic counter). Counters are typically installed in sidewalk area and secured by attaching to trees or street light poles. The count tube is then extended to the centerline of the street and nailed down to the pavement. They are primarily installed on major streets.

Speed/Volume Surveys (by sensor)

Cost for one location containing information for both approaches, and the cost associated with the installation / removal of one machine (sensor). Typically survey sensors are installed in middle of traffic lane directly nailed down on the street pavement. They are only used on local or collector streets to collect 24-hour speed and volume data.

Manual Counts (usually needed during AM and PM peak periods)

~~Cost for one intersection containing information on all approaches. Staff must personally observe the moving vehicles to record items not able to be detected by machine, such as turning cars, and pedestrian and/or special vehicle classifications.~~

Costs for two-person, three-person and four-person counts for combined AM and PM peak hour periods.

Gap Counts (i.e., Traffic Gap Study)

Traffic gap studies identify intervals between passing cars that are "safe" for pedestrian crossing, generally at intersections lacking either signals or stop signs. The "minimum gap" time (G) for pedestrian crossings is defined as the width of the street (W) divided by the rate of pedestrian travel (3.5 feet per second). After calculating the minimum gap time, consultant will count the number of traffic gaps available for pedestrian crossing of non-signalized intersections (which exceed the minimum gap time) for each 15-minute reporting period. The City will provide a sample Traffic Gap Study summary form at the request of contractor and/or shall approve a similar reporting form before start of work. Consultant will not count cross traffic making turns onto the street as vehicles breaking the "gap" available for pedestrians crossing the street being studied.

Cost for one location containing data for two (2) hours during the AM peak and two (2) hours during the PM peak, provided in 15-minute increments. Peak times

vary by location and should be determined by reviewing past data to determine the time periods with the heaviest traffic to conduct the Traffic Gap Study (generally, but not always, 7-9 am and 3-5 pm).

Spot Speed Count

Cost for one location containing data for each direction on the requested street. Speed can be determined by any one of the methods below depending on the street type/designation, with concurrence from City prior to commencing work: radar detection, roadway tube counters, "Nu-Metrics" Traffic Analyzer, etc. Those using radar should be certified for use of such equipment. Radar equipment should be calibrated according to adopted standards. Roadway tube counters can only be used on streets where the manufacturer has indicated that speed data can be collected within certain roadway geometry specifications and tube layout installations.

Data should be provided in 15-minute increments, with supporting raw data provided upon request.

Costs for 1-hour, 8-hour and 24-hour periods

Bicyclists and Pedestrians on Sidewalk

Cost for one location on a "corridor" that counts bicyclists or pedestrians on the main corridor on each side of the street as well as pedestrians (or bicyclists) crossing mid-block within the identified corridor. The cost for one location should contain data for the specified period broken down into increments of 15 minutes, with supporting raw data provided upon request.

Costs for 1-hour and 4-hour periods. The 4-hour periods may be continuous or divided into two (2) hours during the AM peak and two (2) hours during the PM peak. Peak times may vary by location.

Pedestrian Crossing Only Counts (usually needed during AM and PM peak periods)

This is the same as the "manual counts" description provided above but staff will only count pedestrians. Cost for one intersection containing information on all approaches. Staff must personally observe the pedestrians to record items not able to be detected by machine, such as age category of the pedestrian (e.g., "under 12," "over 65," etc., and/or those with special classifications (those with strollers, wheelchairs, etc.)

Costs for two-person, three-person and four-person counts.

12.0 VIDEO COUNTS AND VIDEO BACK-UP – PROPOSED COSTS

LADOT is aware of the recent trend toward traffic counts based upon video recording, whereby a video is made of the subject intersection etc. and then traffic counts are made by viewing the video recording in the consultant's office. This approach is distinct from the traditional approach of manual on-site traffic counts.

If the consultant is able to provide counts based on video recordings, for any or all of the types of counts described in Part 11.0 above of this Section II, please indicate the costs of such counts based on video recording. In this case, please also indicate the additional cost, if any, of a copy of the video recording being provided to LADOT, in addition to the counts based on the video recording.

If video recordings are available as "back-up" documentation to manual counts, consultant should indicate in their proposal the additional cost of such video backup recording being provided to LADOT.
