

Bicycle Count Lending Program Guide



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Introduction

Counting bicycle traffic is a fundamental step in active transportation planning. In order to facilitate the collection of bicycle traffic data, the New Mexico Department of Transportation (NMDOT) invested in 25 bicycle counters to encourage and support non-motorized traffic counting by Tribal and Local Public Agencies (T/LPAs), Metropolitan Planning Organizations (MPOs), and Regional Transportation Planning Organizations (RTPOs) in New Mexico (hereafter referred to as Hosts). NMDOT's bicycle counter equipment is available on loan to Hosts for specific project needs free of charge. To reserve and use the equipment, the Host will need to complete an application, provide proof of insurance, enter into an Equipment Use Agreement, and obtain a <u>NMDOT Roadway Work Permit</u> if counts are to be conducted on NMDOT facilities. The typical length of the loan is 3-4 weeks. Hosts may borrow up to four counters at a time, unless otherwise approved.

This voluntary arrangement between NMDOT and the Host is intended to facilitate the work of the respective organizations, and to provide a sound technical basis for the recommendation and implementation of active transportation plans, projects, and programs.

This guide covers information on borrowing bicycle counter equipment, site selection and installation of counters, monitoring data collection, and data management. The guide is designed as a companion to the <u>TRAX Cycles Plus User's Manual</u>.

Why Count Bicycles?

Collection of bicycle count data is an emerging field and area of interest; there is much to be learned from bicycle data. Potential uses of bicycle count data include:

- Evaluate programs and/or facilities
- Determine travel patterns + demand
- Bike-to-transit data
- Data for project applications
- Data for studies and master plans

- Track trends over time
- Plan and design future facilities
- Cycling safety assessment
- Cycling-related emissions reductions
- Cycling-related health benefits

Currently, bicycle count data collection is founded on the same principles of motor vehicle traffic count data collection. However, there are some key differences, including lower traffic volumes, higher variability in traffic volumes, and the fact that bicycle travel patterns are more weather dependent than vehicular travel patterns.

This guide describes best practices for short-duration, non-motorized counts. Short duration counts are typically between a few days to several weeks in length. While short duration counts cannot be used to establish certain data trends, such as hourly patterns or develop a statistical basis for extrapolation of the data, there are beneficial data that can be obtained. Short-duration bicycle count data include:

- Average daily and hourly bicycle volumes
 - o Weekday and weekend
- Day-of week volumes and directional data
- Estimated number of sidewalk riders

Bicycle Counter Equipment

Before collecting data with the bike counter it is essential for the user to become familiar with the operation of the counter and how to properly install, maintain and troubleshoot the equipment. Generally, bicycle counting equipment is more sensitive to installation details than similar equipment for motor vehicle counting. For this reason, this guide and the <u>TRAX Cycles Plus User's Manual</u> are required reading for NMDOT Bicycle Count Program Hosts.

NMDOT's counters are "Jamar TRAX Cycles Plus, GPS," an automatic traffic recorder using pneumatic tubes designed and built by JAMAR Technologies, Inc. The counter is powered by a long-life lithium battery that does not require charging, and is equipped with a global positioning system (GPS) to identify the count location.

How it works	Two rubber tubes are stretched across the right-of-way and record when a bicyclist passes over them. When a bicycle or other vehicle passes over the tubes, pulses of air pass through a detector which deduces the vehicles axel spacing and thereby classifying the vehicle type. The counters collect bicycle and motorized traffic volume and direction.
Advantages	Familiar technology to mode jurisdictions; widespread use by data collection firms;
	portable and easy to set up; battery powered; and captures directionality.
Drawbacks	Susceptibility to theft, vandalism, and wear-and-tear; potential tripping hazard for
	pedestrians; not appropriate in cold weather conditions; deterioration under high
	use thus reduced accuracy; on-site data downloading; and inability to accurately
	detect side-by-side riding.
Typical location	On-road bikeways and bike paths.
Speed ranges	The counter has settings for low speeds (under 10mph) and higher speeds (10-
	60mph) that help improve the accuracy of the count.

NMDOT and Host Responsibilities

- The Host is responsible for pick up, installation, field checks, and removal and return of equipment to the NMDOT Office in Santa Fe.
- For each counter borrowed, NMDOT will provide:
 - o JAMAR Technologies, TRAX Cycles Plus
 - Two (2) 50' 1/8" diameter pneumatic road tubes
 - o Installation hardware (PK nails, road tape, tube fixtures)
 - o One (1) Steel Chain
 - One (1) Lock and key
 - o TRAXPro Traffic Data Analysis Software-Version 2
 - o USB 2.0 A to B Male to Male Cable
 - NMDOT Bicycle Count Loan Program Guide
 - o TRAX Cycles Plus User's Manual
 - o <u>TRAXPro User's Manual</u>

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- The Host is responsible for providing:
 - One (1) handheld sledge hammer-at least 3lb
 - One (1) pry bar
 - Safety equipment for all persons in the field, to include:
 - Safety glasses
 - Hardhat
 - High Visibility Safety Vest
 - At least Two Advanced Warning Traffic Cones
- Items not required, but recommended: knee pads and work gloves for field work. A bicycle is recommended to test the installation.
- The Host should take photographs of the installation for documentation.
- If the NMDOT equipment is damaged during the borrowing period, the Host must document the damage and report it to the NMDOT Bicycle Count Program Coordinator as soon as possible.
- The Host should plan to conduct a field inspection approximately every 3 days. This timeframe depends on the count location, expected traffic, or unexpected weather events at the site. Use of professional judgment is encouraged.
- If during a field inspection, or if the data indicates an issue, the Host is responsible for examining the counter, tubes, and other equipment. If repairs are necessary, the Host is responsible for replacing the appropriate equipment and informing NMDOT staff of the necessary repairs.
- Upon completion of the count, the Host is responsible for site cleanup including the removal of tubes, clamps, nails, and anything that might be a hazard to motorists, bicyclists and other users.
- NMDOT may recall the equipment on loan to the Host at any time.
- The Host may not borrow more than four counters at any time, unless previously authorized.
- NMDOT requires the submittal of all collected data collected to the designated NMDOT program contact. Any information and data collected using NMDOT equipment may be used by NMDOT, free of charge.
- The Host is responsible for understanding and complying with all applicable and required safety considerations. See the next section for additional details.

Working with the NMDOT District

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Before bicycle counts are undertaken on NMDOT right-of-way, a roadway work permit is required. The Host shall complete and submit an <u>NMDOT Traffic Control/Roadway Work Permit</u> application to the appropriate NMDOT District Traffic Engineer and copy the Bicycle Count Program Coordinator (click here for <u>District Engineers and Contact Information</u>).

Safety, Planning, and Installation

Safety

The Host shall follow all NMDOT safety procedures in regards to equipment, apparel, vehicles and traffic control. NMDOT requires, at a minimum, that a hard hat and safety vest are worn while working in the right-of-way (Hard Hat – ANSI Z89.1, High Visibility and Safety Vest – ANSI Class II (day) or ANSI Class III (night)). NMDOT recommends that Host employees wear steel toed work shoes and safety glasses when setting traffic counters. Gloves are recommended when handling the counters as insects may be present.

The complete set of NMDOT safety procedures is available online at the following URL: http://dot.state.nm.us/content/dam/nmdot/Infrastructure/DesignManual/0900 Work Zone.pdf

NMDOT follows the Manual on Unified Traffic Control Devices (MUTCD), which contains the national standards governing all traffic control devices. Pertinent information and considerations for installation of bicycle counting devices are in Chapter 6 of the MUTCD. The entire document is available online at the following URL: https://mutcd.fhwa.dot.gov/pdfs/2009/pdf_index.htm

Planning and Site Selection

The number of bicycle counters needed depends on the data needed and how it will be used by the Host. Generally, bicycle counts are conducted at multiple locations along a corridor to capture traffic and travel patterns in proximity to a site or corridor of interest.

When determining the timing of counts there are several factors to consider. Generally the late spring, summer, and early fall are the best times to conduct counts to avoid inclement weather. In addition to the seasonality of the count, consider other factors that may that may impact the efficacy of the count, such as school schedules, regional events, timing and weather. Consider the following scenarios:

- You are conducting a count near a school. Is school in session?
- You are conducting a pre-project count in the north valley of Albuquerque in the fall. Do your count dates coincide with Balloon Fiesta?
- You want to understand how many people use a newly constructed multi-use path in your community. Are people aware of and using the path as part of their daily routine?
- You want to count the number of bicycle trips in your downtown plaza area. Are there events scheduled that will impact the counts and do you want to capture that information?
- You are about to install the counters and see the weather forecast is predicting intense thunderstorms for the next two days. Consider contacting the program contact and requesting the equipment for a longer period of time to miss the rain event.

The following National Bicycle and Pedestrian Documentation (NBPD) Project criteria are recommended for short-duration counts (typically between two days and several weeks):

- Pedestrian and bicycle activity areas or corridors (downtowns, near schools, parks, etc.);
- Representative locations in urban, suburban, and rural locations;
- Key corridors that can be used to gauge the impacts of future improvements;
- Locations where counts have been conducted historically;

- Locations where ongoing counts are conducted by other agencies through a variety of means, including videotaping;
- Gaps, pinch points, and locations that are operationally difficult for bicyclists and pedestrians (potential improvement areas);
- Locations where either bicyclist and/or pedestrian collision numbers are high.

Select locations that meet as many of the criteria as possible. Once general monitoring locations have been identified, the most suitable counter positioning should be determined. The NBPD Project recommends the following guidance for counter positioning:

- Locations near the major access points are best for multi-use paths and parks.
- Locations where few, if any, alternative parallel routes exist are best, for on-street bikeways.
- A location near a transit stop or in the center of downtown is best for traditional downtown areas.
- A location near the main entrance and at a transit stop is best for shopping centers or malls.
- The main access roadway or near off-street multi-use paths is best for employment areas.
- Locations near higher density developments or near parks and schools are the best.

Additional considerations from the <u>Transportation Research Board's Bicycle and Pedestrian Data</u> <u>Subcommittee</u> include:

- Choose smooth sections of trail/pavement: when selecting sites, it is best to select areas where smooth section of trail/pavement is present.
- Avoid vandalism: be sure to lock the counter.
- Label counters: make sure the counter is discreetly labeled with your organization's contact information so avoid it being confused with trash or explosives.
- Look for bugs: insects can make a nest in the counter. When selecting a site, try to avoid locations that have a lot of wasps, ants, or other insects that can get inside the counter.

Coordination and Installation

Notify your public works, parks, or other relevant department of the planned installation to ensure that street sweeping or other events will not occur during the count. If the count will occur on a NMDOT facility, submit <u>the necessary Roadway Work Permit</u> to the appropriate NMDOT Traffic Engineer prior to locating the counter(s).

Please refer to the <u>TRAX Cycles Plus User's Manual</u> for installation methods. The manual provides details and instructions on installation, tube length, and tube layout with six layout options described with their corresponding counter settings and tube spacing requirements.

JAMAR has a short instructional demonstration that covers installing road tubes for the collection of data with the TRAX Plus automatic traffic available on <u>JAMAR's website</u>. JAMAR also produced a short video demonstrating the installation of tubes available on YouTube titled <u>"Setting Up Road Tubes."</u>

Installation Tips

- Find a location where the counter can be secured next to the street without the large tubes crossing over the sidewalk. Neatly coil any extra tube in an out-of-the-way location.
- Place reinforced duct tape over the ends where the nails are during warmer temperatures.

- Avoid counter locations where tubes are nailed down in the path of vehicle tires to avoid wear and tear on the fasteners from a high volume of vehicle traffic.
- Be careful not to hammer in the nail beyond the level of the street. This can damage the fastener and make it difficult to remove the nail.
- Locate tubes away from intersections, driveways, blind curves, or where trash cans are placed.
- Make sure tubes are installed perpendicular to the flow of traffic to prevent damage to tubes.

Count Duration

Generally, the minimum suggested count duration is 7 days, so that weekdays and weekends are captured in the data set. Depending on other factors (e.g. day-to-day count variability, the number of short-term monitoring sites, and environmental factors including season, temperature, and precipitation) the preferred duration of short-term automatic counts could be as long as 14 days at each location.

Maintenance and Troubleshooting

Pneumatic tubes generally require little maintenance; however, NMDOT recommends that Hosts check the pneumatic tube setup frequently (roughly every three days) for proper performance. Detached tubes, wear from traffic impacts, or vandalism can affect performance.

The most common field check issues are: broken nails, broken fasteners, pinched tubes, and broken tubes. First, check to ensure that the nails and fasteners are still in place. Next, check to see if there are any small cracks or tears in the tube. These can be sealed by taping with reinforced duct tape around the crack or tear. If the counter is still not working, replace one tube (whichever looks older or more taped up), then replace the other tube if necessary. If none of these solutions work, a new counter box will need to be acquired from NMDOT, and the old counter box returned to NMDOT offices for further troubleshooting.

The TRAX Cycles Plus has a utility function that allows performance of diagnostic tests on various features of the counter to ensure they are operating correctly. Tests include: memory test, display test, keypad test, and tube test. The <u>TRAX Cycles Plus User's Manual</u> provides detailed instructions for running the diagnostics.

TRAX and Bicycle Count Data

Data can be offloaded in two ways from the TRAX Cycles Plus Counter: downloading directly to a computer using a USB port, or using a USB flash (or jump) drive. For additional instructions on downloading data from the counter, see the <u>TRAX Cycles Plus User's Manual</u> starting on page 2. TRAX Cycles Plus data is designed to be processed by TRAXPro Software.

TRAXPro Software

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With TRAXPro Software, you can easily download and process data collected, create an Excel-compatible spreadsheet of every bicycle and vehicle recorded in a study, view a spreadsheet of the results and produce professional-quality, comprehensive reports. The TRAXPro software is available for download online or is provided by NMDOT. JAMAR Technologies has developed a comprehensive <u>Manual</u> available on the JAMAR website, along with a comprehensive video tutorial that introduces the software program.

Data Analysis

Data analysis involves a variety of procedures to inform planning, engineering, and decision-making. Procedures for calculating and adjusting basic statistics are well developed for motorized traffic and these procedures can be adapted to bicycle counts. In many cases, however, data analyses are specific to particular projects. Minnesota's Bike and Pedestrian Data Collection Manual offers case studies from communities in Minnesota to illustrate approaches to analysis and use of non-motorized traffic data.

Count Validation and Data Sharing

The first part of count validation is to ensure counters are operating properly and recording counts accurately at the time of installation and beginning of the count. The Host must determine that the counter is operating properly and recording counts accurately each time the portable equipment is set up. TRAX suggests installing the sensors and then observing the device when motorized vehicles and bicyclists pass to ensure they are counted. In areas where bicycle traffic is low, use a bicycle to test the device.

Quality assurance/quality control (QA/QC) is an essential part of all traffic data management programs. Procedures for motorized traffic monitoring data are well established but cannot be applied directly to non-motorized data because traffic volumes are typically lower and much more variable.

Turner et al. (2013)¹ advises the following steps in QA/QC for non-motorized traffic data:

- Visual inspection of data.
- Assessment of potential for outliers.
- Assessment of zero counts.
- Use of professional judgment to make final decisions about counts to include or censor from a • dataset.

The host shall share all data collected in the raw format downloaded from the TRAX Pro Plus devise with the NMDOT program contact via email or upload the data to the NMDOT FTP server, as directed.

Bicycle Count Resources

- NMDOT District Engineers and Contact Information
 - http://dot.state.nm.us/content/nmdot/en/Districts.html
- NMDOT Roadway Work Permit
 - o http://dot.state.nm.us/content/dam/nmdot/Infrastructure/ROW Permits/Traffic Contr ol-Roadway WorkPermit.pdf
- NMDOT Safety procedures
 - o http://dot.state.nm.us/content/dam/nmdot/Infrastructure/DesignManual/0900 Work Zone.pdf
- JAMAR's TRAX Cycles Plus Manual is required reading for program participants.
 - o https://jamartech.net/Files/manuals/trax-cycles-plus-manual.pdf

¹ Turner, S., & Lasley, P. (2013). Quality Counts for Pedestrians and Bicyclists: Quality Assurance Procedures for Nonmotorized Traffic Count Data. Transportation Research Record: Journal of the Transportation Research Board, (2339), 57-67. Chicago

- TRAX data analysis program manual is an instructional and user friendly guide to the software. JAMAR has also produced tutorial videos that cover how to use the program. The manual and videos are available on the JAMAR website.
 - o <u>https://jamartech.net/Files/manuals/traxpro-manual-2.4.pdf</u>
- JAMAR has produced a short video introduction to installing the counters the video is available on YouTube titled "Setting up Road Tubes." Other agencies have also produced introductory videos that are available on YouTube.
 - o <u>https://youtu.be/_Hxej0MRg-w</u>
- Chapter 4 of the 2016 edition of the Federal Highway Administration Traffic Monitoring Guide includes a review of existing techniques and guidance for implementing traffic monitoring programs for non-motorized transportation.
 - o https://www.fhwa.dot.gov/policyinformation/tmguide/
- For a comprehensive introduction to non-motorized data collection refer to the Guidebook on Pedestrian and Bicycle Volume Data Collection (NCHRP Report 797).
 - o <u>http://www.trb.org/Main/Blurbs/171973.aspx</u>
- Minnesota Bike and Pedestrian Data Collection Manual provides a comprehensive look at bike and pedestrian counts.
 - o https://www.dot.state.mn.us/research/reports/2017/201702.pdf
- The Pedestrian and Bicycle Information Center produced two webinars on Bike and Pedestrian Count Data. Part 1 describes Programs, Data and Metrics. Part 2 describes the various types of equipment used for counts.
 - o http://www.pedbikeinfo.org/training/webinars_PBIC_LC_022117.cfm
- The TMG coding non-motorized information in the 2016 traffic monitoring guide format. The document offers detailed guidance and examples showing how to code counts and count locations in the TMG data format.
 - <u>https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/tmg_coding/page00.cfm</u>
- Guidebook on Pedestrian and Bicycle Volume Data Collection
 - o https://www.nap.edu/download/22223
- In 2015 the Bicycle and Pedestrian Count Technology Deployment Pilot Program was undertaken by 10 MPO's across the United States. Webinars presented to the count pilot participants have been edited for relevance to a broader audience and made available for free.
 - o <u>http://www.pedbikeinfo.org/planning/tools_counts_pilot_program.cfm</u>

Appendix A - Equipment Use Agreement

EQUIPMENT USE AGREEMENT Terms of Use for Hosting the New Mexico Department of Transportation Non-motorized Bicycle Counting Equipment

OWNER: New Mexico Department of Transportation (NMDOT) Government to Government Programs 1120 Cerrillos Road / P. O. Box 1149 Santa Fe, NM 87504 OWNER/NMDOT Name, Title Phone: Fax: Email address:

HOST: County, Municipality or Tribal Government

Address County, Municipality or Tribal Government Representative: Name, Title Phone: Fax: Email address:

1. Equipment.

OWNER possesses JAMAR Technologies, Inc. and TRAX Cycles Plus, GPS non-motorized bicycle counting equipment (Equipment). HOST wishes to borrow the Equipment for the purpose of collecting data. The HOST will store, manage, maintain the Equipment and will collect and manage data and pursuant to the instructions (procedures) identified in the instructional document, incorporated by reference and attached hereto as **Exhibit A**. HOST will set up sites and inform Representative of the OWNER of any concerns or suggestions with Equipment use; attend training provided by OWNER on how to use and maintain the Equipment. There is no fee for the use of the Equipment, but in exchange for use of the Equipment, HOST agrees to provide the raw data collected from the use of the Equipment to OWNER via email at no charge.

2. Equipment Use, Storage and Maintenance.

The Equipment is provided by OWNER to HOST "as is." HOST agrees to maintain the Equipment in a reasonable manner appropriate in the industry for its intended purpose during the period of use. HOST will clean, dry, and neatly organize the Equipment prior to the return to OWNER. During the period of use HOST must keep the Equipment in its possession and control, securing the Equipment for protection against loss or damage or any nature, and form theft. HOST will maintain contact with city road staff and only install during times when there are no scheduled street cleaning or maintenance operations.

If counts are to occur on NMDOT right-of-ways, the HOST shall notify the appropriate NMDOT District Traffic Engineer of all activities. Any issues (e.g. damage, theft) with the Equipment must be brought to the attention of OWNER's staff as soon as possible.

3. Period of Use, Delivery and Return of Equipment.

HOST agrees to pick up the Equipment from the OWNER on ______, 2019. HOST will return the Equipment to the OWNER on ______, 2019. If HOST fails to timely return the Equipment to the OWNER, the OWNER will not make future equipment loans available to HOST. NMDOT may, at any time, recall the equipment from the HOST.

4. New Mexico Tort Claims Act Liability.

either party shall be responsible for liability incurred as a result of the other party's acts or omissions in connection with this Agreement. Any liability incurred in connection with the Agreement is subject to the immunities and limitations of the New Mexico Tort Claims Act, NMSA 1978, Sections 41-4-1, *et seq.*, as amended. This paragraph is intended only to define the liabilities between the OWNER and the HOST, it is not intended to modify in any way, any liabilities as governed by common law or the New Mexico Tort Claims Act. The OWNER does not assume liability for any damages resulting from the installation or use of the Equipment. In no event shall OWNER be liable for any consequential, incidental, exemplary, or special damages whether in contract or tort, in any action connected with the Equipment or services described in this document. The HOST shall obtain liability insurance covering the events in the policy amount of one million dollars (\$1,000,000.00) per occurrence, which names the OWNER as an additionally insured. Sponsor shall provide OWNER with a certificate of insurance in a form satisfactory to OWNER as evidence of the insurance coverage prior to the event.

5. Equipment Check List:

The bicycle counter equipment that is on loan to HOST includes:

Equipment Description (include Serial Number)	Pick Up Date	Return Date	Condition/Notes

6. HOST RESPONSIBILITIES.

- A. Maintain a calendar schedule that tracks the dates and location of the counters.
 - 1. <u>The Host will follow the handbook entitled *Traffic Monitoring Guide* format for all data collected as found in the "Coding Nonmotorized Station Location Information in the 2016 Traffic Monitoring Guide Format."</u>
- B. Aim for installations of at least 7-14 days including two full weekdays and two full weekends (14 consecutive days is ideal). Considerations should be made for holidays, special events, whether or not schools are in session and proximity of schools or other attractors and any other mitigating factors. Weather can be a large factor in successful counts. As such, counts should be undertaken when minimal poor weather is expected including: prolonged rain or snow, prolonged temperature extremes (hot or cold). NMDOT will provide an instructional manual that describes how to set up the counters and how to best determine a site location.
- C. The HOST will be provided with the following equipment and instructional documents (equipment listed is for one count station):
 - 1. JAMAR Technologies, TRAX Cycles Plus, GPS
 - 2. Two (2) 50' 1/8" diameter pneumatic road tubes
 - 3. Installation hardware (PK nails, road tape, tube fixtures)
 - 4. One (1) Steel Chain
 - 5. One (1) Lock and key
 - 6. TRAXPro Traffic Data Analysis Software-Version 2
 - 7. USB 2.0 A to B Male to Male Cable
 - 8. NMDOT Bike Count Loan Program Guide (Exhibit A)
 - 9. TRAX Cycles Plus User's Manual
 - 10. TRAXPro_Manual
- D. The HOST will be responsible for providing:
 - 1. One (1) handheld sledge hammer-at least 3lb
 - 2. One (1) pry bar
 - 3. Safety equipment for all persons in the field, to include:
 - a.Safety glasses
 - b.Hardhat
 - c. High Visibility Safety Vest
 - d.At least Two Advanced Warning Traffic Cones
- E. The HOST shall follow all NMDOT safety procedures in regards to Equipment, apparel, vehicles, and traffic control, as described and referenced in the attached instructional document, **Exhibit A.**
- F. Follow procedures identified in the attached instructional document, **Exhibit A**, for reporting.

PICK UP OF EQUIPMENT:

NEW MEXICO DEPARTMENT OF TRANSPORTATION

Date

Printed Name, Title

Signature

<<COUNTY, MUNICIPALITY, TRIBAL GOVERNMENT>>

Date

<<Name, Title>>

Signature

RETURN OF EQUIPMENT:

NEW MEXICO DEPARTMENT OF TRANSPORTATION

Date

Name, Title

Signature

<<COUNTY, MUNICIPALITY, TRIBAL GOVERNMENT>>

Date

<<Name, Title>>

Signature

Appendix B - Bicycle Count Program Application



Bicycle Count Program Application

PROCESS

- 1. Applicant Host completes the application and submits it to the NMDOT Bicycle Count Program Coordinator.
- 2. If application is approved by NMDOT, NMDOT and the Applicant Host enter into a Cooperative Equipment Use Agreement.
- 3. Upon execution of the Agreement, the NMDOT program contact coordinates with the Applicant Host on pick up and return of equipment to and from NMDOT General Offices in Santa Fe.

APPLICANT CONTACT INFORMATION

Requesting Host Agency: Enter Name of Agency Name of contact person requesting equipment: Enter First and Last Name Title: Work Title Contact Telephone: Click here to enter text. Contact Email: Click here to enter text. List of staff (if applicable) who will handle the equipment: Include names of people working on installation if consultant.

BICYCLE COUNTER AND INSTALLATION DETAILS

- 1. Number of Bicycle Counters Requested (For guidance in identifying the number of counters needed, refer to the program guide and the <u>TRAX Cycles Plus User's Guide</u>): *Click here to enter text.*
- 2. Dates requested (Note: subject to change due to availability)
 - a. Proposed date to pick up equipment from NMDOT: Click here to enter a date.
 - b. Proposed date to return equipment to NMDOT: <u>Click here to enter a date.</u>
- 3. Identify the counter locations, including or street(s) or trail(s) name(s); type of facility (sidewalk/pathway/bike lane); closest cross streets; which side of road the counter will be installed on (north, south, east or west); and approximate feet from closest intersection, if applicable.

4. Location #1

Click	here	to	enter	text.
Location #2				
Click	here	to	enter	text.

Add additional locations as needed

5. Explain the purpose of the data collection.

Click	here	to	enter	text.

6. What factors exist that may affect the results of the count? How do you plan on minimizing these factors?

Click here to enter text.

PROOF OF INSURANCE:

Applicant must include proof of insurance with application.

NMDOT WORK PERMIT:

If bicycle counts are proposed within the NMDOT right-of-way, the applicant must submit an approved <u>NMDOT Work Permit</u>, obtained from the appropriate NMDOT district office and district traffic engineer, with the application.

ACKNOWLEDGEMENT:

I certify that I have read and reviewed the following documents, manuals and training information and will make this information available to employees installing or maintaining the NMDOT bicycle count equipment:

- ✓ NMDOT Bicycle Count Program Guide
- ✓ TRAX Cycle Plus Pro, GPS Manual
- ✓ JAMAR Technology Tube Installation Demo
- ✓ JAMAR Technology Road Tube Installation Video
- ✓ TRAXPro Traffic Data Analysis Software Manual

Contact Person at Host Agency (Print Name)

Signature_____

Date

RETURN THIS FORM TO:

Maggie Moore Email: <u>Maggie.moore@state.nm.us</u> Phone: 505-470-4705