

**LOCKWOOD  
DECLARATION**

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

FIVE BOROUGH BICYCLE CLUB,  
SHARON BLYTHE, JOSH GOSCIAK,  
KENNETH T. JACKSON, MADELINE  
NELSON, ELIZABETH SHURA, LUKE  
SON,

Plaintiffs,

- against -

THE CITY OF NEW YORK; RAYMOND  
KELLY, Police Commissioner of the New  
York City Police Department; JAMES  
TULLER, Commanding Officer, Patrol  
Borough Manhattan South; Lt. John Doe,  
and Captain Jane Doe, New York City  
Police Department,

Defendants.

07 Civ. \_\_\_\_\_

I, Ian Lockwood, hereby declare as follows:

1. My name is Ian Lockwood.
2. I received my bachelor's degree in Civil Engineering from Carleton University in Canada in 1987. I earned my Master of Civil Engineering degree from Carleton University in 1995. I am a Professional Engineer as of 1991 and I am registered in the Province of Ontario. I served as a Military Engineer in the Canadian Army (reserves) from 1978 to 1988. I worked as a Transportation Engineer for J.P. Braaksma & Associates Ltd. in Ontario from 1987 to 1996. I was a City Transportation Planner for the City of West Palm Beach, Florida from 1996 to 2001.

3. I have worked for Glatting Jackson Kercher Anglin, Inc. ("Glatting") as a Senior Transportation Engineer since 2001. My work includes planning street networks and designing streets that are multimodal in nature. I make this Declaration in support of Plaintiffs' Motion for a Preliminary Injunction in this matter.

4. My expertise is in traffic calming, transportation planning, street design, and site design.

5. I have published several papers on traffic calming and have spoken at many conferences about transportation planning, revitalizing cities, and street design. A copy of my resume/CV is attached.

6. I was asked by Plaintiffs in the above matter to reach a conclusion as to how much space group bicyclists riders occupy on the street during their rides. I examined a DVD from a group bicycle ride taken on a city street in New York City on March 18, 2007 at the intersection of 39<sup>th</sup> Street and 2<sup>nd</sup> Avenue in Manhattan. The DVD was provided to me by Debevoise & Plimpton LLP.

7. The DVD shows an approach to the intersection. The ride progresses past the view, captured by the camera, between 1:18 p.m. and 1:19 p.m. According to the Declaration of Katherine Worden in this matter dated March 25, 2007, a taped line was placed on the sidewalk 50 feet north of the inner line of the crosswalk at the northern "leg" of the intersection of Second Avenue and 39th Street. Consequently, I could scale

off distances from the DVD. There was also a time stamp on the DVD which measured the progression of hours, minutes, and seconds.

8. Second Avenue has seven lanes, all southbound. For identification purposes, assume that the lanes were numbered from left to right (east to west), one through seven. The leftmost lane, Lane 1, was used for on-street parking for motor vehicles. The two rightmost lanes, Lanes 6 and 7, were used for on-street parking for motor vehicles (i.e., regular on-street parking in Lane 7 and double parking in Lane 6). The cyclists used Lanes 5 and 6 which were the rightmost lane available to them. Motorists used Lanes 2, 3, and 4, as well as Lane 5, before and after the group of cyclists.

9. The first cyclist, of the total of 47 cyclists in the ride, reached the stop bar at approximately 1:18:33 p.m. and the last cyclist, in the group, passed the stop bar at approximately 1:18:58 p.m. Thus, the ride, of 47 cyclists, took approximately 25 seconds to pass by.

10. When the first cyclist reached the stop bar, at 1:18:33 p.m., five cyclists were between the stop bar and the taped mark, fifty feet behind the stop bar. By 1:18:39 p.m., about six seconds later, the group had moved up fifty feet and there were 15 cyclists between the stop bar and the taped mark. By 1:18:46 p.m., about seven seconds after that, 16 cyclists were between the stop bar and the taped mark. By 1:18:52 p.m., about six seconds later, the last 11 cyclists were between the stop bar and four feet past the

taped mark. Thus the length of the group of cyclists was approximately 196 feet. The last cyclist passed the stop bar at 1:18:58 p.m.

11. The width of the Lanes 5 and 6 were hand measured by Katherine Worden on March 25, 2007. Each measured 9 feet 10 inches wide, or 9.83 feet. The cyclists typically rode two to three abreast and occupied a width of about one lane. Consequently, the 47 cyclists occupied approximately 1,927 square feet (9.83' x 196') or 41 square feet per cyclist (1,927 square feet / 47 cyclists). Worden also measured the length of the lanes on Second Avenue between 40th and 39th Streets, and found them to be 199.9 feet long

12. Using this density of cyclists, a ride of 50 cyclists would occupy approximately 208.5 feet of one lane.

13. It is noteworthy that a lone cyclist was well ahead of the group (i.e. approximately 27 feet ahead of the group). If this anomaly were removed from the sample and the remaining 46 cyclists were considered, then the length of the group would be 169 feet, and the density of cyclists would rise, compared to the density of the group with 47 cyclists. A ride of 50 cyclists, at the same density as the group with 46 cyclists, would occupy approximately 184 feet of one lane (or 36.2 square feet per cyclist).

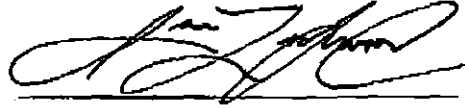
14. From a traffic flow perspective, there can be an advantage to having a leader out in front of a group such as shown on the DVD. A leader in this position can anticipate the change in traffic signal for the group, and stop at an intersection immediately prior to

the signal turning red or yellow, while signaling a stop to the group behind. In this way, the leader can reduce the frequency of the group being divided at a traffic signal or interfere with cross-traffic.

14. It took 25 seconds for the 47 cyclists to cross the stop bar, indicating a processing rate of approximately 113 cyclists per minute per lane. During the same time period, the three available lanes, for motorists, processed 19 motor vehicles, indicating a processing rate of approximately 15.2 motor vehicles per minute per lane, which is about one seventh or 13.5% the processing rate of the cyclists. The three lanes available to the motorists (i.e. Lanes 2, 3, and 4) within the 50 feet between the stop bar and the taped line were unencumbered by the cyclists.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 26th day of March, 2007

A handwritten signature in black ink, appearing to read "Ian Lockwood", written over a horizontal line.

IAN LOCKWOOD

FILED



**IAN M. LOCKWOOD, P.E.**  
**PRINCIPAL**  
**SENIOR TRANSPORTATION ENGINEER**

**EDUCATION**

Master of Civil Engineering, Carleton University,  
Canada, 1995

Bachelor of Civil Engineering, Carleton University,  
Canada, 1987

**EXPERIENCE**

Senior Transportation Engineer, Glatting Jackson,  
Orlando, Florida, 2001-present

City Transportation Planner, City of West Palm  
Beach, Florida, 1996-2001

Transportation Engineer, J.P. Braaksma &  
Associates Ltd., Ottawa, Ontario, 1987-1996

Military Engineer, Canadian Army, 1978-1988

**MEMBERSHIPS / REGISTRATION**

Association of Professional Engineers of Ontario  
American Planning Association  
Institute of Transportation Engineers  
Ontario Traffic Conference

**MAJOR AREAS OF EXPERTISE**

Context sensitive design (CSD)  
Traffic calming  
Site planning  
Transportation planning and policy

**PROJECTS**

City of West Palm Beach  
- Comprehensive Plan Transportation Element  
- Revitalize inner city neighborhoods & downtown  
- Attractive community-oriented streets  
- Site plan development with developers

Transportation conferences, seminars & workshops  
for professional organizations, universities, cities,  
and other organizations

CSD and traffic calming projects ranging from

- local streets to arterial streets
- residential to commercial streets
- single measure projects to area-wide projects
- retrofit measures to street reconstructions
- urban to rural applications
- policy development to design

Urban site plans for a variety of residential,  
commercial, recreational, and institutional land uses

**HONORS**

Award of Excellence, American Planning  
Association, Florida Chapter, Dixie Highway/Olive  
Avenue Downtown Urban Design Guidelines. 1999.

Certificate of Environmental Achievement, Renew  
America & the National Awards Council for  
Environmental Sustainability, City of West Palm  
Beach Traffic Calming Program. 1999.

1997 Past Presidents Award, ITE, Traffic Calming  
Plan for Route 50, Middleburg, VA.

**SAMPLE PUBLICATIONS/ PRESENTATIONS**

Keynote Speaker, *Road from Vision to Reality*,  
Vision to Reality Professional Workshop, City of  
Toronto, Ontario, February 2006

Interview, *Traffic in America*, ABC News, New  
York, New York, February 2006

Public Lecture, *Making Places: Creating Where We  
Live, Work, and Play*, Ideas Forum, Urban  
Transportation Showcase, Greater Vancouver  
Regional District, Vancouver, British Columbia,  
January 2005

National Public Radio, Transportation Expert,  
occasional guest between January 2005 and present

Keynote Speaker, *Context Sensitive Design*, 2003  
Community Impact Assessment Regional Workshop,  
Indianapolis, Indiana, September 2003

Keynote Speaker, *Healthy Cities*, 5<sup>th</sup> Annual Bike  
Walk Conference, Portsmouth, Virginia, April 6-8,  
2003

Keynote Speaker, *Transportation Language*, North  
Atlantic Transportation Planning Officials Annual  
Meeting, Cape May, New Jersey, September 2001

Speaker, *Arterial Traffic Calming*, @ ITE 69th  
Annual Meeting, Las Vegas, Nevada, August 1999

Lockwood, Ian M., & Stillings, Timothy, *Traffic  
Calming for a Better Urban Environment*, ISATA  
International Symposium on Automobile  
Technology and Automation, Dusseldorf, Germany,  
June 1998