



November 26, 2007

City Council Representatives
City and County of Denver
1437 Bannock Street, Room 451
Denver, CO 80202

RE: Council Bills 477 and 598, Series of 2007, Air Conditioners vs. Evaporative Coolers

Dear City Council Representative:

This letter is written on behalf the West Washington Park Neighborhood Association (“WWPNA”). WWPNA is a registered neighborhood organization, bounded physically by Broadway to the west, Downing to the east, I-25 to the south, and Speer Boulevard to the north.

WWPNA fully supports Bill 598, which will encourage the installation of evaporative cooler units and creates administrative efficiencies for the City. Evaporative coolers uniquely suited to the Colorado environment;

- Are quieter and more efficient than air conditioners
- Produce less heat and use less energy than air conditioners
- Directly support Greenprint Denver and our goals of sustainability.

WWPNA opposes Bill 477. The current law requires homeowners to consult with and gain the approval of their neighbors before installing an air conditioning unit in the side setback. Administrative review is imperative in this situation to assure that the placement of noisy air conditioning units is agreeable and fair to homeowners and neighbors alike.

The allowable noise level of 70 dB for air conditioners is too high for close set Denver urban homes. The majority of homes in the WWPNA boundaries were built without air conditioning, and many continue to depend on open windows and the movement of cooler air in the evening hours to cool their homes in the summertime. A poorly misplaced air conditioning unit will be loud and create heated air near a bedroom window, creating undue hardship for a neighbor.

WWPNA has spent significant time researching the effects of continual 24 hour noise levels. Someone who experiences continual 24 hour noise levels approaching 70 dB suffers risks to their own health safety and welfare:

- (a) Hearing Loss. Exposure to excessive noise can create hearing loss, particularly to sensitive groups such as children (who inherently are experiencing physiological changes and/or are enduring physical stress, such as rapid growth or illness). For fetuses during 27 to 29 weeks of gestation, the hearing threshold is approximately 40 dB. See “*Noise Effects Handbook*”, Office of Noise Abatement and Control of the United States Environmental Protection Agency (“EPA”), Revised July 1991, EPA 500-9-82-106 (the “Noise Handbook”), Section 2-7.

- (b) Sleep interference and/or deprivation. Individuals typically begin to experience difficulty falling asleep at noise levels of 40 to 50 dB, and experience a 30% probability of being awakened by sound levels of 70 dB. See “*Effects of Noise on People*,” Henning E. von Gierke and Kenneth Mck. Eldred, Noise/News International, Volume 1, Number 2, June 1993 (“Noise/News”), p. 78. The elderly typically are more readily awakened by excessive noise. For adequate protection against sleep interference, experts recommend that noise levels not exceed an indoor average of 45 dB.

There are material risks to public health, safety and welfare associated with sleep deprivation. See “*The Promise of Sleep*”, Dr. William C. Dement, M.D., Ph.D. Such risks include reduced longevity, depression of the immune system, and psychological depression. See “*The Promise of Sleep*”, pp. 263-275. Adequate sleep also is required for cell repair. *Id.* at p. 266-67. Furthermore, recent studies have found a real possibility that one of the causes of the significant increase in Type 2 diabetes is sleep deprivation. See “*MSNBC Health News*,” June 25, citing study recently conducted by Dr. Eve Van Cauter, University of Chicago. Experiments conducted by the University of Pennsylvania conclusively showed that people who get less than a full night’s sleep feel significantly less happy, more stressed, more physically frail, and more mentally and physically exhausted. *Id.* Sleep deprivation also increases complaints about other bodily problems, including headache, stomachache, and sore joints and muscles. *Id.* Sleep deprivation also causes reduction in the quality of life, work, ability to concentrate. See “*The Promise of Sleep*”. The National Sleep Foundation’s 1998 Omnibus Poll reports that about a third of all adults feel that daytime sleepiness interferes with their social lives, relationships with friends and family, and their recreational activities. See “*The Promise of Sleep*”, p. 274.

- (c) Diseases of the cardiovascular system, such as (heart disease, high blood pressure, stroke). See *Noise Handbook*, Sections 3-4 and 3-5.
- (d) Diseases of the digestive system, such as ulcers, colitis and other digestive disorders. See *Noise Handbook*, Sections 3-4 and 3-5.
- (e) Neuropsychological diseases, such as headaches, fatigue, insomnia, irritability, neuroticism, as well as such as cardiovascular disease. See *Noise Handbook*, Sections 3-4 and 3-5.
- (f) Endocrine and Biochemical disorders. See *Noise Handbook*, Sections 3-4 and 3-5.
- (g) Fetus Development, including possible low birth weights, incidence of birth defects such as clefts of the lip or palate and spinal malformations. See *Noise Handbook*.
- (h) General morbidity (illness).

The current procedures for a homeowner to violate the side setbacks with air conditioning units are necessary to protect the health, welfare and livability of Denver neighborhoods. The current procedures assure that neighbors are included in the process and given a voice. Bill 477 removes this right from neighbors.

Therefore, WWPNA urge you to pass bill 598 in favor of evaporative coolers and defeat bill 477.

Cordially,

Charlie Busch,
President, WWPNA

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